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ADEQUACY OF SERVICES REPORT

FOR

BARRHAVEN CONSERVANCY DEVELOPMENT CORPORATION

BARRHAVEN CONSERVANCY WEST

CITY OF OTTAWA

PROJECT NO.: 21-1226

JANUARY 2023
2ND SUBMISSION
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1.0 INTRODUCTION

David Schaeffer Engineering Limited (DSEL) has been retained to prepare an Adequacy of Services Report (AES) in support of the Barrhaven ***Conservancy West*** development area on behalf of Barrhaven Conservancy Development Corporation (BCDC).

The overall Conservancy land area is approximately 139.7 ha (all land use components) and is located within the City of Ottawa urban boundary in the Barrhaven ward. As illustrated in ***Figure 1***, the subject site is located north of the Jock River, east of Highway 416, west of Borrisokane Road and south of McKenna Casey Drive.

The focus of this report is for the ***Conservancy West*** land area that is located west of the existing Foster Ditch which bisects the overall BCDC landholdings and consists of vacant land. The subject lands are approximately 34.15ha in area (including all right-of-ways, residential area and park areas) and the proposed development draft plan ***Figure 2*** is provided for reference. The development area is currently zoned Development Reserve (DR) and is planned to be developed with a mix of detached single homes, townhomes, park blocks, open spaces and a road network.

A previous draft plan application has been submitted for the BCDC landholdings to the east of this development area.

The Conservancy West development area is outside of the Jock River 100-year limit as confirmed by the Rideau Valley Conservation Authority (RVCA). Refer to the RVCA confirmation letter in ***Appendix D***. The 100-year regulatory flood line is demonstrated in Drawing 1 (Grading) and Drawing 3 (Stormwater) in the ***Appendix***.

The objective of this report is to provide sufficient detail to demonstrate that the proposed development area can be supported by municipal services.

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1.1 Existing Conditions

The initial ***Conservancy West*** property topography is relatively flat with the existing ground elevations varying between 91 m and 92 m. All existing flows are either overland to the Jock River or conveyed to the Jock River by way of the O'Keefe Municipal Drain or the Foster Ditch (and their tributaries) which run north to south through the subject property. The property is within the Jock River watershed and is under the jurisdiction of the RVCA.

1.2 Summary of Pre-Consultation

The following provides a summary of the pre-consultation:

Ministry of the Environment, Conservation and Parks (MECP)

Prior consultations associated with the Conservancy Phase 1 development were previously undertaken for the approval of that phase of the development area.

A pre-consultation with the local MECP office has not yet been completed for the Conservancy West development area until the functional design details and requirements have been established with the City of Ottawa.

Rideau Valley Conservation Authority (RVCA)

Multiple consultations, analysis and submissions were coordinated with the RVCA to establish that the development area is outside of the Jock River 100-year limit. See the RVCA documentation in ***Appendix D*** for reference.

1.3 Existing Permits / Approvals

Key approvals associated with the advancement of development of the Barrhaven Conservancy area, are presented in the following table. The most relevant approval is the Environmental Compliance Approval (ECA) for the South Nepean Collector sanitary trunk sewer that future phases will be connecting to. The document is provided in ***Appendix A*** for reference.

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Table 1A: Existing Permits / Approvals

Agency	Approval Type	Approval Number	Remarks
Ministry of the Environment, Conservation and Parks (MECP)	Environmental Compliance Approval	# 8129-AB7LDF (June 23, 2016)	South Nepean Collector existing approval (sanitary outlet for development area)
MECP	Environmental Compliance Approval	# 4357-CHMQEM (Sept. 1, 2022)	Sanitary and storm sewer approvals for Conservancy lands east of Borrisokane Road
MECP	Permit to take Water	#5633-C2RQPL (May 26, 2021)	Water taking from Building Excavation, Site Servicing, SWMW, In-Water Works, Ponded Surface Water
Rideau Valley Conservation Authority (RVCA)	RVCA Letter of Permission under O.Reg. 174/06	RV5-4419	Letter of permission related to placement of fill within a regulated area.

1.4 Required Permits / Approvals

The City of Ottawa must approve detailed engineering design drawings and reports prior to future construction of the municipal infrastructure identified in this report. This will occur as part of the Plan of Subdivision application process and detailed design.

Based on pre-consultation with City staff, the additional approvals and permits listed in the following table are expected to be required prior to construction of the municipal infrastructure detailed herein. Please note that other permits and approvals may be required, as detailed in the other studies to be submitted as part of the Plan of Subdivision application (e.g. *Tree Conservation Report, Environmental Impact Statement, Phase 1 Environmental Site Assessment, Headwater Drainage Feature Assessment, etc.)*

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Table 1B: Required Permits/Approvals

Agency	Permit/Approval Required	Trigger	Remarks
MECP	Environmental Compliance Approval	Construction of new sanitary and storm sewers throughout the subdivision.	The MECP will review the sanitary and storm sewer design through the City of Ottawa transfer of review process.
MECP	Environmental Compliance Approval	Implementation of oil-grit separator units for quality control.	The MECP will review the stormwater management appurtenance design through the City of Ottawa transfer of review process.
MECP	Permit to Take Water	Construction of proposed land uses (e.g. basements for residential homes) and services.	Pumping of groundwater may be required during construction, given groundwater conditions and proposed land uses and on-site/off-site municipal infrastructure.
City of Ottawa	MECP Form 1 – Record of Watermains Authorized as a Future Alteration.	Construction of watermains throughout the subdivision	The City of Ottawa will review the watermains on behalf of the MECP through the Form 1 – Record of Watermains Authorized as a Future Alteration.
RVCA	Permit under Ontario Regulation 174/06, RVCA's Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation	Grading (proposed development & potential temporary access roads) within the subject lands (i.e. crossing of Foster Ditch)	Supporting applications and documentation as required through consultation with the RVCA.
RVCA	Outlets to Jock River	In conjunction with issuance of MECP applications	Supporting applications and documentation as required through consultation with the RVCA.
RVCA	Alteration to Watercourses (O'Keefe Drain)	As necessary through consultation with the RVCA	Supporting applications and documentation as required through consultation with the RVCA.
City of Ottawa	Commence Work Notification (CWN)	Construction of new sanitary and storm sewers throughout the subdivision	The City of Ottawa will issue a commence work notification for construction of the sanitary and storm sewers once an approval is issued by the MECP.

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2.0 GUIDELINES, PREVIOUS STUDIES, AND REPORTS

2.1 Existing Studies, Guidelines, and Reports

The following studies were utilized in the preparation of this report.

- Ottawa Sewer Design Guidelines,
  City of Ottawa, *SDG002,* October 2012
  (City Standards)
  - Technical Bulletin ISDTB-2014-01
    City of Ottawa, February 5, 2014
    (ITSB-2014-01)
  - Technical Bulletin PIEDTB-2016-01
    City of Ottawa, September 6, 2016
    (PIEDTB-2016-01)
  - Technical Bulletin ISTB-2018-01
    City of Ottawa, March 21, 2018
    (ISTB-2018-01)
  - Technical Bulletin ISTB-2018-04
    City of Ottawa, June 27, 2018
    (ISTB-2018-04)
- Ottawa Design Guidelines – Water Distribution
  City of Ottawa, July 2010.
  (Water Supply Guidelines)
  - Technical Bulletin ISD-2010-2
    City of Ottawa, December 15, 2010.
    (ISD-2010-2)
  - Technical Bulletin ISDTB-2014-2
    City of Ottawa, May 27, 2014.
    (ISDTB-2014-2)
  - Technical Bulletin ISTB-2018-02 / ISTB-2019-02
    City of Ottawa, March 21, 2018 / July 08, 2019
    (ISTB-2018-02 / ISTB-2019-02)
  - Technical Bulletin ISDTB-2021-03
    City of Ottawa, August 18, 2021
    (ISTB-2021-03)
- Design Guidelines for Sewage Works,
  Ministry of the Environment, Conservation and Parks, 2008. (formerly MOECC)
  (MECP Design Guidelines)

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- Stormwater Planning and Design Manual,
  Ministry of the Environment, March 2003.
  (SWMP Design Manual)

- City of Ottawa Official Plan,
  adopted by Council 2003.
  (Official Plan)

- City of Ottawa Secondary Plan – Former Nepean – South Nepean Urban Area – Areas 9 and 10,
  Adopted by Council 2003.
  (Secondary Plan)

- South Nepean Collector: Phase 2 Hydraulics Review / Assessment Technical Memorandum
  Novatech, August 2015
  (Novatech SNC Memo)

    - South Nepean Collector: Phase 2 Preliminary Design Report,
      Novatech, March 2016
      (Novatech SNC Design Report)

- Strandherd Drive Widening Project, South Nepean Collector: Phase 3 Sanitary Flow Calculations
  Novatech, May 2019
  (2019 Novatech SNC Design Report)

- Hydraulic Potable Water Assessment for Barrhaven Conservancy Development Corporation, March 2021
  (Stantec Hydraulic Analysis)

- Jock River Reach One Subwatershed Study
  Stantec, 2007
  (Jock River SWS)

- Geotechnical Investigation, Proposed Residential Development, Conservancy Lands West, Ottawa, Ontario
  Paterson Group, September 27, 2019 (Project No. PG5036-1)
  (Geotechnical Report)

- Environmental Impact Statement for Barrhaven Conservancy East
  Kilgour & Associates Ltd., July 29, 2020
  (Kilgour EIS)

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- Master Infrastructure Review – Barrhaven Conservancy
  David Schaeffer Engineering Ltd., July 2021
  (Conservancy MIR)

- Design Brief for Barrhaven Conservancy East – Phase 2, 3, & Jock River
  David Schaeffer Engineering Ltd., June 2022
  (DSEL East Design Brief)

- Adequacy of Services Report - Barrhaven Conservancy East – Phase 5
  David Schaeffer Engineering Ltd., December 2022
  (DSEL East Ph5 Report)

- Barrhaven Conservancy East (Phases 2, 3, 4 & Jock River): Water Distribution System Analysis, Stantec, June 2, 2022
  (Stantec Hydraulic Analysis - East)

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3.0 WATER SUPPLY SERVICING

3.1 Existing Water Supply Services

The subject property is located adjacent to the City of Ottawa's Pressure Zone (PZ) 3SW (previously known as PZ BARR). PZ SUC services the lands that are east of the subject property, as well as south of the Jock River.

The City of Ottawa has recently reconfigured the pressure zones servicing Barrhaven and the South Urban Community (SUC) in order to improve reliability and efficiency and to increase pumping capacity to accommodate for future growth in the area. There are three pumping stations servicing Zone 3SW and Zone SUC as follows: the Fallowfield Road Pumping Station (FRPS), the Barrhaven Pumping Station (BPS) and the Ottawa South Pumping Station (OSPS).

The future watermains to be implemented through the detailed design process for the adjacent Conservancy East lands will facilitate water service to the West area. These services will be further extended to provide the requisite water supply to this development area.

3.2 Water Supply Servicing Design

Stantec Consulting Limited was retained to perform a hydraulic assessment for the Conservancy East Lands. The ***Hydraulic Potable Water Assessment for Barrhaven Conservancy Development Corporation (Stantec Hydraulic Analysis)*** prepared by Stantec (March 2021) previously supported the advancement of the Conservancy East lands east of Borrisokane road. Subsequently, as part of the detailed design for the approved phases east of Borrisokane Road, Stantec prepared an updated study "***Barrhaven Conservancy East (Phases 2, 3, 4 & Jock River): Water Distribution System Analysis (June 2022 – Stantec Hydraulic Analysis - East***). The analysis reviewed the system requirements of the development area on the west and east sides of Borrisokane Road but only the detailed design of the areas east of Borrisokane Road were advanced to detailed design.

Stantec has prepared an updated analysis to evaluate the distribution system with the three watermain feeds to the overall development area that were assessed in the Conservancy East design. Their "***Barrhaven Conservancy West: Water Distribution System Analysis (January 2023)*** is provided in ***Appendix B***.

The proposed water servicing layout is presented in ***Figure 3***.

The following table summarizes the relevant Water Supply Design Criteria which will be employed in the design of the subject property.

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Table 2A: Water Supply Design Criteria

Design Parameter	Value
Extracted from Section 4: Ottawa Design Guidelines, Water Distribution (July 2010)	
Residential – Detached Single	3.4 p/unit
Residential – Townhome/ Semi	2.7 p/unit
Residential – Apartment	1.8 p/unit
Minimum Watermain Size	150 mm diameter
Minimum Depth of Cover	2.4 m from top of watermain to finished grade
During normal operating conditions desired operating pressure is within	350 kPa and 480kPa
During fire flow operating pressure must not drop below	140 kPa
Residential – Detached Single	280 L/cap/day
Residential – Rear Lane Town & Back-to-Back	2880 L/cap/day
Average Day (AVDY)	Population x Demand
Max Day (MXDY)	AVDY x 2.5
Peak Hour(PKHR)	MXDY x 2.2

Fire Flow Demand

Fire Flow requirements are established in the boundary condition request found in ***Appendix B*** as prepared by Stantec. Based on anticipated unit configurations and separations the City's fire flow cap of 13,000 L/min for single dwellings and traditional townhomes as outlined in *ISDTB-2014-02* does not apply and separation of fire areas with units of ordinary construction, as well as architectural elements, will be incorporated to meet target fire flows. The fire flows will be calculated in accordance with the Fire Underwriters Survey's Water Supply for Public Fire Protection Guideline (2020).

Boundary Conditions

To support the preparation of a hydraulic analysis for the subdivision, boundary conditions were provided by the City of Ottawa for the anticipated water demands and are summarized in the following table. See ***Appendix B*** for full details of the boundary condition request submitted.

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Table 2B: Boundary Conditions (from *Stantec Hydraulic Analysis – West* report)

HGL (m) - Zone SUC Servicing Conditions			
Demand Scenario	**Three Connections**		
	Connection 1 (1)	**Connection 2 (2)**	**Connection 3 (3)**
AVDY	146.7	146.7	146.6
PKHR	141.4	141.3	141.0
AVDY +FF	139.7	138.1	139.8
MXDY +FF	137.9	136.2	137.9

(1) Ground elevation at Connection 1 (Chapman Mills Drive) = 93.10 m
(2) Ground elevation at Connection 2 (Danson Gardens Grv / Darjeeling Ave) 91.80 m
(3) Ground elevation at Connection 3 (Flagstaff Dr) 92.30 m
As provided by the City of Ottawa via email on December 6, 2022 (J.Bougadis)

Water Demand Calculations

A summary of water demands for the subject site is presented in the following table as derived from the criteria above and the ***Stantec Hydraulic Analysis*** found in ***Appendix B***.

Table 2C: Water Demand Estimate

		Unit Count	Pop (1)		AVDY(2) (L/s)	MXDY(3) (L/s)	PKHR(4) (L/s)
East	Single Family	782	2,659		-	-	-
	Townhouse	606	1,636		-	-	-
	Subtotal	***1,388***	***4,295***		***13.92***	***34.80***	***76.55***
West	Single Family	462	1,571		-	-	-
	Townhouse	499	1,347		-	-	-
	Subtotal	***961***	***2,918***		***9.46***	***23.64***	***52.01***
	Totals	***2,349***	***7,213***		***23.38***	***58.44***	***128.57***

(1) Population per unit is 3.4 for Single Family and 2.7 for Townhomes
(2) AVDY = Average Day
(3) MXDY = Maximum Day
(4) PKHR = Peak Hour
(5) See Stantec Hydraulic Analysis in ***Appendix B*** for details.

3.3 Summary of Hydraulic Modeling Analysis

A watermain analysis has been prepared to confirm that the network is sized adequately, which is the greater of maximum day plus fire and maximum hour. City review comments on the prior ***Stantec Hydraulic Analysis - East*** noted that the

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preferred system configuration for the entirety of the Conservancy development area is for three connections to the existing network and those results are presented below.

System Pressures

The modeling indicates that the development can be adequately serviced by the proposed watermain network. Modeled service pressures for the development are summarized the following table. The detailed pipe and junction tables are contained in the ***Stantec Hydraulic Analysis***, enclosed in ***Appendix B.***

Table 2D: Summary of Available System Pressures

	AVDY Maximum Pressure		Peak Hour Demand Minimum Pressure	
	kPA	psi	kPA	psi
Conservancy West	546	79.23 (J239)	436	63.22 (J297)
*Note: See model results in the Appendix C of the **Stantec Hydraulic Analysis** memo.*				

The generally accepted best practice is to design new water distribution systems to operate between 350 kPa (50 psi) and 480 kPa (70 psi) as outlined in the City of Ottawa Design Guidelines. Where pressures exceed 80psi pressure reducing valves (PRV) shall be implemented as per the Ontario Building Code.

Available Fire Flows

The minimum allowable pressure under fire flow conditions is 140 kPa (20 psi) at the location of the fire. A summary of the available fire flows is presented in the following table. The detailed fire flow reports are found in the ***Stantec Hydraulic Analysis - East*** enclosed in ***Appendix B***.

Table 2E: Summary of Available Fire Flows

	Required Fire Flow (L/s)	Minimum Available Flow (L/s)	Junction ID
Conservancy West	217	183.84 177.61 197.95	J363 J365 J369
*Note: See model results in the Appendix C of the **Stantec Hydraulic Analysis**.* *It is anticipated that the above minor flow node can be managed by procedures noted in ISDTB-2018-02 (See Section 3.2 of Stantec report)*			

As shown in the above table, the model predicts the majority of the network will be able to provide the required 13,000 L/min (217 L/s) fire flows. The junctions noted are marginally below this threshold but it is anticipated that at detailed design fire control measures such as ordinary construction units, firewalls and/or using the alternativ4e

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hydrant spacing procedure outline in ISDTB-2018-2 can mitigate these areas (if fire flow results remain the same at detailed design). Detailed results are included in the ***Stantec Hydraulic Analysis***, enclosed in ***Appendix B***.

System Reliability

Various major watermain failure scenarios were reviewed by Stantec. Some scenarios resulted in fire flows that are within the 10,000 L/min range that can be reviewed in more thoroughly at detailed design. See discussion in Section 3.3 of the ***Stantec Hydraulic Analysis*** in ***Appendix B.***

3.4 Water Supply Conclusion

The subject lands are have been reviewed by Stantec to confirm the proposed distribution system will meet the required demands and redundancy requirements.

The network is proposed to consist of 152 mm, 203 mm, 254 mm and 305 mm watermains.

Under AVDY demand conditions the model results indicate that maximum pressures are below the allowable maximum pressure of 80 psi as per the City of Ottawa Design Guidelines. Under PKHR demand conditions the minimum pressures are within the City's system pressure requirements.

Under MXDY+FF demand conditions the assumed required fire flow of 13,000 L/min can be achieved for the majority of the proposed distribution network at full build out conditions. There are several isolated locations where the FF may be slightly less than the 13,000 L/min threshold (i.e. worst case scenario of 10,657 L/min at Junction 365) but it is assumed that these isolated locations can be managed with fire control measure as required at the detailed design stage.

Reliability assessments indicate that for AVDY+FF conditions there are some locations where system flows are slightly below the fire flow of 13,000 L/min (i.e. in the 10,000 to 11,000 L/min range). At detailed design these areas will be assessed with fire flow measures proposed to mitigate potential shortfalls.

Watermain crossings (300mm diameter) of the O'Keefe Drain and Foster Ditch will be accomplished via the implementation of a 610mm diameter steel casing (gauge 12.7mm – Grade 3) which will have 1m clearance below the culverts and extend up to 5m beyond the edge of the culverts. Pressure grout of 1:5 cement/sand ratio will surround the pipe. Details to be established at future detailed design.

Future modelling at the detailed design stage will confirm phasing of the extensions of trunk watermains and sizing of the local watermain network. The proposed water supply design will conform to all relevant City and MECP Guidelines and Policies.

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4.0 WASTEWATER SERVICING

4.1 Existing Wastewater Services

Per the ***South Nepean Collector (SNC) Wastewater Servicing Study and Functional Design Report*** by Dillon in October 2003 ***(Dillon SNC Report)***, the subject property is tributary to the South Nepean Collector (SNC) sewer as urban development land.

The SNC (previously called the Jock River Collector) sewer operates north of the subject property within Strandherd Drive prior to travelling south down a Chapman Mills Drive (CMD) and then turns eastward within the future CMD right-of-way (ROW).

The ***South Nepean Collector Phase 2: Hydraulics Review / Assessment*** memo was prepared by Novatech Engineering Consultants on August 20, 2015 ***(Novatech SNC Memo)*** to provide an update to the sanitary design flows for Phase 2 of the South Nepean Collector, as previously documented in the ***South Nepean Collector (SNC) – Functional Design Report and Update*** by Dillon in 2012 ***(Dillon SNC Report and Update)***. In addition, Novatech is also currently the engineer of record for the design and implementation of the Phase 3 extension of the SNC.

4.2 South Nepean Collector Phase 3 – Preliminary Design

The 2015 ***Novatech SNC Memo*** contemplated that the Conservancy Phase 1 development area (north of the Fraser-Clarke Watercourse) would be serviced by the 900 mm diameter SNC sewer running adjacent to the property within the future extension of CMD. This is represented by area "A6-E" within the "*Sanitary Drainage Areas and Land Use – Fig.1"* plan within the 2015 Novatech memo (note that the actual tributary area and population varied slightly).
For the Phase 3 extension of the SNC, Novatech has prepared another review of sanitary flows within their technical memorandum titled "***Strandherd Drive Widening Project***, ***South Nepean Collector Phase 3: Sanitary Flow Calculations***" May 30, 2019 ***(2019 Novatech SNC Memo).*** The memorandum, along with the design sheet calculations from the Novatech memo, are provided in ***Appendix C*** for reference along with DSEL annotations on key items in the figure and design sheets. The updated "*Sanitary Drainage Areas and Land Use – Fig.1" (May 2019)* plan is essentially reflective of the same tributary information that was provided in the 2015 study (the plan has been marked up to reflect the Conservancy areas as a frame of reference). The associated design sheet also reflects updated City wastewater design criteria that was not accounted for in the 2015 study and is discussed further in the following section.
Report excerpts are provided in ***Appendix C*** for the SNC Phase 2 analysis as well as draft information associated with the Phase 3 extension. The location of the SNC sewer is shown in ***Figure 4***.

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4.3 Wastewater Design

The subject property is planned to be serviced by an internal gravity sanitary sewer system that is to generally follow the local road network with select servicing easements as required to achieve efficiencies in servicing and grading designs. The wastewater servicing plan can be seen in ***Drawing 4***.

Similar to the proposed Conservancy East development, this report proposes that the drainage area of the SNC sanitary sewer be expanded to include the entirety of the Conservancy property. The sewer network will connect to the off-site SNC sanitary sewer within the future CMD at existing manhole 'SANMH8' as identified in the Novatech SNC Phase 2 design Drawing No. 20 provided in ***Appendix C*** for reference (City contract number ISD14-2033). As noted in the prior section, the 2015 ***Novatech SNC Memo*** was derived flows based on the City guideline parameters of the time (namely 350 L/capita/day, infiltration allowance of 0.28 L/s/ha and commercial properties at 50,000 L/ha/d). The following table summarizes the new City design guidelines and criteria to be applied to the ***Conservancy East*** sewer design as well for the determination of the projected flows to be tributary to the SNC along the frontage of the Conservancy Phase 1 development area.

Table 3: Wastewater Design Criteria

Design Parameter	Value
Current Design Guidelines	
Residential - Single Family	3.4 p/unit
Residential – Townhome/ Semi	2.7 p/unit
Residential – Apartment	1.8 p/unit
Average Daily Demand	280 L/d/person
Peaking Factor	Harmon's Peaking Factor. Max 4.0, Min 2.0
Commercial / Institutional Flows	28,000 L/ha/day
Commercial / Institutional Peak Factor	1.5
Infiltration and Inflow Allowance	0.33 L/s/ha
Park Flows	28,000 L/ha/d
Park Peaking Factor	1.0
Sanitary sewers are to be sized employing the Manning's Equation	$Q = \frac{1}{n} A R^{2/3} S^{1/2}$
Minimum Sewer Size	200mm diameter
Minimum Manning's 'n'	0.013
Minimum Depth of Cover	2.5m from crown of sewer to grade
Minimum Full Flowing Velocity	0.6m/s
Maximum Full Flowing Velocity	3.0m/s
Extracted from Sections 4 and 6 of the City of Ottawa Sewer Design Guidelines, October 2012, and associated Technical Bulletins.	

Several design sheets are provided in ***Appendix C*** for reference:

- Sanitary design sheet for the lands east of Borrisokane Road;

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- Design sheet and drainage plan for the recently submitted Conservancy Phase 5 development area for adjustments to that previously approved draft plan (bounded by the Foster Ditch to the west and Borrisokane Road to the east);
- Design sheet and drainage plan for Conservancy West (this current application).

Within the Conservancy East design sheet the area and flows from the lands west of Borrisokane Road are highlighted where flows enter the development area at the westward stub from MH10A. That design sheet projected a flow of 77.81 L/s.

Based on the Conservancy East Phase 5 draft plan, and updated concept plans for the Conservancy West development area, the flows shown at the eastern limit of Phase 5 (see Phase 5 design sheet in ***Appendix C***) projected ~68.96 L/s at MH 532A where it outlets to the MH10A noted above. As such, downstream systems are sufficient and no negative impacts given that flows are lower than the previously projected 77.81 L/s.

Updates to the development area for Conservancy West were completed after the Phase 5 submission. The design sheet for the current Conservancy West submission shows a projected flow of 45.84 L/s to Phase 5 whereas the Phase 5 submission had estimated a flow of 56.22 L/s. Flows from Conservancy West are lower therefore no downstream impacts.

4.4 Sanitary Lift Station

As documented within the ***Conservancy MIR*** the design of the gravity sewers for the Conservancy development areas has been kept the sewer inverts as low as possible from its connection point at the South Nepean Collector. Despite this, the invert of the existing Foster Ditch, which is along the easternmost limit of the Conservancy West draft plan area, does impart a constraint for the sanitary sewer crossing. This constraint will necessitate the inclusion of a low lift sanitary pump station, west of the Foster Ditch, in order to provide sanitary service upstream.

Preliminary review of the requirements by Stantec indicates the following pump station characteristics:

The proposed pumping station will be of wet well type, with two submersible sewage pumps (one duty one standby) estimating a required capacity of 60 L/s +/-. The main components will be:

- Precast concrete or fiberglass wet well, 2.4 m in diameter;
- Two submersible sewage pumps with the duty point of 60 L/s at 14.8 m total dynamic head (initial estimate to be finalized at detailed design);
- Approximately 90 m long forcemain (twin), 150 mm dia., PVC SDR 26 or equal;
- Bypass chamber for pumping the sewage during wet well inspections/repairs or emergency situations;

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- Precast control building with electrical and SCADA equipment;
- Permanent power supply (transformer);
- Standby Power: Generator (diesel or natural gas);
- SCADA communication tower;
- Approximately 620m^2 block of land for the facility based on past experience on a facility of this nature (Note: final block size may vary slightly based on the detailed design/layout of the facility);
- The proposed facility is adjacent to the Foster Ditch and future residential development. The nearest residential units would be ~35m north, ~30m west, ~12m south or ~75m to the east. Separation distances will ultimately depend on the siting of the station;
- Typical carbon filters would be added to venting to mitigate potential odor issues.

The development area and pumps station location are in close proximity to the Jock River with limited opportunity for discharge to a watercourse or storm sewer. The incoming sanitary sewer invert to the station is ~86.41m. The Foster Ditch immediately adjacent to the facility (to the east) has an invert of 90.20. The 25-year water elevation of the Jock River in this vicinity is ~91.57m and the 100-year water elevation is ~91.89m. An overflow siphon to the sanitary outlet manhole is feasible due to the relatively minor elevation difference between the inlet at the lift station versus the gravity outlet to the east of the Foster Ditch (~ +2.0 to 2.5m).
As an extra level of protection during an overflow situation, along with the gravity outlet option noted above, the sewage would have to be pumped by pumper trucks (or temporary pumps) from the wet well to the adjacent sewers or to the Foster Ditch (depending on the type of emergency). The response time for the Operators would need to be calculated based on the available storage in the wet well and within the incoming sanitary sewer. Wet well and/or sanitary sewers could be oversized to increase the available storage to accommodate the response time so that it would be within acceptable limits based on City experience. This will be discussed and addressed in detail during the preliminary station design.

4.5 Wastewater Servicing Conclusion

The subject property will be serviced by local sanitary sewers, an on-site trunk sanitary sewer, and the off-site SNC sanitary sewer per previous reports. There is residual capacity in the downstream SNC providing sufficient capacity for the peak sanitary flows for the subject property, including external commercial and community park flows. Projected flows from Conservancy West are lower than those previously estimated.

The Conservancy West area will require a low lift sanitary pumping station due to a constraint imposed by the existing Foster ditch watercourse that bisects the property which does not allow for gravity drainage all the way to the SNC connection point. Detailed design for the station will be coordinated with the City during the detailed design stage for the development area.

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5.0 STORMWATER CONVEYANCE

5.1 Existing Stormwater Drainage

The subject property is within the Jock River watershed. Per the existing topography characterized in available City of Ottawa base mapping, as well as site specific survey, all flows from the subject property are ultimately conveyed to the Jock River by a series of watercourses, sheet flow and minor ditches. The Foster Ditch and the O'Keefe Municipal Drain are the main stormwater conveyances within the Conservancy West property that convey stormwater to the Jock River.

5.2 Proposed Stormwater Management Strategy

Various stormwater strategies were discussed within the Master Infrastructure Review (MIR) prepared previously. Alternatives reviewed were:

Alternative 1 – Oil and Grit Separators & Treatment Train to Naturalized Wetlands*
Alternative 2 – Stormwater Management Wetland Facilities in the Floodplain
Alternative 3 – Stormwater Management Wetland Facilities out of the Floodplain
Alternative 4 – Modified Etobicoke filtration System (MEFS)

For the purposes of this AES update for Conservancy West, Alternative 1 continues to be advanced as per the evaluation provided in the MIR and per discussions with the City of Ottawa on July 20, 2021. This alternative:

- A storm sewer system designed to capture at least the minimum design capture events in accordance with the amendment to the storm sewer and stormwater management elements of the Ottawa Design Guidelines – Sewer (Technical Bulletin PIEDTB-2016-01). The stormwater runoff will be treated before ultimately being released into the natural heritage features and the Jock River as per the ***Jock River Reach One Subwatershed Study*** prepared by Stantec in 2007 ***(Jock River SWS)***.
- All proposed units will be equipped with sump pumps due to local constraints;
- A treatment train approach to attain an Enhanced Level of Protection (80% total suspended solids (TSS) removal) per MECP guidelines consisting of:
    - Deep sump catchbasins;
    - The incorporation of infiltration-type LIDs within the right-of-way extending out from catchbasin locations (see ***Figure 5*** in the ***Figures & Drawings*** section). Future detailed grading will allow for the determination of suitable locations in order to yield optimal benefit from this LID. See Section 5.7 for additional LID discussion.

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  - Multiple oil and grit separators (OGS) units to provide TSS treatment with outlets that are above the 2-year event summer water levels on the Jock River;
  - The storm systems will discharge the treated stormwater at multiple outlets located along the southern natural heritage corridor, connecting via channels. Discharge locations are demonstrated in the ***Storm Tributary Area*** plan in the ***Figures & Drawings*** section
- An on-site road network designed to maximize the available storage within right-of-ways for the 100-year design event, where possible; and
- An overland flow route designed to safely convey stormwater runoff flows in excess of the on-site road storage.

The design for the site proposes to have stormwater flows conveyed through the development area of the subject property via an underground sewer network. The stormwater runoff will be treated before ultimately being released into the natural heritage features and the Jock River as per the ***Jock River Reach One Subwatershed Study*** prepared by Stantec in 2007 ***(Jock River SWS)***.

The proposed stormwater design layout is shown on ***Drawing 3*** with the stormwater management design consisting of:

- A storm sewer system designed to capture at least the minimum design capture events in accordance with the amendment to the storm sewer and stormwater management elements of the Ottawa Design Guidelines – Sewer (Technical Bulletin PIEDTB-2016-01);
- Multiple oil and grit separators (OGS) designed to assist with achieving the required Enhanced Level of Protection per MECP guidelines, along with additional treatment train elements, via treatment of the stormwater captured by the storm sewer network;
- The storm systems will discharge the treated stormwater at multiple outlets located along the natural heritage corridor, connecting via naturalized channels outletting to the Jock River. Discharge locations are demonstrated in ***Drawing 3***;
- Inverts of storm outlets are set at the 2-year summer water levels of the Jock River;
- An on-site road network designed to maximize the available storage within right-of-ways for the 100-year design event, where possible, with controlled release of stormwater to the minor storm system; and
- An overland flow route designed to safely convey stormwater runoff flows in excess of the on-site road storage.

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Although quantity control has not typically been required for this reach of the Jock River, as per the ***Jock River SWS***, the quantity of stormwater runoff exiting from the subject property will be minimized by optimizing on-site storage in the sags of the proposed road network, which in turn minimizes the size of downstream storm sewer infrastructure. It is noted that the RVCA is currently reviewing the SWM requirements within the Jock River Reach 1 area. In consideration of this, J.F. Sabourin and Associates (JFSA) has undertaken a review of the existing quantity control recommendations and the existing, and proposed, development conditions for this area. The findings are presented in the JFSA memorandum *Review of Quantity Control Requirement for Jock River Reach 1 (March 2021)* provided in ***Appendix D*** which concludes that quantity controls will still not be required for this reach of the Jock River.

Post-Development Stormwater Management Targets

Stormwater management requirements for the proposed alternative Stormwater management scheme have been adopted from the ***Jock River SWS***, ***City Standards***, and the ***MECP SWMP Manual***.

Given the general criteria mentioned above, the following specific standards are anticipated for stormwater management within the subject property:

- Enhanced quality treatment will be provided for stormwater runoff from the subject property, corresponding to a long-term average TSS removal efficiency of 80%, as defined by the MECP prescribed treatment levels;
- Downstream receiving watercourses will be assessed for responses to planned stormwater management outflows, and stabilization mitigation measures will be planned as required;
- Storm sewers on local roads are to be designed to provide at least a 2-year level of service without any ponding per the City's latest Technical Bulletin PIEDTB-2016-01;
- Storm sewers on collector roads are to be designed to provide at least a 5-year level of service without any ponding per the City's latest Technical Bulletin PIEDTB-2016-01;
- For less frequent storms (i.e. larger than 2-year or 5-year), the minor system sewer capture will be restricted with the use of inlet control devices to prevent excessive hydraulic surcharges;
- Under full flow conditions, the allowable velocity in storm sewers is to be no less than 0.80 m/s and no greater than 6.0 m/s;
- For the 100-year storm and for all roads, the maximum depth of water (static and/or dynamic) on streets, rear yards, public space and parking areas shall not exceed 0.35 m at the gutter;

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- The major system shall be designed with sufficient capacity to allow the excess runoff of a 100-year storm to be conveyed within the public ROW, or adjacent to the ROW, provided the water level does not touch any part of the building envelope; must remain below all building openings during the stress test event (100-year + 20%); and must maintain 15 cm vertical clearance between spill elevation on the street and the ground elevation at the nearest building envelope;
- Flow across road intersections shall not be permitted for minor storms (generally 5-year or less);
- When catchbasins are installed in rear yards, safe overland flow routes are to be provided to allow the release of excess flows from such areas. A minimum of 30 cm of vertical clearance is required between the rear yard spill elevation and the ground elevation at the adjacent building envelope;
- The product of the maximum flow depths on streets and maximum flow velocity must be less than 0.60 m^2/s on all roads.

Quality Control

Per the ***Jock River SWS,*** Enhanced quality treatment will be provided for stormwater runoff from the subject property, corresponding to a long-term average TSS removal efficiency of 80%, as described by the MECP prescribed treatment levels. See Section 5.3 for quality control approach and discussion.

Quantity Control

As noted in the ***Jock River SWS***, quantity control is not anticipated to be required for outlets to the Jock River, however, some quantity control may be provided by erosion storage, as erosion thresholds for any watercourses/outlets will be respected where required. As noted in Section 5.2, JFSA has reviewed the current/future development conditions contributing to this reach of the Jock River and concludes that quantity control will still not be required. See "*Review of Quantity Control Requirement for Jock River Reach 1 (JFSA March 2021)* provided in ***Appendix D***.

5.3 Stormwater Management Design

Treatment Train Approach

JFSA previously (June 2021 memo) prepared a review of various potential stormwater quality treatment options that were investigated for the development. These included options, and combinations of options, as summarized in the following updated table. Each of the options has an expected total suspended sediment (TSS) removal capability, varying from 5% to 88%. This review assessed how the required Enhanced Level of Protection (80% TSS removal) could be achieved when the options are used in

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a treatment train approach, consistent with the expected requirements of the upcoming MECP *Consolidated Linear Infrastructure* policy.

Table 1: Quality Control Alternatives – Treatment Train to achieve 80% TSS Removal

Selection and comparison of alternatives

Method	TSS Removal	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 8
Street Sweeping (Monthly)	5%								
Street Sweeping (Weekly)	10%								
Street Sweeping (Weekly with Elgin Eagle)*	88%	x							
Curb Cut with Grass Swales	75%			X					
Curb Cut with Infiltration Trenches	80%								
Catchbasin Inserts (CB Shield)*	27%		X		X	X		X	
Deep Sump Catch Basin	25%				X		X		X
Infiltration/ Filtration Trenches**	80%				X	X	X		
Infiltration at CBs, per MOE Table 3.2 (22.5m³/ha)	70%								X
OGS*	50%			X					X
JellyFish*	85%							X	
SWM Pond (Wet Pond)	80%		X						
		=======	=======	=======	=======	=======	=======	=======	=======
Overall Performance		88.0%	85.4%	87.5%	89.1%	85.4%	85.0%	89.1%	**88.8%**

Treatment Train Overall Performance = 1 - (1- TSS Removal Rate Method 1) x (1- TSS Removal Rate Method 2) x (1- TSS Removal Rate Method 3 x ...)

*) TSS Removal as documented by ETV Canada

**) includes the use of Etobicoke infiltration or filtration systems or other permutations of the same

The above table provides a summary of the TSS removal for the various methods that were considered. An option of infiltration LID measures located at catchbasin locations has been added as a method, and to Alternative 8 (see further discussion regarding this method below). The options, and combinations of options, have been assessed and shown to meet or exceed the required 80% TSS target.

For the development area, the updated Alternative 8 option demonstrates an estimated TSS removal of 88.8% for that particular treatment train approach which has been discussed with City staff for the approval of prior phases and will be the design being advanced. For the determination of the TSS removal of 70% for the infiltration LID at catchbasins, the *Table 3.2* of the MOECC (now MECP) publication entitled "*Stormwater Management Planning and Design Manual, March 2003*" sets the storage volume requirements for infiltration measures to achieve certain TSS removal rates.

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Table 3.2 Water Quality Storage Requirements based on Receiving Waters[1, 2]

Protection Level	SWMP Type	Storage Volume (m^3/ha) for Impervious Level			
		35%	55%	70%	85%
Enhanced 80% long-term S.S. removal	Infiltration	25	30	35	40
	Wetlands	80	105	120	140
	Hybrid Wet Pond/Wetland	110	150	175	195
	Wet Pond	140	190	225	250
Normal 70% long-term S.S. removal	Infiltration	20	20	25	30
	Wetlands	60	70	80	90
	Hybrid Wet Pond/Wetland	75	90	105	120
	Wet Pond	90	110	130	150
Basic 60% long-term S.S. removal	Infiltration	20	20	20	20
	Wetlands	60	60	60	60
	Hybrid Wet Pond/Wetland	60	70	75	80
	Wet Pond	60	75	85	95
	Dry Pond (Continuous Flow)	90	150	200	240

[1]Table 3.2 does not include every available SWMP type. Any SWMP type that can be demonstrated to the approval agencies to meet the required long-term suspended solids removal for the selected protection levels under the conditions of the site is acceptable for water quality objectives. The sizing for these SWMP types is to be determined based on performance results that have been peer-reviewed. The designer and those who review the design should be fully aware of the assumptions and sampling methodologies used in formulating performance predictions and their implications for the design.

[2]Hybrid Wet Pond/Wetland systems have 50-60% of their permanent pool volume in deeper portions of the facility (e.g., forebay, wet pond).

The required storage volume of 24.0 m^3/ha is determined for the development area pro-rated from the above table based on an overall imperviousness of ~68%. Similar to prior phases it is anticipated that the extent of the site area for Conservancy West can be managed with the proposed LID and treatment train system. For prior phases it is noted that approximately 140 lineal meters of LID per hectare of area to be treated was required. The overall land area is ~34.15ha as noted in the introduction of this report. The system design would be such that rear yards are not tributary to the LID. Therefore, if we conservatively assume the full 34.15ha being treated this would equate to 140x34.15= 4,781 m extent of LID required. Conservancy West has approximately 5,700 m of roadway available to incorporate the LID infrastructure therefore more than sufficient roadway length is available for use.

Oil-Grit Separator Units (OGS)

As shown on ***Drawing 3***, there will be multiple OGS units at various locations along the southern boundary of the property, discharging to the Jock River via naturalized

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channels. By way of an MECP Certificate of Technology Assessment and manufacturer's design report, the OGS units will demonstrate compliance with Enhanced Level of Protection requirements, with specific drainage area parameters for each area.

The manufacturer's reported efficiency of TSS removal of the OGS units is expected to be based on a 'fine distribution' particle size distribution in conformance with the following table, unless otherwise approved by the City of Ottawa, RVCA, and MECP. The particle size distribution is the generic particle size distribution accepted by the City of Toronto per the *Wet Weather Flow Management Guidelines* (City of Toronto, 2006) as a typical average stormwater particle size distribution, and is an excerpt from Table 3.3 of the *Stormwater Management Practices Planning and Design Manual* (MOECC, 1994).

Table 4: Typical Stormwater Particle Size Distribution & Settling Velocities (Source: *Stormwater Management Practices Planning and Design Manual,* MOECC, 1994)

Particle Size (microns) (NURP 1983)	% of Particle Mass	Average Settling Velocities (m/s)
< 20	0 - 20	0.00000254
20 - 40	20 - 30	0.00001300
40 - 60	30 - 40	0.00002540
60 - 130	40 - 60	0.00012700
130 - 400	60 - 80	0.00059267
400 - 4000	80 - 100	0.00550333

To allow for flexibility as detailed design advances, it is proposed that any OGS unit can be selected, given that it:

- Meets the requirements set out in the preceding sections;
- Ensures no significant negative impact on the upstream storm sewer system – to be determined via hydraulic modelling at detailed design; and
- Demonstrates suitability for meeting Enhanced water quality targets via a MECP Certificate of Technology Assessment.

The preliminary OGS units proposed in the following table have been sized to treat the stormwater runoff for the tributary areas noted in order to meet MECP Enhanced Level of Protection criteria as part of a treatment train approach prior to discharge to the Jock River via naturalized channels as shown on ***Drawing 3***. The OGS total suspended removal rates and preliminary OGS unit details have been attached for reference in ***Appendix D***.

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Table 5: OGS Unit ID and Design Characteristics

Area and Unit ID (1)(2)	Drainage Area Target (ha)	Estimated Weighted C Value	Unit Treatment Capacity (L/s)	Unit Model (1)
Area 1 – OGS W1	8.92	0.70	255	CDS Model 5640-10
Area 2 – OGS W2	10.75	0.69	212	CDS Model 5653-10
Area 3 – OGS W3	6.30	0.64	255	CDS Model 4040-8
Area 4 – OGS W4	8.18	0.67	255	CDS Model 5640-10

(1) Providing at minimum 80% TSS removal (until such time that criteria for the MECP's Consolidated Linear Infrastructure approach is in force at which time only 50% is attributed to OGS units).
(2) See ***Drawing 3*** for OGS unit locations. The "W" prefix in the numbering indicates 'West' development area.

The above preliminary OGS unit sizing will achieve required quality controls and, along with other treatment train elements, will have additional beneficial TSS mitigation.

Groundwater

Paterson Group has reviewed the anticipated long term groundwater condition for the development area. Paterson drawing PG5036-10B in ***Appendix D*** demonstrates the long term groundwater elevation across the Conservancy West development area. The elevations range from ~88.5 m in the southern areas up to ~90 m in the northern areas. The lowest storm outlet at the southern boundary is 89.35 m (OGS W1) and all storm sewers, and any infiltration-type LIDs proposed within the development area, are above the anticipated long term groundwater elevation. Profiles for the storm sewers can be seen in ***Drawing 5***.

5.4 Proposed Minor System

The subject property will be serviced by an internal gravity storm sewer system that is to generally follow the local road network and proposed servicing blocks as required. The drainage will be conveyed within the underground piped sewer system to headwall outlets located along the natural heritage corridor, providing hydration to naturalized outlet channels.

Street catchbasins will collect drainage from the streets and front yards, while rear yard catchbasins will capture drainage from backyards. Perforated catch basin leads will be provided in rear yards, except the last segment where they connect to the right-of-way which will be solid pipe, per City standards.

The preliminary rational method design of the minor system captures drainage for storm events up to and including the 2-year (local) and 5-year (collector).. The following table

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summarizes the standards that will be employed in the detailed design of the storm sewer network. The preliminary drainage area information can be found in ***Drawing 3*** and rational method design sheets are provided in ***Appendix D***.

Table 6: Storm Sewer Design Criteria

Design Parameter	Value
Minor System Design Return Period	1:2 year (PIEDTB-2016-01) for local roads, without ponding 1:5 year (PIEDTB-2016-01) for collector roads, without ponding 1:100 year (PIEDTB-2016-01) for arterial road, without ponding
Major System Design Return Period	1:100 year
Intensity Duration Frequency Curve (IDF) 2-year storm event: A=732.951 | B=6.199 | C=0.810 5-year storm event: A = 998.071 | B = 6.053 | C = 0.814	$i = \frac{A}{(t_c + B)^C}$
Minimum Time of Concentration	10 minutes
Rational Method	$Q = CiA$
Storm sewers are to be sized employing the Manning's Equation	$Q = \frac{1}{n} A R^{2/3} S^{1/2}$
Runoff coefficient for paved and roof areas	0.9
Runoff coefficient for landscaped areas	0.2
Minimum Sewer Size	250 mm diameter
Minimum Manning's 'n' for pipe flow	0.013
Minimum Depth of Cover	1.5 m from crown of sewer to grade
Minimum Full Flowing Velocity	0.8 m/s
Maximum Full Flowing Velocity	6.0 m/s
Clearance from 100-Year Hydraulic Grade Line to Building Opening	0.30 m
Design Parameter	**Value**
Max. Allowable Flow Depth on Municipal Roads	35 cm above gutter (PIEDTB-2016-01)
Extent of Major System	To be contained within the municipal ROW or adjacent to the ROW provided that the water level must not touch any part of the building envelope and must remain below the lowest building opening during the stress test event (100-year + 20%) and 15cm vertical clearance is maintained between spill elevation on the street and the ground elevation at the nearest building envelope (PIEDTB-2016-01)
Stormwater Management Model	DDSWMM (release 2.1), SWMHYMO (v. 5.02) and XPSWMM (v. 10)

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Model Parameters	Fo = 76.2 mm/hr, Fc = 13.2 mm/hr, DCAY = 4.14/hr, D.Stor.Imp. = 1.57 mm, D.Stor.Per. = 4.67 mm
Imperviousness	Based on runoff coefficient (C) where Percent Imperviousness = (C - 0.2) / 0.7 x 100%.
Design Storms	Chicago 3-hour Design Storms and 24-hour SCS Type II Design Storms. Maximum intensity averaged over 10 minutes.
Historical Events	July 1st, 1979, August 4th, 1988 and August 8th, 1996
Climate Change Street Test	20% increase in the 100-year, 3-hour Chicago storm
Extracted from City of Ottawa Sewer Design Guidelines, October 2012, and ISSU, and based on recent residential subdivisions in City of Ottawa.	

The peak design flows are calculated based on an average predicted runoff coefficient (C-value) of 0.68 for the development area generally in keeping with the MIR and will require updating, 0.40 for park areas and 0.25 for grassed areas. The runoff coefficients are based on the proposed building envelopes, which have been established based on zoning setbacks and driveway widths and other details (i.e. ROW treatments etc).

There are several trunk sewers proposed and the peak flows are described for the trunk sewers which correspond to the stormwater management design areas as summarized in the following table:

Table 7: Minor System Trunk Sewer Outlets

Area/Outlet # (from east to west)	Trunk Sewer Outlet Headwall	Drainage Area Target (ha)	Peak Flow (L/s) & (L/s/ha)
1 (HW1)	1200 mm diameter @ 0.11%	8.92	953 / 107
2 (HW2)	1200 mm diameter @ 0.11%	10.75	1014 / 94
3 (HW3)	975 mm diameter @ 0.11%	6.30	582 / 92
4 (HW4)	1050 mm diameter @ 0.11%	8.18	699 / 85
Note: See rational design sheet in ***Appendix D*** for details.			

The storm sewers tributary to the various outlets, and associated peak flows, are detailed in the rational method design sheet, enclosed in ***Appendix D***.

The conceptual servicing layout is shown on ***Drawing 2*** in ***Drawings***. As detailed design progresses, alignment and sizing of local storm sewers will be confirmed and additional servicing blocks may be required, potentially triggering minor amendments to

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the proposed lot fabric in the concept plan. The preliminary sanitary and storm trunk plan and profiles are shown on ***Drawing 5 and 6*** in ***Drawings***.

Hydraulic Grade Line Analysis

A preliminary hydraulic grade line (HGL) modelling analysis has been completed by JFSA to demonstrate that the HGL will be maintained below the ground surface. See the JFSA memo entitled *Barrhaven Conservancy West– Preliminary HGL Analysis (December 2022)* in ***Appendix D*** for details/results. The analysis has been evaluated for various scenarios for the Jock River in order to assess the appropriate HGL boundary condition:

- 5-year water level in Jock River + 100yr rain event; or
- 100-year water level in Jock River + (2/5/10 yr) rain event (deemed to be the critical event).

The HGL results in JFSA's Table 1 (***Appendix D***) demonstrate that the freeboard to the ground surface ranges from 0.50 m to 1.16 m (with an average of 0.75 m) for the critical event noted above.

An updated HGL analysis will be completed for the proposed system at the detailed design stage, based on the above noted events, including historical design storms and climate change stress test as required.

5.5 Proposed Major System

Major system conveyance, or overland flow, will be provided to accommodate flows in excess of the minor system capacity. Overland flow is accommodated by generally storing stormwater up to the 100-year design event in road sags then routing additional surface flow along the road network and service easements towards the proposed stormwater outlets, discharging to the Jock River through the natural heritage corridors, as shown on ***Drawing 1***. The grading design includes a saw-toothed-road design with 0.10% minimum grade from high point to high point in order to maximize available surface storage for management of flows up to the 100-year design event where possible.

5.6 Foundation Drainage (Sump Pumps)

Due to the grade raise restrictions and the proposed storm and sanitary drainage schemes, the road centerlines do not allow for standard basements with a gravity connection to the storm sewer system. As such, because of the constraints on the subject property, sump pumps are proposed to be installed for all residential blocks and residential lots.

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The City of Ottawa issued Technical Bulletin *ISTB-2018-04* and *2019-02* for the amendment of the *Ottawa Design Guidelines – Sewer, Second Edition,* October 2012 with respect to the screening criteria for the use of sump pump systems for foundation drainage in Greenfield developments on sites with clay soils. Similar to the development of Conservancy Phase 1 and the Conservancy East (Phase 2) site, ***Conservancy West*** has also been assessed as meeting the required criteria for the use of sump pumps.
One of the screening criterion is with respect to the hydraulic grade line (HGL) for the development wherein the system should be reviewed to demonstrate that the HGL cannot reasonably be lowered any further due to outlet restrictions. The site grading is constrained by the close proximity of the Jock River, which is the receiver of stormwater outflows, and is also constrained by grade raise restrictions for the property.

For the Barrhaven ***Conservancy West*** Lands the grade raise restriction varies between 1.9 m and 2.2 m. Paterson's permissible grade raise plan is contained in ***Appendix E*** for reference (See Section 6 for discussion). Further investigations on the property and potential surcharging or lightweight fill (LWF) underneath garages could increase the permissible grade raise and will be investigated further as part of the detailed design.

The functional grading plan for the subdivision has been prepared with the grade raise restrictions in mind with grades being kept as low as possible.

The proposed centerline of road grades, and subsequently the house grades, do not allow for standard basements with a gravity connection to the storm sewer system. As such, the subdivision will be serviced entirely by sump pumps due to site constraints imposed by grade raise restrictions, HGL elevations and the proximity to the Jock River stormwater outlet.

5.7 Low Impact Development (LID) - Infiltration

The following general Low Impact Development (LID) techniques could be considered for implementation, where possible, as part of detailed design (noting that they have to be weighed against the objectives of the City's sump pump technical bulletins):

- Rear-yard swales should be designed with minimum grades where possible, to promote infiltration;
- Rear-yard catchbasin leads should be perforated (except for the last segment connecting to the storm sewer within the ROW), to promote infiltration; and,
- Where eavestroughs are provided on residential units, they are to be directed to landscaped surfaces, to promote infiltration.
- Furthermore, the following techniques can be examined as part of detailed landscaping design of the park block; and,
- Micro-grading can be considered to promote infiltration.

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The long term groundwater anticipated is demonstrated on Paterson Drawing *PG5036-10B* in ***Appendix D*** as previously noted. The infiltration measure noted in Section 5.2 will contribute some infiltration and quality benefits as first flush stormwater is conveyed into the filtration trench. The amount of infiltration is dependent upon the surrounding soils, but the proposed design will optimize the potential on the site. JFSA has completed a high level water budget review of the site which is provided in ***Appendix D*** for reference.

To assess the water budget for the site under both pre- and post-development conditions, a SWMHYMO model was developed by JFSA. This model was run using 36 years of hourly rainfall data from the Ottawa International Airport from 1967 to 2003 (excluding missing 2001 rainfall data), the average annual runoff volumes from the subject site were computed and compared. The conceptual LIDs have been included in the model through the use of ROUTE RESERVOIR commands, which represent the storage volume and infiltration rates of each of these proposed LID features. After running each of the models for the 36 years, the annual runoff and infiltration results were extracted and the annual average water budget for each scenario calculated. Full summary tables for each year and scenario have been provided in Table A1 in ***Appendix D***.

The analysis concludes that with the proposed LID the existing annual water infiltration volume can be met and exceeded. The extents of the LID system can be refined at detailed design to optimize LID locations and to minimize the extent of infrastructure to be maintained.

5.8 Existing Watercourses

Foster Ditch

The Foster Ditch borders the eastern boundary of the ***Conservancy West*** development area. It originates south of Fallowfield Road, west of Cedarview Road and flows south until it converges with the Jock River south of McKenna Casey Drive. The ditch is approximately 3,200 m long and has been artificially straightened. This non-municipal drain is a fish bearing tributary of the Jock River with approximately 335 ha of catchment area. The surrounding land use is urban and vacant lands. Riparian vegetation is very sparse consisting of mostly grasses with a few shrubs.

As noted in the ***Jock River SWS***, to ensure protection of the aquatic habitat north of the Jock River, a development setback should be provided for all of the tributaries. Further studies will determine the development setback, which will be the greater of: 1) regulatory floodplain; 2) meander belt width; and 3) aquatic setback, whichever is greater.

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Coordination with be undertaken for determinations of the appropriate culvert sizes and configuration for development road crossings of the Foster.

O'Keefe Municipal Drain

The O'Keefe Drain is located east of and runs parallel to Highway 416. The drain extends from south of Fallowfield Road and enters the Jock River south of McKenna Casey Drive. The drain is approximately 3,100 m in length and has been artificially straightened through development areas to the north and to follow the depression between agricultural lands through the subject property. The predominant land use is agricultural. The riparian vegetation consists mainly of grasses and some shrubs with thicker forested patches as the reach approaches the Jock River.

Coordination with be undertaken with the City's Drainage group for determinations of the appropriate culvert sizes and configuration for development road crossings of the OMD. Initial sizing will be as per the Engineer's Report for the O'Keefe Drain.

5.9 Floodplain

On November 8th 2019 the RCVA gave permission to Barrhaven Conservancy Development Corporation to cut and fill on the subject property under permit RV5 44/19 pursuant to review under Section 28 of the Conservation Authorities Act, regulation 174/06. The application and approval by the RVCA was supported by a 2D HEC-RAS model prepared by JFSA. The JFSA model identified the existing and proposed 100-year water levels and permissible extent of fill placement.

The works pursuant to the above-mentioned permit were completed and accepted by the RVCA on May 31st 2020. Options to complete the fill area boundary as set by JFSA included building a structural face of fill (retaining wall) to the limits of the 100-year floodplain boundary, or, building a berm with the toe of slope at the 100-year floodplain boundary. As-builts for the fill placement were subsequently provided and approved by the RVCA, resulting in the May 31st approval noted above and the current 100-year floodplain boundary delineation. The toe of any material placed corresponds to the approved 100-year floodplain line.

5.10 Stormwater Servicing Conclusions

The stormwater runoff is designed to be captured by an internal gravity sewer system that will convey flows to multiple outlet locations equipped with end of line OGS units. A proposed treatment train arrangement of 1.0 m deep sump catchbasins to optimize catchbasin sump retention of solids, as well as select catchbasin locations with connected infiltration-type subdrains will provide the required quality control treatment to achieve the Enhanced Level of protection. Downstream of the storm outlets along the southern development boundary will be naturalized channels where treated stormwater will be conveyed through the natural heritage corridor prior to discharge to the Jock

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River. It is anticipated that quantity control is not required for the Jock River. Notwithstanding, some quantity control by means of erosion storage will be included.

A preliminary Hydraulic Grade Line (HGL) modelling analysis has been completed for the ***Conservancy West*** development area at this time and demonstrates that the HGL is maintained below the ground surface with freeboards ranging from 0.50 m to 1.16 m for critical event conditions. Further detailed HGL review will be completed for the proposed system at the detailed design stage. Due to the grade raise restrictions, and the proposed storm and sanitary drainage layout, the road centerlines do not allow for standard basements with a gravity connection to the storm sewer system. As such, because of the constraints on the subject property, sump pumps are proposed to be installed for all residential blocks and residential lots.

The ***Conservancy West*** development area will be outside of the Jock River's regulatory floodplain area.

Appropriate setbacks from existing watercourse are incorporated into the draft plan based on advancement/finalizing of studies to assess the various determining criteria.

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6.0 GRADING

A site grading arrangement has been developed to optimize earthworks and provide major system conveyance to the receiving outlets, and naturalized channels, which ultimately outlet to the existing Jock River drainage network. The proposed grading can be found in ***Drawing 1*** in ***Drawings***.

The development area is outside of the Jock River regulatory flood plain limits. The site grading will be a minimum of 0.50m above the 100-year regulatory limit event of the Jock River.

6.1 Geotechnical Conditions

Paterson completed a geotechnical investigation for the Conservancy West lands as follows:

- Geotechnical Investigation – Proposed Residential Development, Conservancy Lands West (Paterson Group, October 19, 2021);

The existing ground surface across the site is relatively level with approximate ground surface elevation varying between 91 m and 92 m. The subsurface profile generally consists of an approximate 50 mm to 360 mm thick layer of topsoil underlain by a silty clay deposit.

Due to the presence of a silty clay deposit, permissible grade raise restrictions are recommended for this site. The recommended permissible grade raise varies between 1.9 m to 2.2 m. Figure PG5036-5 '*Permissible Grade Raise Plan'* by Paterson is enclosed in ***Appendix E*** for reference. At the time of detailed design, efforts will be made to mitigate any exceedances and detailed review and signoff by a licensed Geotechnical Engineer will be required. Where grade raises exceed the permissible levels the Engineer will recommend appropriate measures to mitigate where required (i.e. light weight fill or pre-consolidation etc).

The following additional grading criteria and guidelines will be applied to detailed design, per ***City of Ottawa Guidelines***:

- Driveway slopes will have a maximum slope of 6%;
- Grading in grassed/landscaped areas to range from 2% to 3:1, with terracing required for slopes larger than 7%;
- Swales are to be 0.15m deep with 3:1 side slopes unless otherwise indicated on the drawings; and,
- Perforated pipe will be required for drainage swales if they are less than 1.5% in slope.

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The geotechnical analysis of the site, published under separate cover in support of the development applications, provides additional information about the suitability of the site for the proposed services and grading scheme. At the time of detailed design, detailed review and signoff by a licensed Geotechnical Engineer will be required.

7.0 EROSION AND SEDIMENT CONTROL

Soil erosion occurs naturally and is a function of soil type, climate and topography. The extent of erosion losses is exaggerated during construction where vegetation has been removed and the top layer of soil becomes agitated.

Prior to topsoil stripping, earthworks or underground construction, erosion and sediment controls are implemented and will be maintained throughout any construction phase.

The following specific recommendations to the Contractor will be included in contract documents.

- Limit extent of exposed soils at any given time.
- Re-vegetate exposed areas as soon as possible.
- Minimize the area to be cleared and grubbed.
- Protect exposed slopes with plastic or synthetic mulches.
- Install silt fence to prevent sediment from leaving the site and entering existing watercourses, and clean and maintain throughout construction.
- Install catchbasin inserts during construction to protect from silt entering the storm sewer system.
- Install mud mats in order to prevent mud tracking onto adjacent roadways.
- No refueling or cleaning of equipment near existing watercourses.
- No material stockpiles within 30m of existing watercourses, unless otherwise permitted by RVCA and City of Ottawa.
- Provide sediment traps and basins during dewatering.
- Plan construction at proper time to avoid flooding.
- The Contractor will, at every rainfall, complete inspections to ensure proper performance.
- Erosion and sediment controls will remain in place until the working areas have been stabilized and re-vegetated.

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8.0 UTILITIES

Utility services extending to the site may require connections to multiple existing infrastructure points: consultation with Enbridge gas, Hydro Ottawa, Rogers, and Bell is required as part of the development process to confirm the servicing plan for the subject lands.

9.0 CONCLUSION AND RECOMMENDATIONS

This AES provides details on the planned on-site municipal services for the subject property and demonstrates that adequate municipal infrastructure capacity is expected to be available for the planned development of the subject property.

- The subject lands have been reviewed by Stantec to confirm that servicing is feasible by City of Ottawa PZ SUC. Several alternatives were presented to confirm that servicing is feasible. The water supply network will be expanded through neighboring properties to meet the water demands of the proposed concept plan, via the trunk watermain network and local watermains identified. Detailed modelling will confirm phasing of the extensions of trunk watermains and sizing of the local watermain network.

- The subject property will be serviced by local sanitary sewers, an on-site trunk sanitary sewer, and the off-site SNC sanitary sewer as defined in previous reports. This AES continues to confirm that the expansion of the drainage areas from the ***2019 Novatech SNC Memo*** to include the entirety of the subject property has no negative impacts. There is residual capacity in the downstream SNC providing sufficient capacity for the peak sanitary flows for the subject property, including external commercial and community park flows. Flows projected for this development area are lower than flows previously projected in the Conservancy East development downstream.

- Stormwater service is to be provided by capturing stormwater runoff by an internal gravity sewer system that will convey flows to various outlets along the southern boundary to proposed naturalized channels. Prior to discharge from the development, any first flush stormwater will have passed through an end of line OGS unit for quality control. The OGS units will provide an Enhanced Level of Protection quality control treatment for stormwater in combination with an upstream treatment train of measures such as 1.0 m deep catchbasin sumps and LID system prior to discharge from the development. It is anticipated that quantity control will not be required for discharges to the Jock River.

- A preliminary Hydraulic Grade Line (HGL) modelling analysis has been completed at this time and demonstrates that the HGL is maintained below the

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ground surface. Another detailed HGL review will be completed for the proposed system at the detailed design level.

- A preliminary water budget analysis has been completed by JFSA at this time and indicates that pre-development infiltration levels can be met.
- Sump pumps are proposed to be installed for all units within residential blocks and lots;
- The site will be subject to grade raise restrictions ranging from 1.9 m to 2.2 m;
- The proposed servicing and grading plans are expected to meet all City, RVCA, and MECP requirements as set out in background studies and current standards.
- Prior to detailed design of the infrastructure presented in this report, this AES will require approval under the Planning Act as supporting information for the Plan of Subdivision application. Project-specific approvals are also expected to be required for the infrastructure presented in this report from the City of Ottawa, MECP, and Rideau Valley Conservation Authority, among other agencies.

Prepared by,
David Schaeffer Engineering Ltd.

Per: Kevin L. Murphy, P.Eng.

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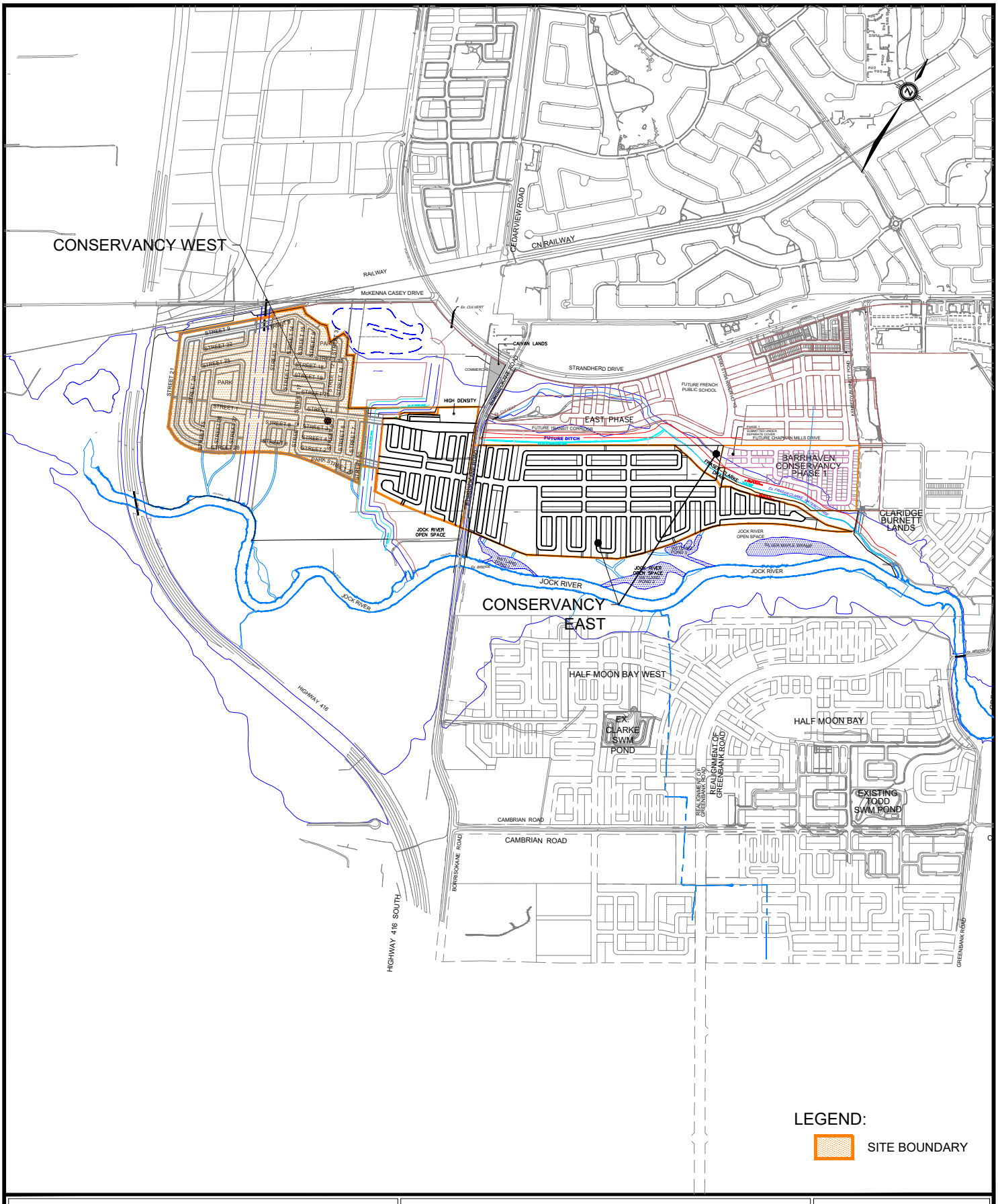
20230113_AES_Conservancy West_2nd_Subm.doc

FIGURES & DRAWINGS



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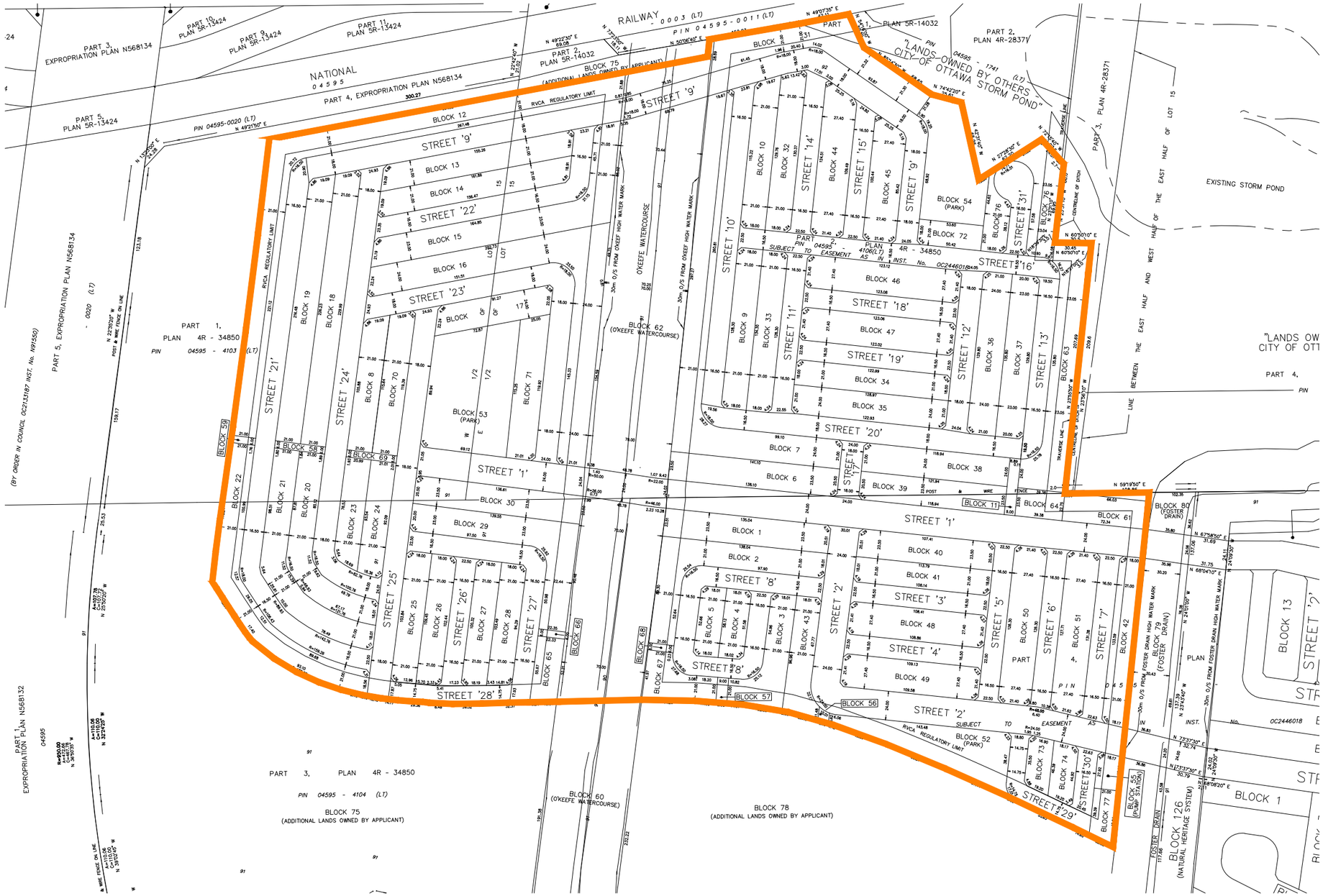
BARRHAVEN CONSERVANCY WEST

KEY PLAN

CITY OF OTTAWA

DATE:	DECEMBER 2022
SCALE:	1:20000
PROJECT No.:	20-1226
FIGURE:	1



LEGEND:

SITE BOUNDARY

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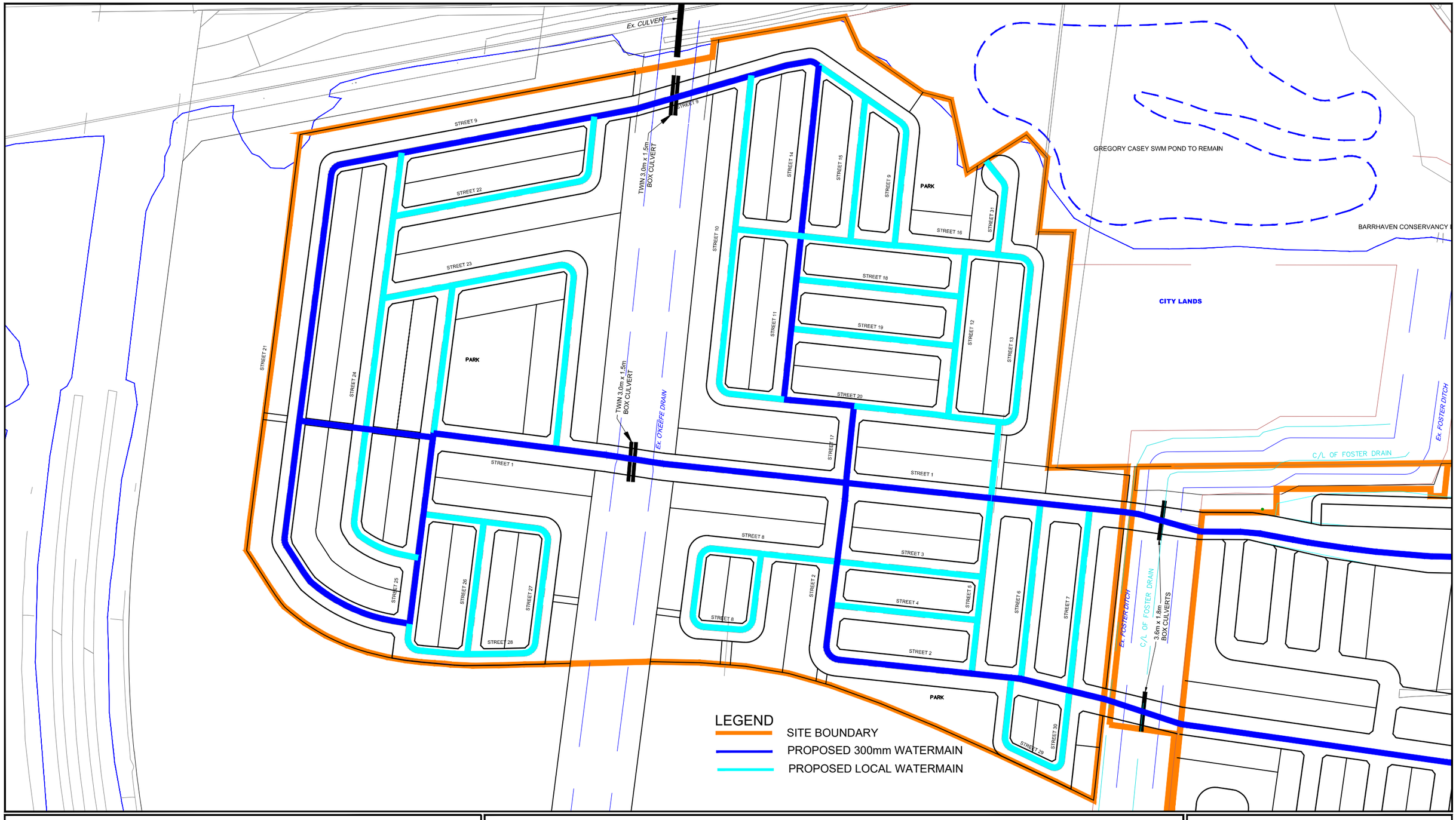
BARRHAVEN CONSERVANCY WEST
SUBDIVISION PLAN
CITY OF OTTAWA

PROJECT No.:	20-1226
SCALE:	NTS
DATE:	DECEMBER 2022
FIGURE:	2



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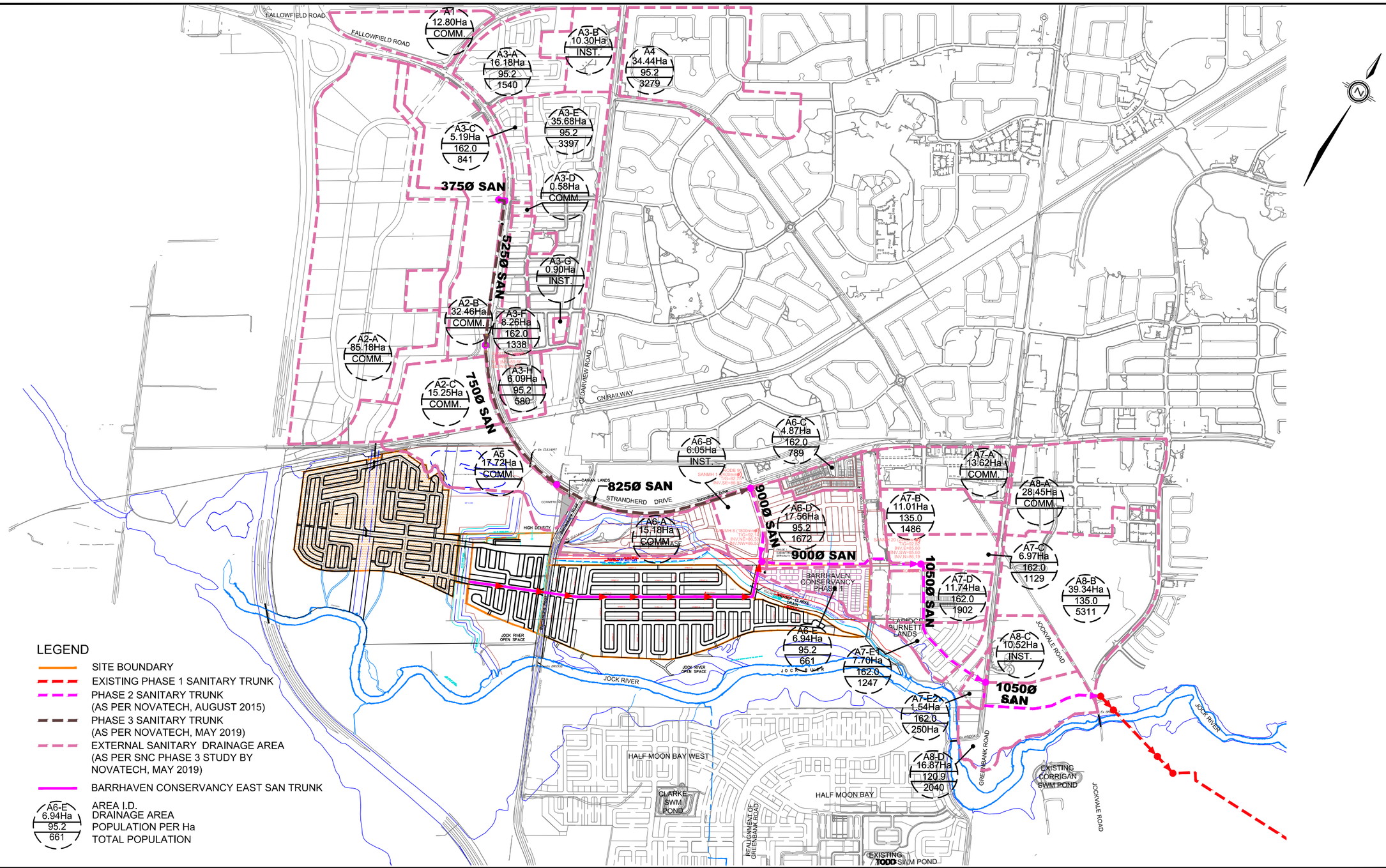
BARRHAVEN CONSERVANCY WEST
WATERMAIN SERVICING PLAN
CITY OF OTTAWA

PROJECT No.:	20-1226
SCALE:	1:3000
DATE:	DECEMBER 2022
FIGURE:	3



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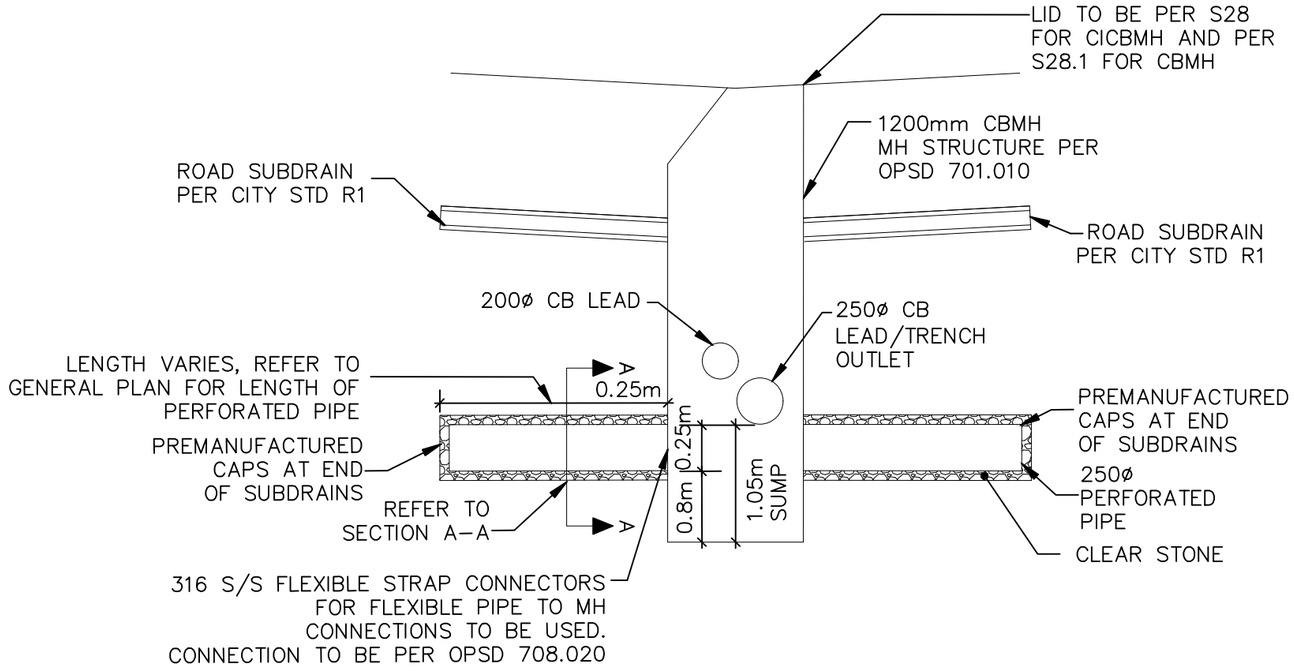
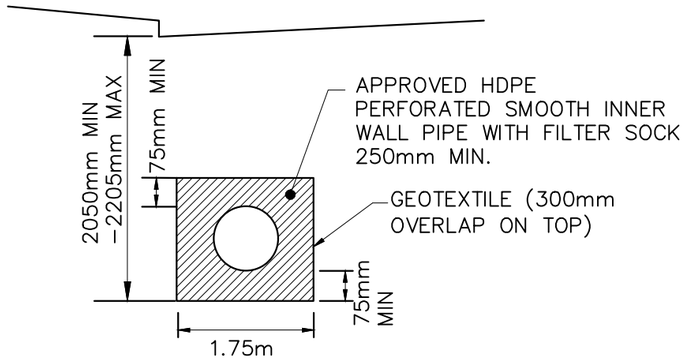
BARRHAVEN CONSERVANCY WEST
EXTERNAL SANITARY SERVICING
CITY OF OTTAWA

PROJECT No.:	20-1226
SCALE:	1:18000
DATE:	DECEMBER 2022
FIGURE:	4





SECTION A–A
SCALE: N.T.S.

INFILTRATION TRENCH DETAIL FOR CBMHs

SCALE: N.T.S.

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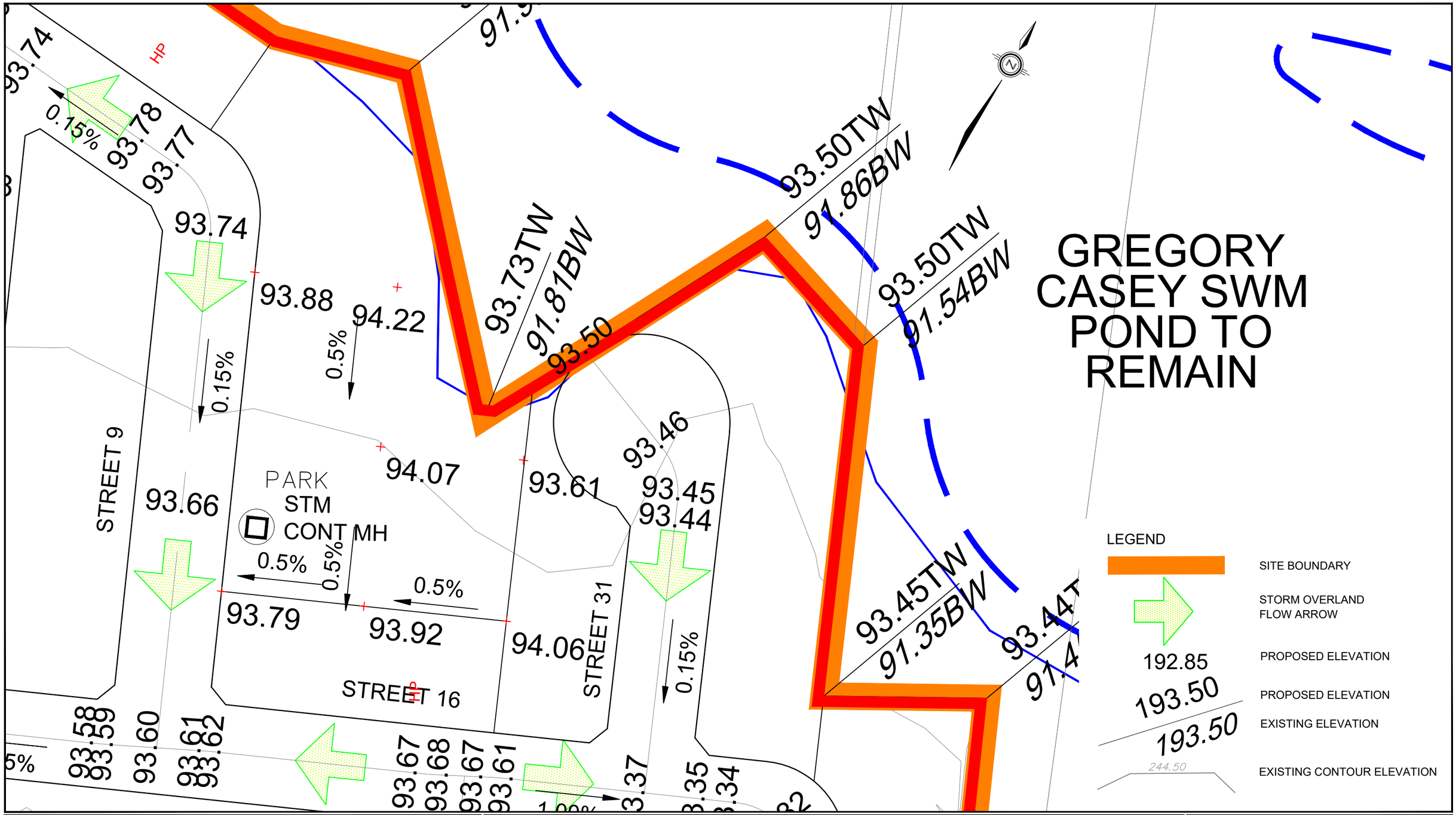
BARRHAVEN CONSERVANCY WEST
FILTRATION SYSTEM DETAILS
CITY OF OTTAWA

PROJECT No.:	20-1226
SCALE:	NTS
DATE:	DECEMBER 2022
FIGURE:	5



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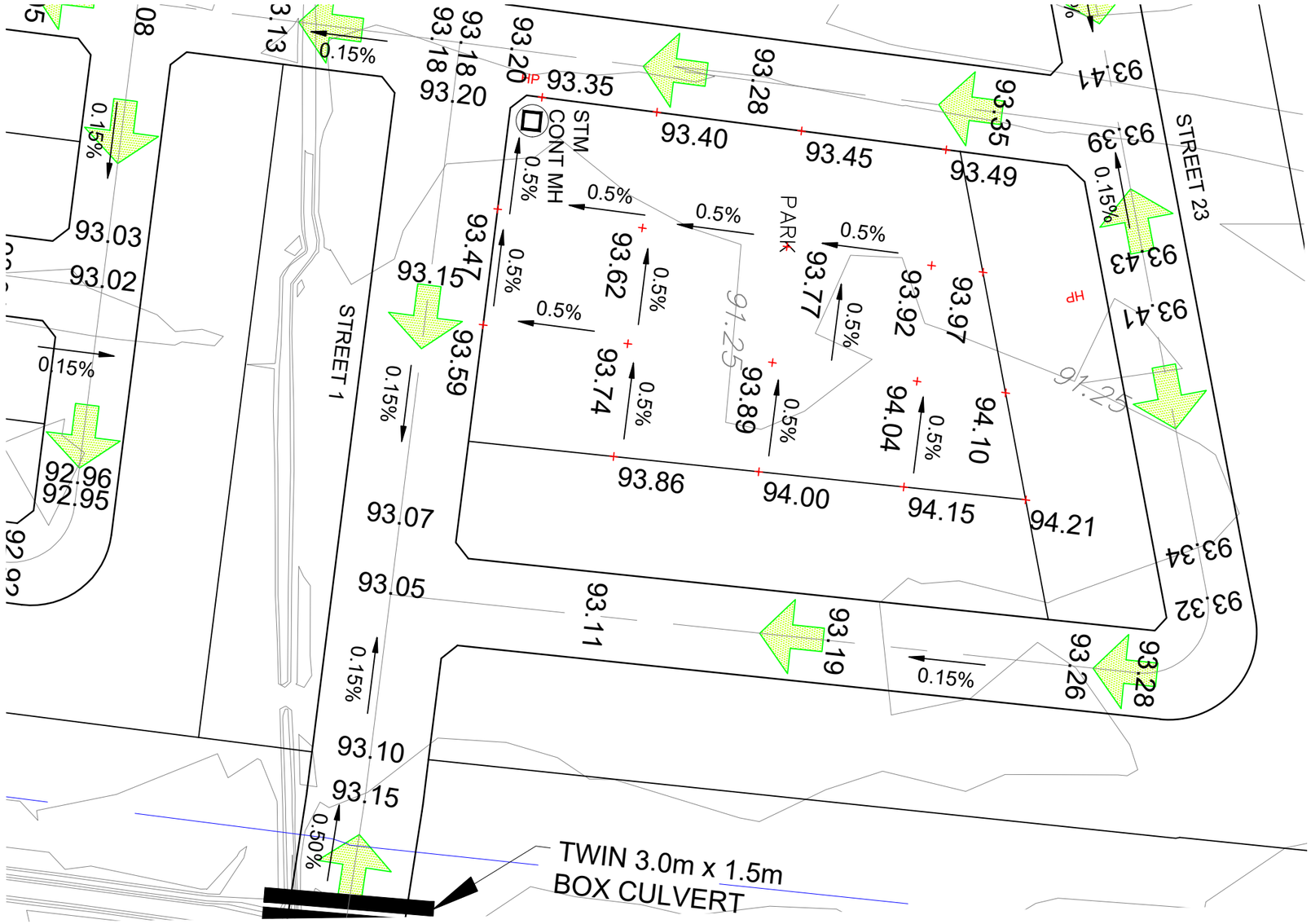
BARRHAVEN CONSERVANCY
CONCEPTUAL PARK 1 GRADING PLAN
CITY OF OTTAWA

PROJECT No.:	20-1226
SCALE:	1:1500
DATE:	DECEMBER 2022
FIGURE:	6



LEGEND

	SITE BOUNDARY
	STORM OVERLAND FLOW ARROW
192.85	PROPOSED ELEVATION
193.50	PROPOSED ELEVATION
193.50	EXISTING ELEVATION
244.50	EXISTING CONTOUR ELEVATION

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BARRHAVEN CONSERVANCY EAST
CONCEPTUAL PARK 2 GRADING PLAN
CITY OF OTTAWA

PROJECT No.:	1180
SCALE:	1:1000
DATE:	DECEMBER 2021
FIGURE:	7

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BARRHAVEN CONSERVANCY
CONCEPTUAL PARK 3 GRADING PLAN
CITY OF OTTAWA

PROJECT No.:	20-1226
SCALE:	1:1500
DATE:	DECEMBER 2022
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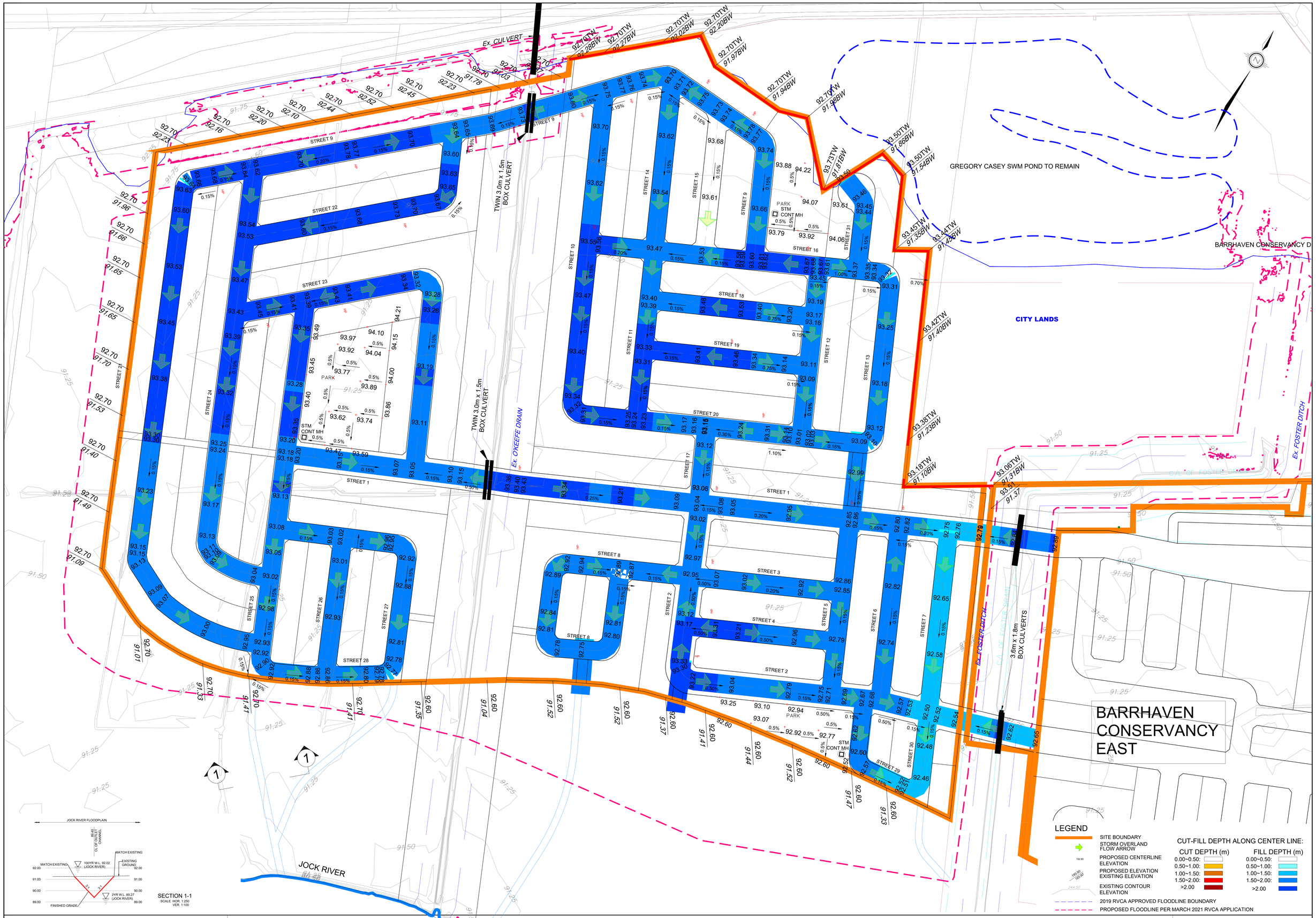

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BARRHAVEN CONSERVANCY WEST

CONCEPTUAL GRADING PLAN

CITY OF OTTAWA

PROJECT No. :	20-1226
SCALE:	1:1000
DATE:	DECEMBER 2022
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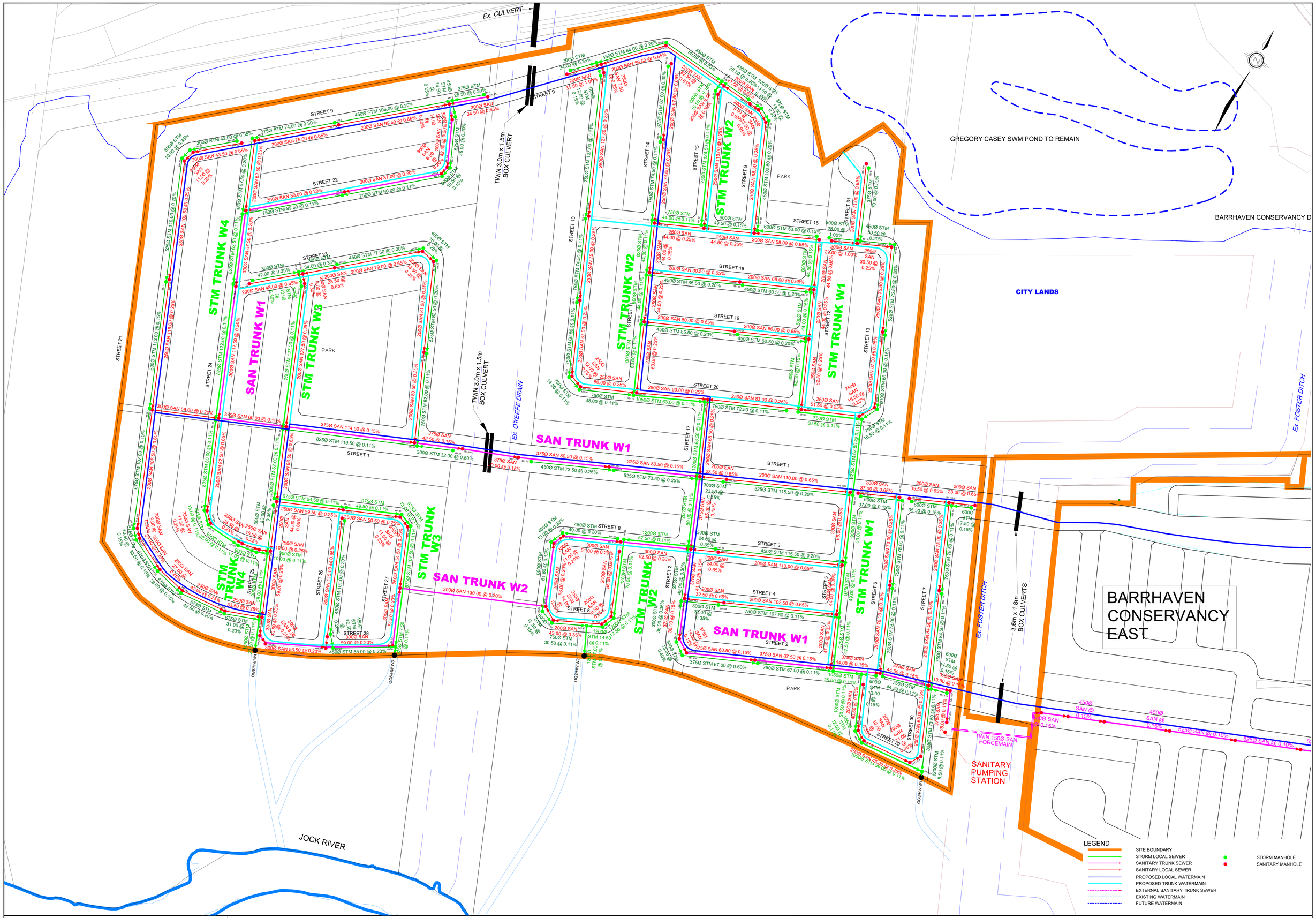

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BARRHAVEN CONSERVANCY WEST
CONCEPTUAL SERVICING PLAN
CITY OF OTTAWA

PROJECT No. :	20-1226
SCALE:	1:1000
DATE:	DECEMBER 2022
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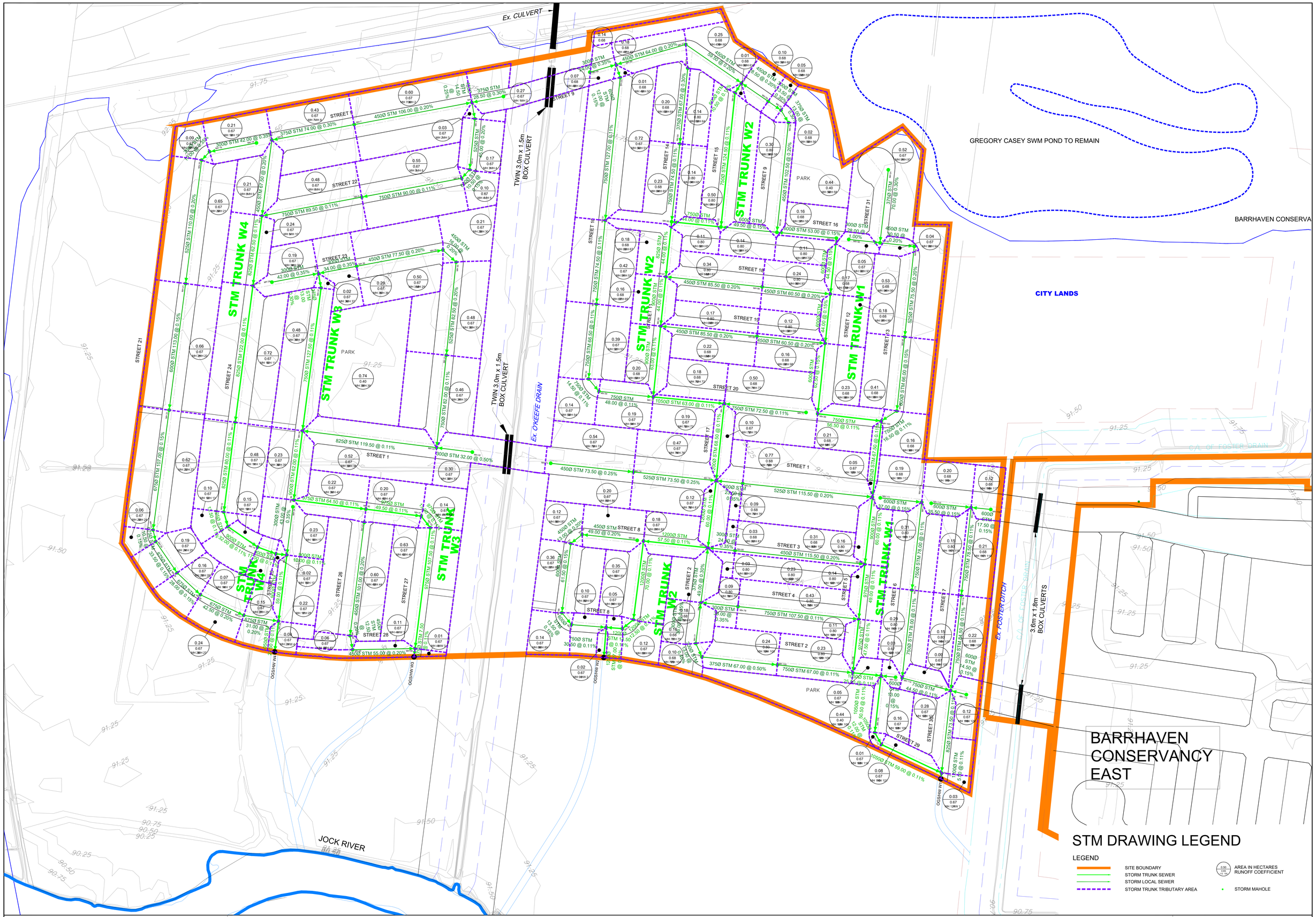

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BARRHAVEN CONSERVANCY WEST
STORM TRIBUTARY AREA
CITY OF OTTAWA

PROJECT No. :	20-1226
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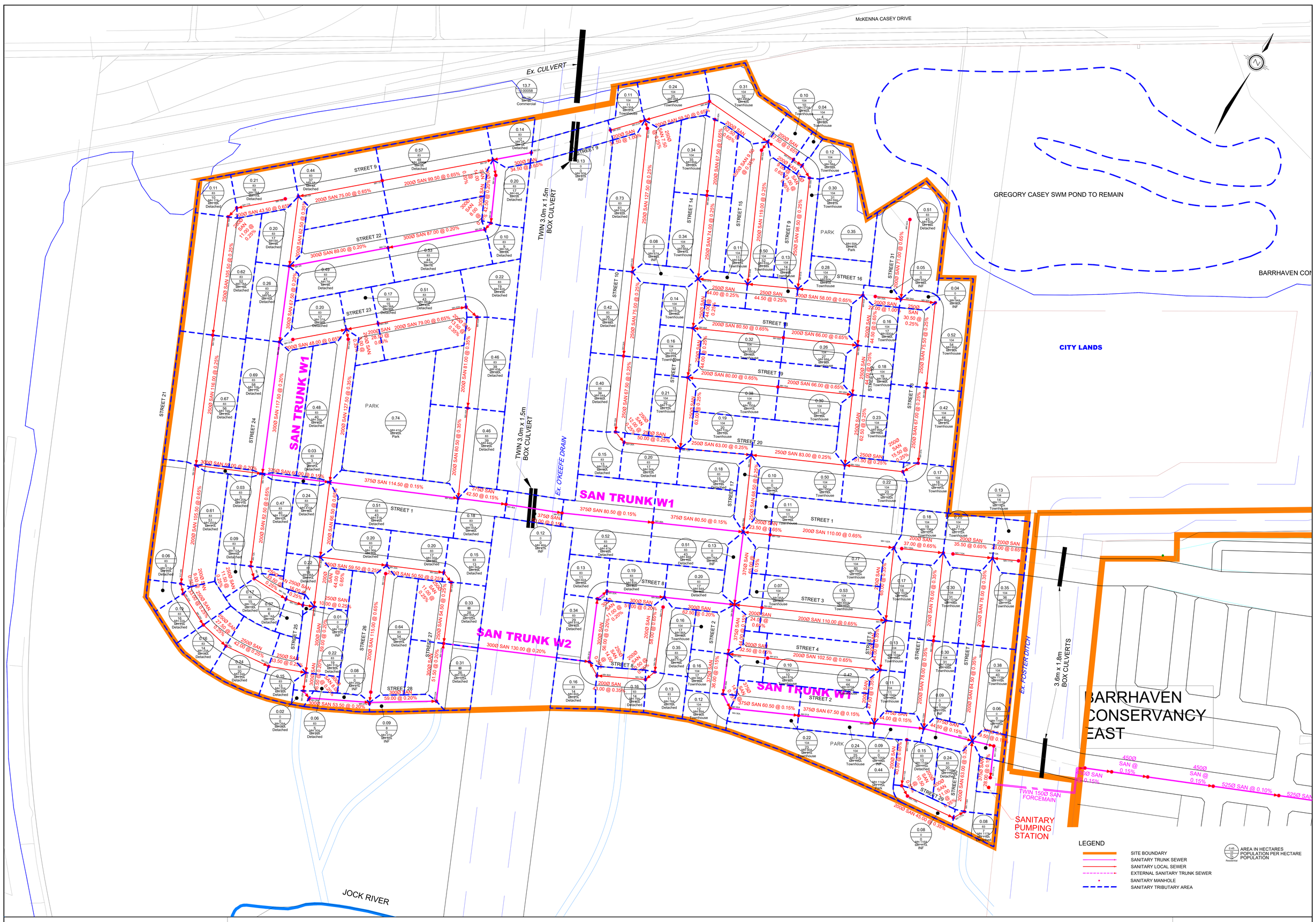

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BARRHAVEN CONSERVANCY WEST
SANITARY TRIBUTARY AREA
CITY OF OTTAWA

PROJECT No. :	20-1226
SCALE:	1:1000
DATE:	DECEMBER 2022
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STM TRUNK W1

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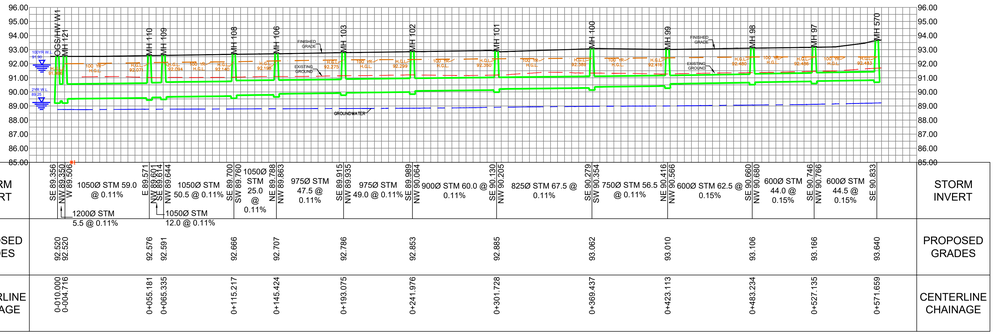

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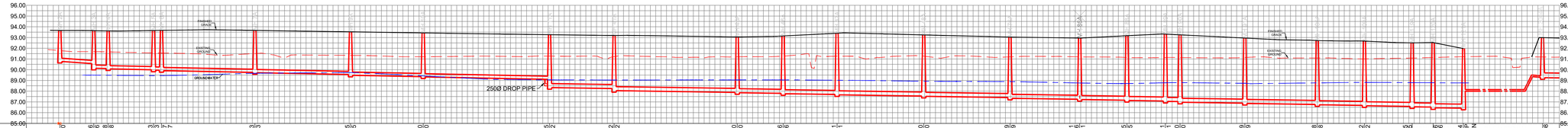
SAN TRUNK W1


FINISHED GRADE
EXISTING GROUND
GROUNDWATER
250Ø DROP PIPE

| | | |

APPENDIX A

GENERAL

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Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 8129-AB7LDF
Issue Date: June 23, 2016

City of Ottawa
100 Constellation Cresent West, 6th Floor
Ottawa, Ontario
K2G 6J8

Site Location: Jockvale Road and Strandherd Drive
City of Ottawa, Ontario

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act , R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

sanitary sewers to be constructed in the City of Ottawa, on various vacant development lands (from Station 0+003 to Station 2+517), Greenbank Road (from Station 1+846 to Station 1+947), and Jockvale Road (from Station 2+430 to Station 2+517);

all in accordance with the application form from the City of Ottawa, dated June 22, 2016, including final plans and specifications prepared by Novatech Engineers, Planners and Landscape Architects.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act

Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

Toronto, Ontario
M5G 1E5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 23rd day of June, 2016

Gregory Zimmer, P.Eng.
Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

AF/
c: District Manager, MOECC Ottawa
Water Supervisor, MOECC, Ottawa
M. Rick O'Connor, City Clerk, City of Ottawa
Luc Marineau, City of Ottawa
Jonathan Knoyle, City of Ottawa
Bob Dowdall, Novatech Engineers, Planners and Landscape Architects
Edson Donnelly, Novatech Engineers, Planners and Landscape Architects

APPENDIX B

WATER SUPPLY

BARRHAVEN CONSERVANCY WEST: WATER DISTRIBUTION SYSTEM ANALYSIS

Final Report

January 13, 2023

Prepared for:
David Schaeffer Engineering Ltd.

Prepared by:
Stantec Consulting Ltd.

Project Number:
163401817

Revision	Description	Author	Date	Quality Check	Date	Independent Review	Date
0	Draft	AMG	20221219	AP	20221219	AP	20221219
1	Final	AMG	20230111	AP	20230113	AP	20230113

The conclusions in the Report titled **Barrhaven Conservancy West: Water Distribution System Analysis** are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from David Schaeffer Engineering Ltd. (the "Client") and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client. While the Report may be provided to applicable authorities having jurisdiction and others for whom the Client is responsible, Stantec does not warrant the services to any third party. The report may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion.

Prepared by: _____

Signature

Alexandre Mineault-Guitard, M.Sc.A., ing., P.Eng.

Printed Name

Reviewed by: _____

Signature

Ana Paerez, P.Eng.

Printed Name

Approved by: _____

Signature

Ana Paerez, P.Eng.

Printed Name

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1 Introduction

To support David Schaeffer Engineering Ltd (DSEL) with their conceptual design submission for the Barrhaven Conservancy West development lands, Stantec Consulting Ltd. (Stantec) was requested to provide engineering services to complete a water distribution system analysis for this proposed development located within the City of Ottawa's (City) South Urban Community (SUC). The purpose of the analysis is to confirm associated watermain sizing and redundancy needs.

For this assignment, Stantec's scope of work included the following tasks:

1. Reviewing background information and establishing updated water demands for the Conservancy West development area based on the most current draft plan;
2. Preparing and submitting a boundary condition request to the City;
3. Updating the stand-alone hydraulic model, developed for the Conservancy East lands in a previous assignment (Stantec Consulting Ltd., 2022), to include the distribution system within the Conservancy West lands using boundary conditions provided by the City;
4. Assessing Fire Underwriters Survey (FUS) fire flow requirements;
5. Setting up and running model simulations for average day (AVDY), peak hour (PKHR), and maximum day (MXDY) plus fire flow demands to identify watermain sizing and redundancy needs required for the water distribution system within the development lands to meet design criteria; and,
6. Documenting the approach used, findings and recommendations from the analysis.

1.1 Study Area

The study area, referred to as the Barrhaven Conservancy development lands, is located in the City's southwestern suburban neighbourhood of Barrhaven. The lands are situated between Strandherd Dr to the north, the Jock River to the south, Fraser-Clark Drain to the east, and bisected by Borrisokane Rd through the western portion. The Conservancy West development lands will proceed once all phases within the East development lands have been built out. The distribution network within the Conservancy East lands was analyzed under a previous assignment (Stantec Consulting Ltd., 2022).

Based on the latest draft plan provided by DSEL (dated December 1, 2022), the proposed Conservancy West development will comprise a total of 462 single family home (SFH) units and 499 townhouse (MLT) units (consisting of a combination of back-to-back and standard townhouse units) for a total estimated population of 2,918 persons. More details on phasing and population estimates are provided in **Section 1.2**.

Based on a previously completed serviceability study for these lands (Stantec Consulting Ltd., 2021, Stantec Consulting Ltd., 2022), this residential community, which is currently situated adjacent to Pressure Zone 3SW (previously known as Zone BARR), is ultimately planned to be serviced by the future Zone SUC. In 2015, the City embarked on a large initiative to reconfigure the pressure zones servicing Barrhaven and the southern reaches of Ottawa (i.e., SUC).

The latest information provided by the City indicates that the pressure zone reconfiguration is planned to be completed by mid 2025.The purpose of the zone reconfiguration is to improve reliability and efficiencies, and to provide increased pumping capacity for future growth. As such, these development lands are to be serviced by two existing connections to the existing distribution network, both of which are currently part of Zone 3SW and will ultimately be part of Zone SUC, as well as a future connection located south of the Jock River. The connections include the following locations as shown in **Figure 1-1**:

1. The existing 305 mm stub extending from Chapman Mills Dr (east of Kennedy-Burnett Pond);
2. The T-junction on the existing 203 mm watermain at Danson Gardens Grv and Darjeeling Ave; and
3. A future 305 mm stub at the intersection of Flagstaff Drive and Borrisokane Road, which requires crossing the Jock River.

Previous studies analyzed the serviceability of the Barrhaven Conservancy Lands via the two (2) existing connections only, as well as with all three (3) connections. This study will only consider the three (3) connections, as it is the City's preferred option.

As previously mentioned, the development area will ultimately be serviced by the pressure Zone SUC once the reconfiguration is complete (planned by mid 2025). As such, the analysis and proposed watermain sizing and layout documented in this report only considers the Zone SUC servicing conditions.

1.2 Phasing Of Barrhaven Conservancy

For the purpose of this assessment, development within the Barrhaven Conservancy lands, as shown in **Figure 1-2**, is assumed to occur in the following phasing order:

1. Conservancy East lands – Comprising 782 SFH units, 606 MTL units, and three (3) parks for a total estimated population of 4,295 persons.
2. Conservancy West lands – Comprising 462 SFH units, 499 MTL units, and three (3) parks for a total estimated population of 2,918 persons.

Several subphases are planned for both the East and West lands, however only the ultimate buildout conditions of both phases (i.e., the buildout conditions of the Barrhaven Conservancy lands) will be analyzed herein. **Figure 1-2** also shows the proposed building types throughout the Conservancy lands.

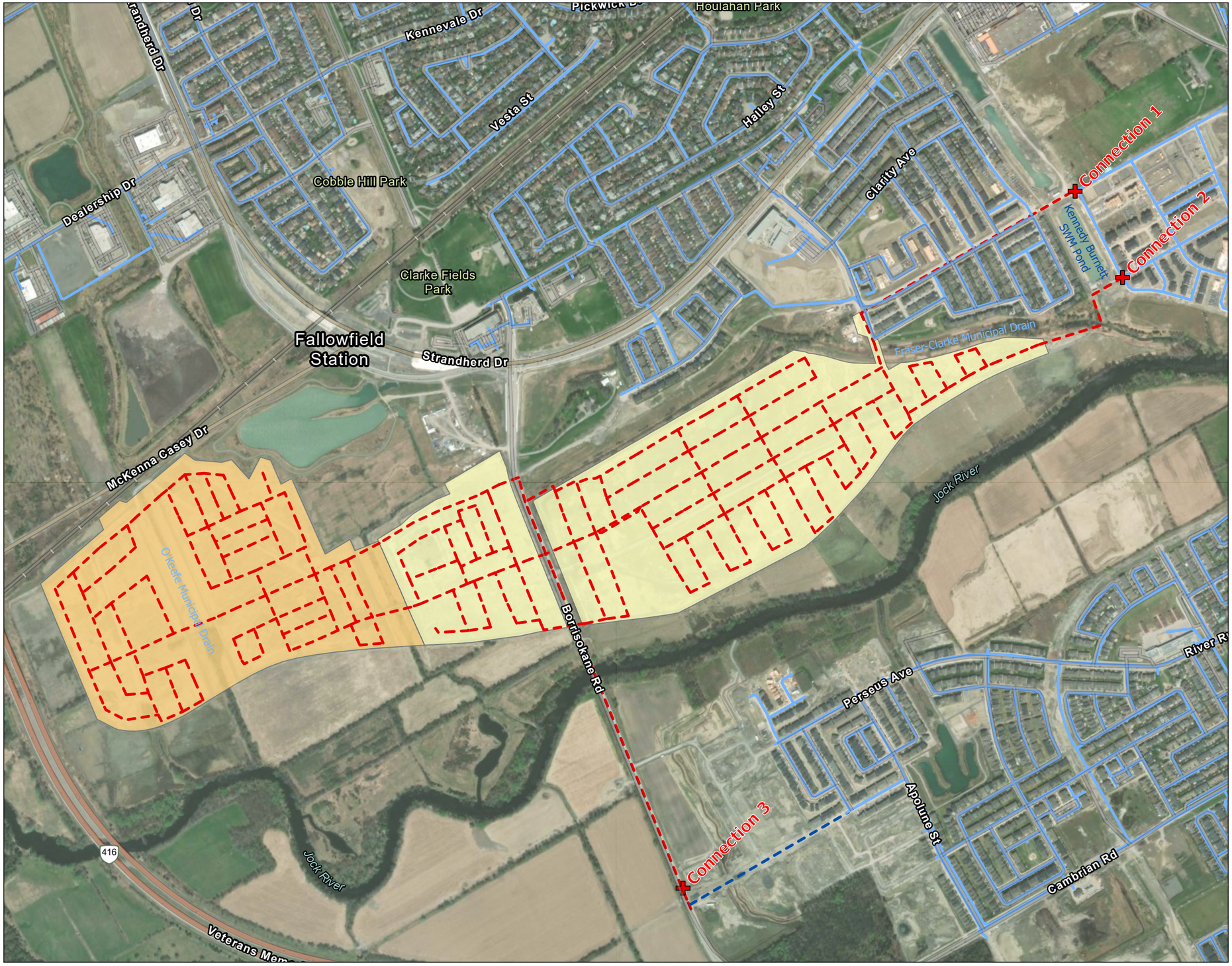


Figure No.
1-1

Title
Connections to Existing Water Distribution Network

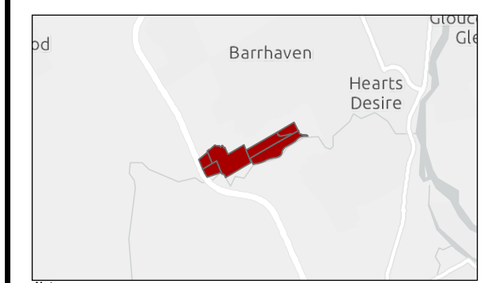
Client/Project
David Schaeffer Engineering Ltd
Barrhaven Conservancy West: Water Distribution System Analysis

Project Location
Ottawa, Ontario, Canada

N

0 150 300 Meters
(At original document size of 11x17)
1:10,000

Legend
- Barrhaven Conservancy West
- Barrhaven Conservancy East
- Existing Distribution Watermain
- Connection Location
- Future Distribution Watermain
- Future Watermain to Service Barrhaven Conservancy Lands



Notes
1. Coordinate System: NAD 1983 CSRS MTM 9
2. Background: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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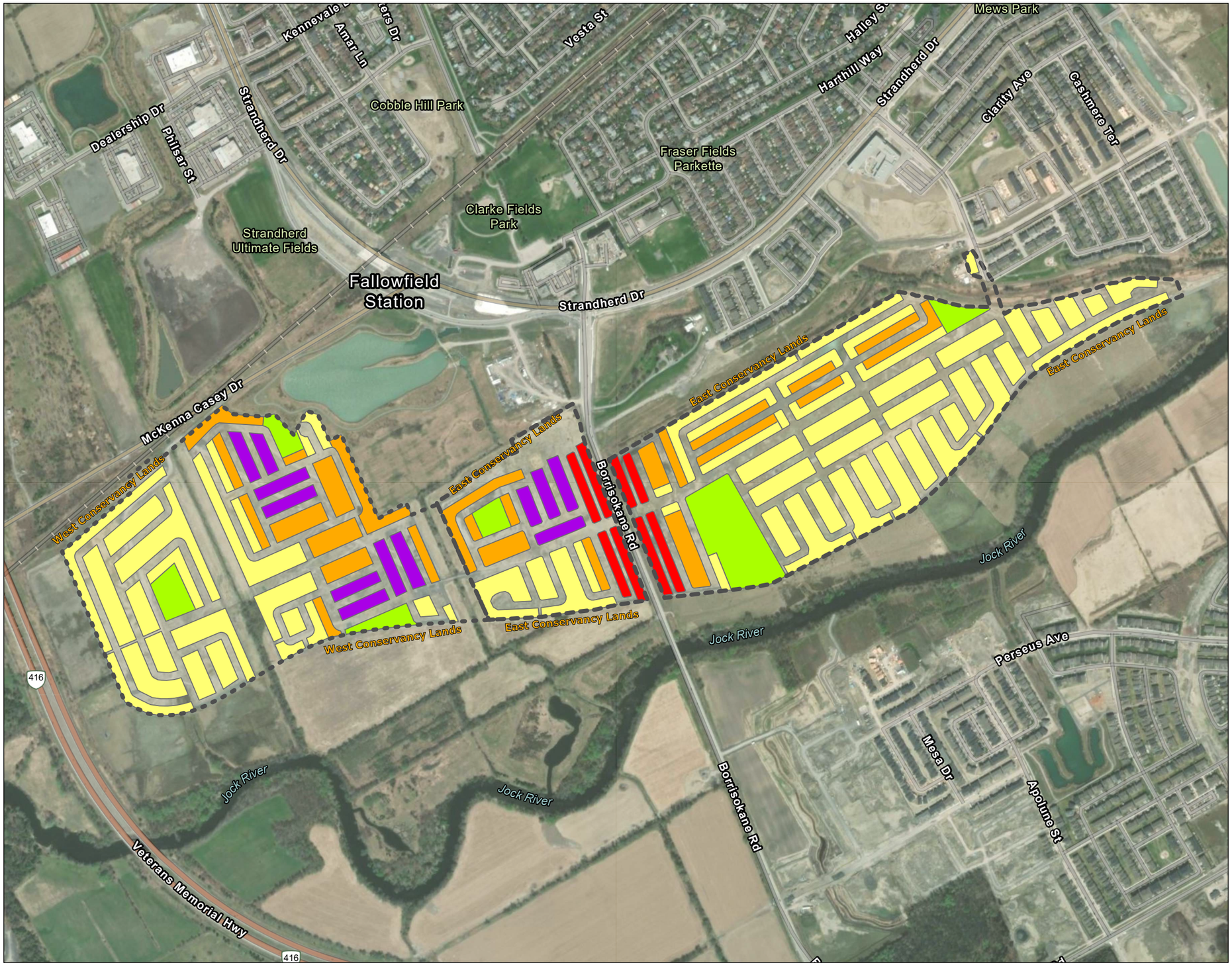


Figure No.
1-2

Title
Phasing Plan of Barrhaven Conservancy Lands

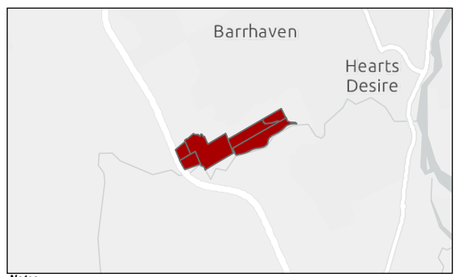
Client/Project
David Schaeffer Engineering Ltd
Barrhaven Conservancy West: Water Distribution System Analysis

Project Location
Ottawa, Ontario, Canada

N

0 150 300 Meters
(At original document size of 11x17)
1:9,000

Legend
- Development Phase Boundary
- Single Family Home (SFH)
- Standard Townhouse (STND TH)
- Rear-Lane Townhouse (RLTH)
- Back-to-Back Townhouse (B2B)
- Park



Notes
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2 Hydraulic Assessment

The City of Ottawa Water Design Guidelines (City of Ottawa, 2010) and criteria outlined in the 2013 Water Master Plan (WMP) were used to establish water demands, level of service and pressure objectives during normal and emergency conditions. As per the City's design guidelines and Technical Bulletin ISTB-2021-03, since this is a new development involving the design of new watermains, the design shall consider a required fire flow established using the calculation method published by the Fire Underwriters Survey (FUS).

2.1 Serviceability

2.1.1 SYSTEM PRESSURES

As per the City's Water Design Guidelines, the desired range of pressure under average day (AVDY), maximum day (MXDY) and peak hour (PKHR) demands is 345 to 552 kPa (50 to 80 psi) and no less than 276 kPa (40 psi) at ground elevation (i.e., at street level). The maximum pressure at any point in the water distribution system should not exceed 552 kPa (80 psi). Pressure reducing measures are required to service areas where pressures greater than 552 kPa (80 psi) are anticipated.

Under emergency fire conditions, the system must be able to supply appropriate fire flow while maintaining a residual pressure of 138 kPa (20 psi).

Figure 2-1 shows the elevations of each model junction within the Conservancy West lands. Proposed grades range from 92.5 m to 93.8 m, based on the grading plan provided by DSEL. Elevations in the Conservancy East lands range from 92.4 m to 93.5 m.

2.1.2 FIRE FLOWS

The City requires a fire flow assessment to be completed to demonstrate that local watermains can provide the objective fire flows. However, information regarding unit sizes and unit separation is not available at this time and as such, FUS calculations have not been completed.

As a result, the required fire flow for the governing unit design established for the Conservancy East lands (Stantec Consulting Ltd., 2022) of 13,000 L/min will be used for this analysis to ensure that the local watermains can provide this minimum fire flow at a residual pressure of 20 psi.

It is recommended that FUS calculations for the Conservancy West lands be reviewed at the detailed design stage to ensure that fire flow requirements are met across the site.

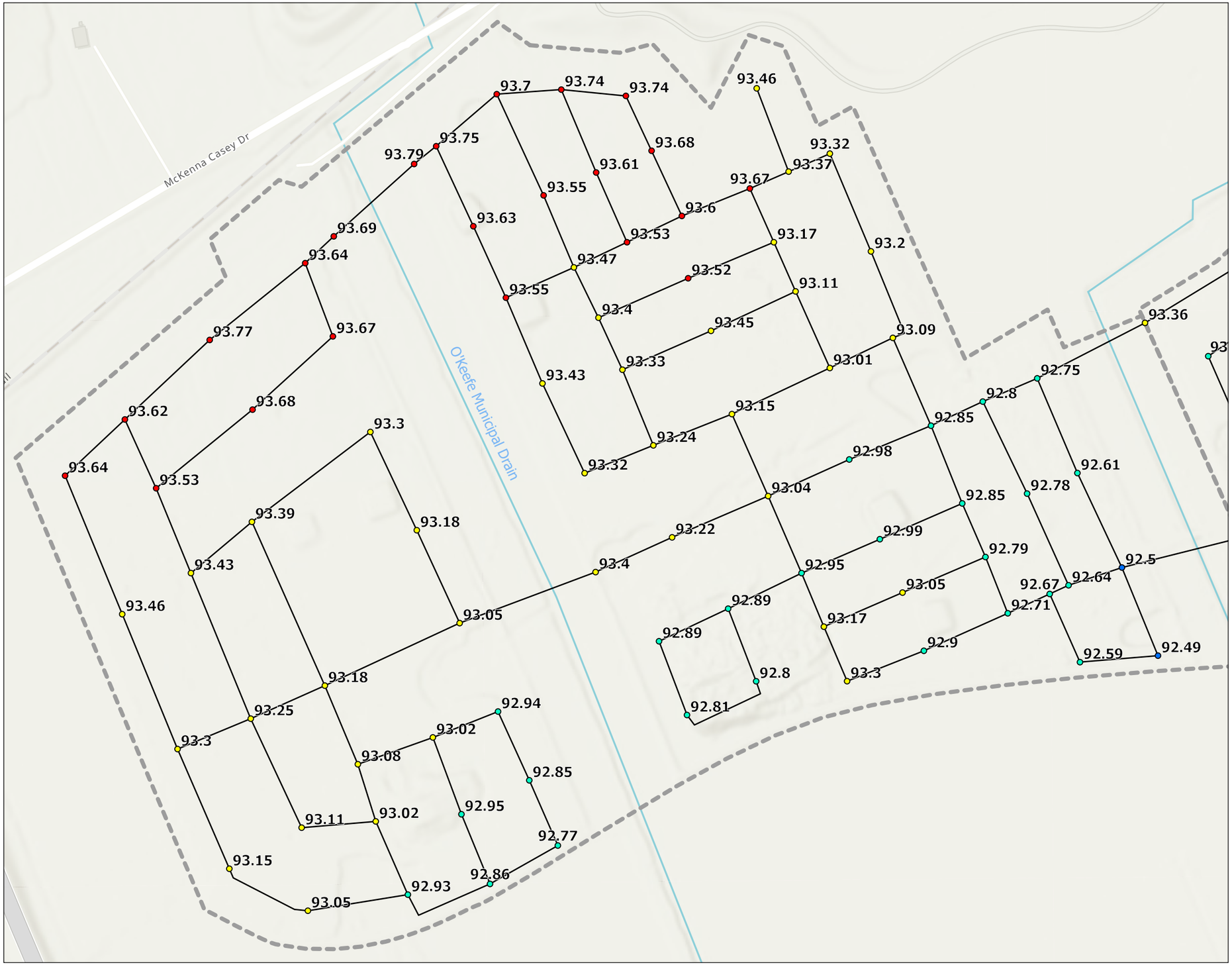


Figure No.
2-1

Title
Junction Elevation

Client/Project
David Schaeffer Engineering Ltd
Barrhaven Conservancy West: Water Distribution System Analysis

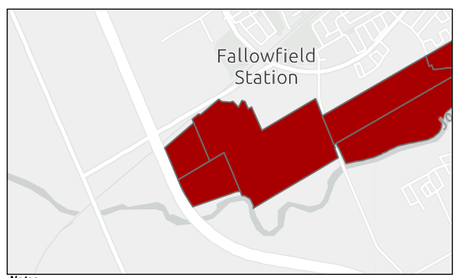
Project Location
Ottawa, Ontario, Canada

N

0 50 100 Meters
(At original document size of 11x17)
1:3,000

Legend
- Development Phase Boundary
- Future Watermain to Service Barrhaven Conservancy Lands

Ground Elevation (m)
- <92.5
- 92.5 - 93.0
- 93.0 - 93.5
- 93.5 - 94



Notes
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2.2 Growth Projections

The estimated residential population for Barrhaven Conservancy lands was estimated based on projected household sizes as per population densities (or persons per unit, PPU) specified in the City's Water Design Guidelines.

Table 2-1 shows the estimated number of units per phase of these development lands and the projected populations based on the distribution of residential types. The total number of units across the entire Barrhaven Conservancy lands is estimated to be 2,349 with a residential population of 7,213 persons.

Table 2-1: Estimated Unit Counts and Populations for Barrhaven Conservancy Lands

Phase	Unit Types	Units	PPU	Population
East	Singles	782	3.4	2,659
	Towns	606	2.7	1,636
	East Phase Sub-total	*1,388*	-	*4,295*
West	Singles	462	3.4	1,571
	Towns	499	2.7	1,347
	West Phase Sub-total	*961*	-	*2,918*
	Total	***2,349***		***7,213***

2.3 Demand Projections

As part of the 2022 Study (Stantec Consulting Ltd.) that analyzed the serviceability of the Conservancy East lands, the City requested that the criteria outlined in the City's Water Design Guidelines and Technical Bulletin ISTB-2021-03 were followed to establish water demands. This was considered a conservative approach, as the criteria in the City's Water Design Guidelines are more restrictive in comparison to the ones outlined in the 2013 City's Water Master Plan (WMP).

As such, the demand rates and peaking factors from the Water Design Guidelines and Technical Bulletin ISTB-2021-03 were applied to the population projections presented in **Table 2-2** based on land-use. For residential land-use, SFH and MLT units were assigned an average day (AVDY) consumption rate of 280 L/cap/d. To determine maximum day (MXDY) demands, the AVDY demands were multiplied by a residential peaking factor of 2.5. Peak hour (PKHR) demands were established by multiplying MXDY demands by a residential peaking factor of 2.2. Estimated AVDY, MXDY and PKHR demand projections are summarized in **Table 2-2**.

Table 2-2: Estimated Demand Projections for Barrhaven Conservancy Lands

Phase	Units	Population	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
East	1,388	4,295	13.92	34.80	76.55
West	961	2,918	9.46	23.64	52.01
Total	***2,349***	***7,213***	***23.38***	***58.44***	***128.57***

2.4 Model Development

Innovyze's InfoWater Pro (Version 3.5, Update #1) was used as a hydraulic modelling platform for the water distribution system analysis of the proposed West Conservancy development lands, and includes the previously assessed East Conservancy lands (Stantec Consulting Ltd., 2022). The model was developed to reflect the most current draft plan for the West Conservancy lands, including the proposed watermain layout (based on proposed road alignment) and water demands.

Watermains added to the model were assigned Hazen-Williams coefficients ("C-Factors") in accordance with the City's Water Design Guidelines. These factors are listed in **Table 2-3.**

Table 2-3: Hazen-Williams Coefficients by Watermain Size

Watermain Diameter (mm)	Coefficient
152	100
203 - 305	110
350 - 600	120
> 600	130

2.4.1 BOUNDARY CONDITIONS

The proposed development has three (3) connection points to the existing water distribution system. The boundary conditions provided by the City include hydraulic gradeline (HGL) values for Zone SUC servicing conditions. Values are provided in **Appendix A** and summarized in **Table 2-4**, and have been simulated in the hydraulic model using fixed head reservoirs to which HGLs have been applied for the respective demand scenarios.

Note that minor changes were made to the conceptual plans following the request for boundary conditions. Those changes include a net increase of 34 units (37 additional SFH units, 3 less MTL units), which have a minimal impact on residential water demands (+0.39 L/s for AVDY, and +2.10 L/s for PKHR). As such, boundary conditions listed in **Table 2-4** were used for this study, and updated boundary conditions will be requested from the City for a subsequent submission.

Table 2-4: HGL Boundary Conditions

HGL (m) Zone SUC Servicing Conditions			
Demand Scenario	**Three Connections**		
	Connection 1 (1)	**Connection 2** (2)	**Connection 3** (3)
AVDY	146.7	146.7	146.6
PKHR	141.4	141.3	141.0
AVDY +FF (4)	139.7	138.1	139.8
MXDY+FF (4)	137.9	136.2	137.9

Notes

(1) Ground elevation @ Connection 1 (Chapman Mills Dr) = 93.1 m.
(2) Ground elevation @ Connection 2 (Danson Gardens Grv / Darjeeling Ave) = 91.8 m.
(3) Ground elevation @ Connection 3 (Flagstaff Dr) = 92.3 m.
(4) FF of 13,000 L/min or 216.67 L/s.

2.4.2 PROPOSED WATERMAIN SIZING & LAYOUT

The layout and sizing of the watermains within the proposed development (both East and West) is shown in **Figure 2-2**. Within the Conservancy West lands, the network is proposed to consist of 152 mm, 203 mm, 254 mm, and 305 mm, with the 305 mm watermains acting as the hydraulic backbone throughout the development lands. The 305 mm backbone watermains connect at two (2) locations to the watermains within Conservancy East lands and extend west crossing the O'Keefe municipal drain at two (2) locations. Note that **Figure 2-2** is a schematic representation of the hydraulic model layout. The specific configuration of dead-end watermains, among other infrastructure, are not presented in the figure.

The proposed watermain layout contains two (2) dead-end watermains in the Conservancy West lands (noted on **Figure 2-2)**. This includes a dead-end watermain along the cul-de-sac, as well as another single looped watermain east of the O'Keefe municipal drain.

As per the City of Ottawa Water Distribution Design Guidelines, dead ends should be avoided as much as possible to limit potential water quality issues. Where dead-end watermains cannot be avoided, the guidelines specify a maximum watermain size of 150 mm, unless a larger size is needed for supply reasons. Dead-end #1 is proposed to be serviced by a 203 mm diameter watermain, whereas dead-end #2 is proposed to be serviced by a combination of 203 and 254 mm diameter watermains. These pipe sizes are recommended to meet demands under fire flow conditions. The configuration of the dead-end watermains will be as per de City's standard details and will be reviewed at the detailed design stage.

Furthermore, the maximum number of units along a dead-end watermain should not exceed 49 to avoid the creation of a vulnerable service area. Based on the latest concept plans, each dead-end watermain within the Conservancy West lands services fewer than 49 single-family units.

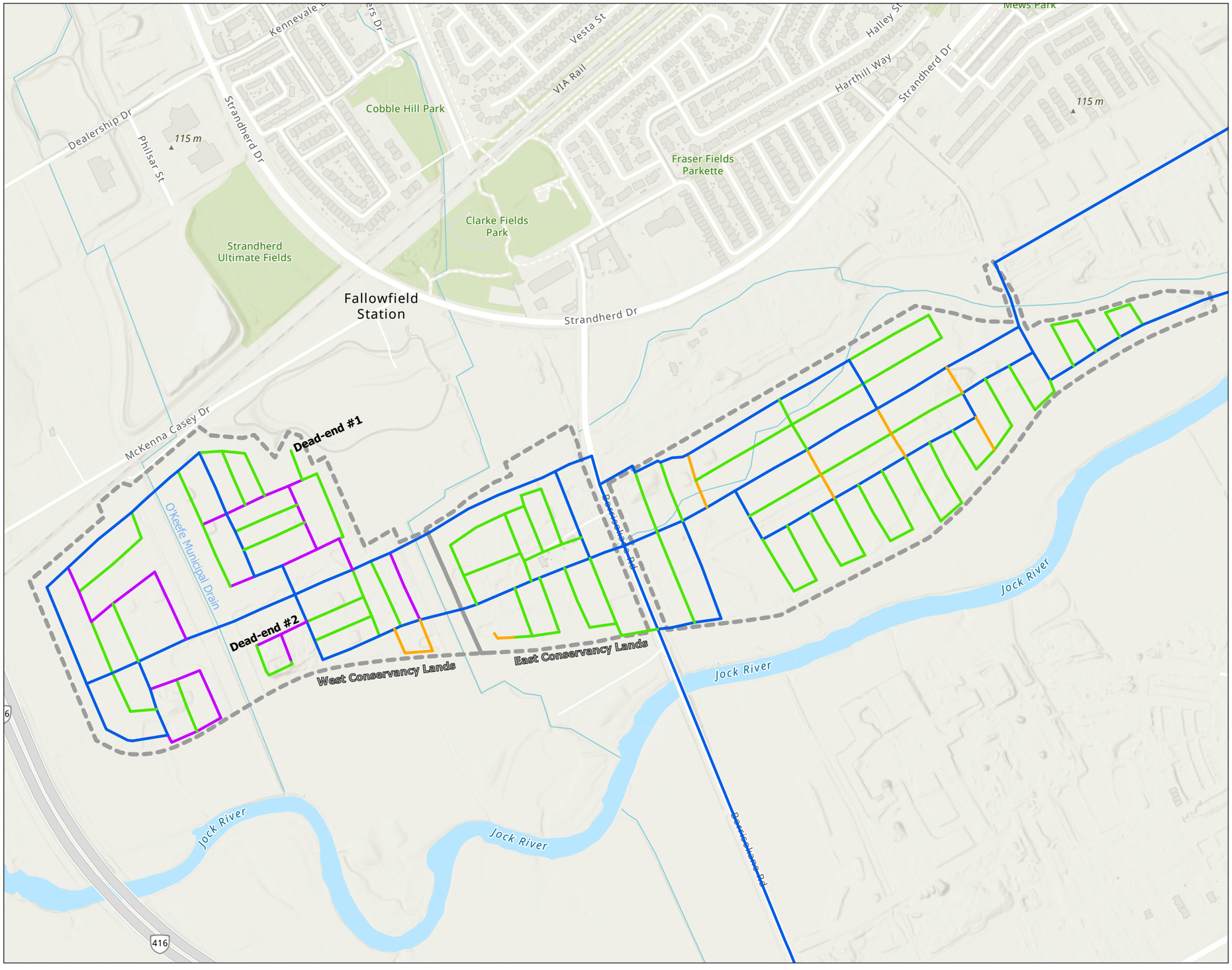


Figure No.
2-2

Title
Proposed Watermain Sizing & Layout

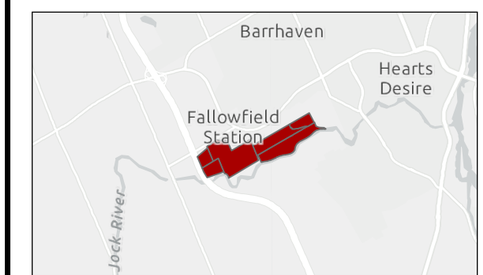
Client/Project
David Schaeffer Engineering Ltd
Barrhaven Conservancy West: Water Distribution System Analysis

Project Location
Ottawa, Ontario, Canada

N

0 150 300 Meters
(At original document size of 11x17)
1:8,500

Legend
Development Phase Boundary
Proposed Watermain Diameter (mm)
152
203
254
305



Notes
1. Coordinate System: NAD 1983 CSRS MTM 9
2. Background: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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3 Hydraulic Modelling Results

Hydraulic modelling was completed for ultimate buildout conditions of the development lands, under SUC servicing conditions, to verify how the network would respond. The following subsections present the modelling results under AVDY, PKHR, and under emergency MXDY fire flow conditions. Furthermore, a reliability analysis was performed to assess the network's performance under emergency AVDY fire flow conditions in the event of a watermain break at key points within the proposed network. **Figure B-1** (**Appendix B**) provides the model system map, while detailed modelling results for all scenarios are provided in **Appendix C.**

3.1 Average Day & Peak Hour Demands

Under AVDY demands, maximum modelled pressures under buildout conditions are 78 psi. These maximum pressures are less than the City's maximum pressure objective of 80 psi.

Under PKHR demands, minimum modelled pressures under buildout conditions are 64 psi. These pressures fall within the desired pressure range of 50 to 80 psi and are thus considered acceptable.

3.2 Maximum Day Plus Fire Flow

Available fire flows across the proposed development lands must meet or exceed the RFF of 13,000 L/min (216.7 L/s) as described in **Section 2.1.2**.

Under full buildout maximum day + fire flow (MXDY+FF) conditions, model results show that fire flows greater than 13,000 L/min are achievable, with a residual pressure of 138 kPa (20 psi), in most locations within the Conservancy West lands. However, there are a few locations outlined in Table C-3 of **Appendix C** (nodes J363, J365 and J369), where the residual pressures during fire flow conditions are below 138 kPa (20 psi). The worst-case scenario occurs at node J365 where a maximum fire flow of 10,502 L/min is available at a residual pressure of 138 kPa (20 psi).

Fire flow requirements across the Conservancy West lands are to be confirmed at the detailed design stage and fire control measures are to be included as required. These fire control measures may include adding ordinary construction units, the addition of firewalls and/or using the alternative hydrant placing procedure outlined in Appendix I of ISDTB-2018-02 to avoid oversizing local pipes.

These results show that the proposed watermain sizing and layout along with fire control measures at a few locations will meet serviceability requirements.

3.3 Reliability Analysis

As per the City of Ottawa Design Guidelines, the system must be able to provide average day demand plus fire flow (AVDY+FF) while meeting serviceability requirements during a major failure (i.e., watermain break). To assess reliability and resiliency against major failures, a number of reliability scenarios were completed to confirm sufficient pressure and flow can be achieved during a major failure. These scenarios included the following and are shown in **Figure 3-1** :

1. **Break Scenario 1 –** Break in the backbone watermain from Connection 1;
2. **Break Scenario 2 –** Break in the backbone watermain from Connection 2;
3. **Break Scenario 3 –** Break in the backbone watermain from Connection 3 (crossing the Jock River);
4. **Break Scenario 4 –** Break along the southern east-west backbone watermain connecting to Conservancy East lands;
5. **Break Scenario 5 –** Break along the northern east-west backbone watermain connecting to Conservancy East lands;
6. **Break Scenario 6 –** Break in the south backbone watermain crossing O'Keefe municipal drain; and,
7. **Break Scenario 7** – Break in the north backbone watermain crossing O'Keefe municipal drain.

Under Break Scenario 1, all junctions meet the 13,000 L/min required fire flows, with the exception of nodes J363, J365 and J369, which can provide a minimum of 10,715 L/min. Fire flow requirements and fire flow measures are to be confirmed at the detailed design stage.

Under Break Scenario 2, all junctions meet the 13,000 L/min required fire flows, with the exception of nodes J363, J365 and J369, which can provide a minimum of 10,836 L/min. Fire flow requirements and fire flow measures are to be confirmed at the detailed design stage.

Under Break Scenario 3, all junctions meet the 13,000 L/min required fire flows, with the exception of nodes J239, J309, J313, J355, J363, J365 and J369, which can provide a minimum of 10,115 L/min. Fire flow requirements and fire flow measures are to be confirmed at the detailed design stage.

Under Break Scenario 4, all junctions meet the 13,000 L/min required fire flows, with the exception of nodes J237, J239, J241, J259, J261, J271, J285, J289, J297, J301, J309, J313, J329, J343, J345, J347, J349, J351, J353, J355, J363, J365 and J369, which can provide a minimum of 9,679 L/min. Fire flow requirements and fire flow measures are to be confirmed at the detailed design stage.

Under Break Scenario 5, all junctions meet the 13,000 L/min required fire flows, with the exception of nodes J363, J365 and J369, which can provide a minimum of 10,552 L/min. Fire flow requirements and fire flow measures are to be confirmed at the detailed design stage.

Under Break Scenario 6, all junctions meet the 13,000 L/min required fire flows, with the exception of nodes J313, J329, J331, J343, J345, J347, J349, J351, J353, J355, J363, J365 and J369, which can

provide a minimum of 11,449 L/min. Fire flow requirements and fire flow measures are to be confirmed at the detailed design stage.

Under Break Scenario 7, all junctions meet the 13,000 L/min required fire flows, with the exception of nodes J305, J309, J313, J363, J365 and J369, which can provide a minimum of 11,448 L/min. Fire flow requirements and fire flow measures are to be confirmed at the detailed design stage.

At the detailed design stage, fire flow requirements across the site are to be confirmed and the required fire flow measures to meet City criteria under all watermain break scenarios are to be determined. These fire control measures may include adding ordinary construction units, the addition of firewalls and/or using the alternative hydrant placing procedure outlined in Appendix I of ISDTB-2018-02 to avoid oversizing local pipes.

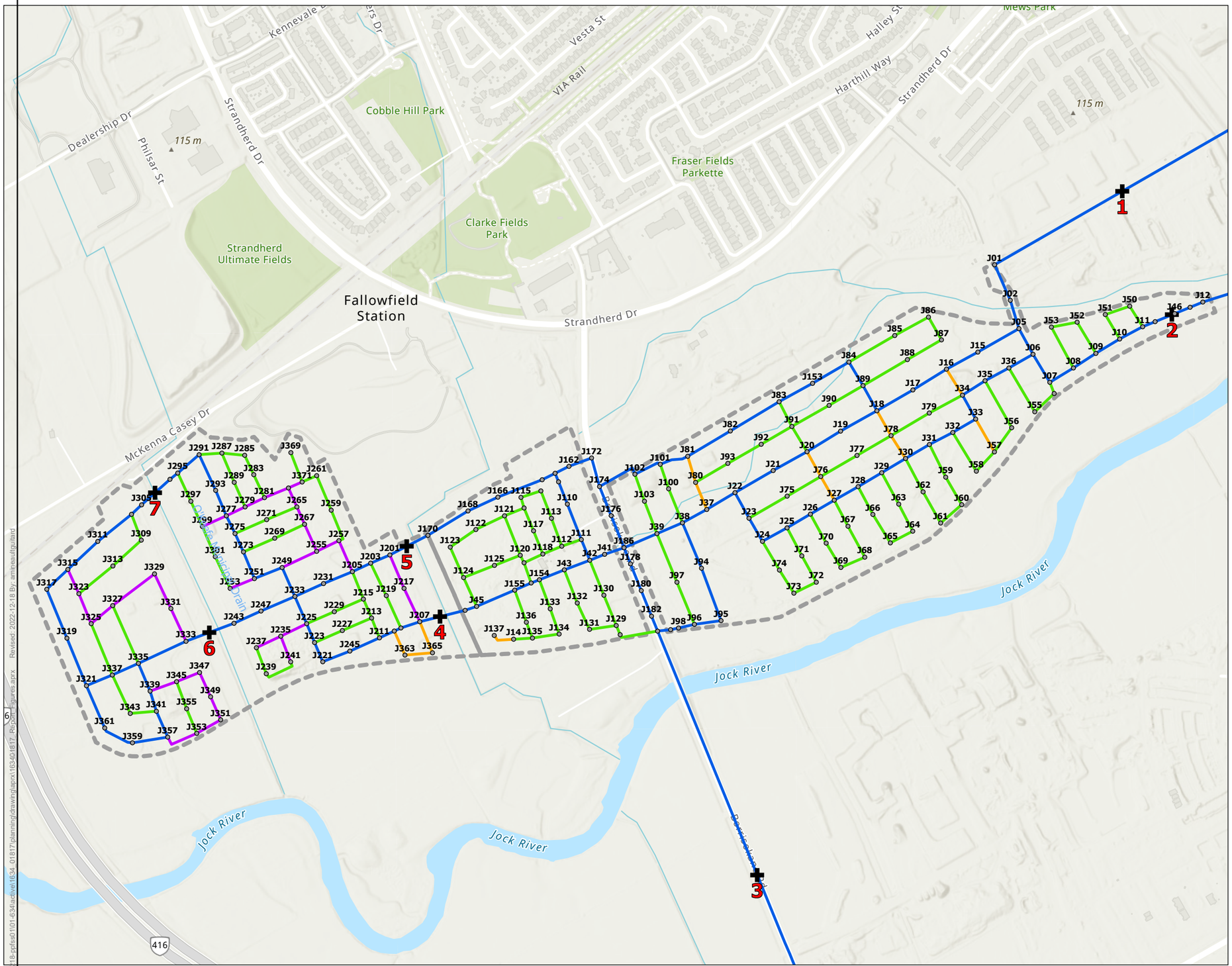


Figure No.
3-1

Title
Reliability Analysis Watermain Break Locations

Client/Project
David Schaeffer Engineering Ltd
Barrhaven Conservancy West: Water Distribution System Analysis

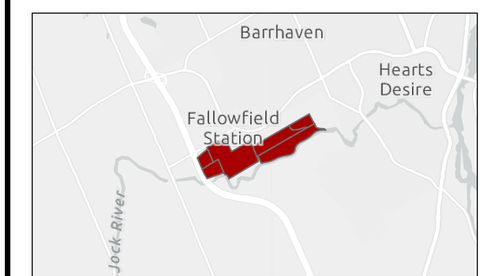
Project Location
Ottawa, Ontario, Canada

N

0 150 300 Meters
(At original document size of 11x17)
1:8,500

Legend
- Development Phase Boundary
- Model Node
- Watermain Break Location/Scenario

Proposed Watermain Diameter (mm)
- 152
- 203
- 254
- 305



Notes
1. Coordinate System: NAD 1983 CSRS MTM 9
2. Background: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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4 Conclusion and Recommendations

A water distribution system hydraulic analysis was completed for the Barrhaven Conservancy West development lands. The purpose of this analysis was to confirm associated watermain sizing and redundancy needs. Based on the hydraulic analysis, the following conclusions and recommendations were made:

- Based on the most current site plan layout, the estimated AVDY, MXDY and PKHR demand projections for the Conservancy West lands are 9.46 L/s, 23.64 L/s, and 52.01 L/s, respectively. With the Conservancy East lands, the total estimated AVDY, MXDY and PKHR demands for the entire development are 23.38 L/s, 58.44 L/s, and 128.57 L/s, respectively.
- Information regarding proposed unit sizes and unit spacing is not available at this time and as such, FUS calculations have not been completed. The previously fire flow objective of 13,000 L/min as established in the analysis of the Conservancy East lands (Stantec Consulting Ltd., 2022) was used for this analysis. It is recommended that the FUS calculations be reviewed during the detailed design stage to ensure that fire flow requirements are met across the site.
- Previous studies related to the Conservancy lands analyzed the serviceability of the development via two (2) and three (3) connections scenarios. This study only considered the scenario with three (3) connections. Furthermore, the analysis in this report considers the future zone SUC servicing conditions only.
- Within the Conservancy West lands, the network is proposed to consist of 152 mm, 203 mm, 254 mm, and 305 mm. The 305 mm backbone watermains connect at two (2) different locations to the Conservancy East lands network and extend west crossing the O'Keefe municipal drain at two (2) locations.
- The maximum number of units along a dead-end watermain should not exceed 49 to avoid the creation of a vulnerable service area. Based on the latest concept plans, each dead-end watermain within the Conservancy West lands services fewer than 49 single-family units.
- Under AVDY demand conditions, model results suggest that maximum pressures are below the allowable maximum pressure of 80 psi in accordance with the City of Ottawa Design Guidelines. Under PKHR demand conditions, the minimum pressures are in accordance with the City's system pressure requirements.
- Under MXDY+FF demand conditions, the assumed required fire flow of 13,000 L/min can be achieved across most of the proposed network at full build out conditions, with the exception of a few locations, where the worst-case scenario results in a maximum fire flow of 10,502 L/min available at a residual pressure of 138 kPa (20 psi). Fire flow requirements across the Conservancy West lands are to be confirmed at the detailed design stage and fire control measures are to be included as required. These fire control measures may include adding ordinary construction units, the addition of firewalls and/or using the alternative hydrant placing procedure outlined in Appendix I of ISDTB-2018-02 to avoid oversizing local pipes.

- To assess reliability and resiliency against major failures, a number of reliability scenarios were completed under AVDY+FF demand conditions to confirm sufficient pressure and flow can be achieved during a major failure. Under all break scenarios, some locations are slightly below the RFF of 13,000 L/min. At the detailed design stage, fire flow requirements across the site are to be confirmed and the required fire flow measures to meet City criteria under all watermain break scenarios are to be determined.

5 References

City of Ottawa. (2010). Ottawa Design Guidelines - Water Distribution. Ottawa.

City of Ottawa. (2018). Technical Bulletin ISTB-2018-02. Ottawa.

City of Ottawa. (2021). Technical Bulletin ISTB-2021-03. Ottawa.

Stantec Consulting Ltd. (2013). City of Ottawa 2013 Water Master Plan. Ottawa.

Stantec Consulting Ltd. (2021). Hydraulic Potable Water Assessment for Barrhaven Conservancy Development Corporation. Ottawa.

Stantec Consulting Ltd. (2022). Barrhaven Conservancy East (Phases 2, 3, 4 & Jock River): Water Distribution System Analysis. Ottawa.

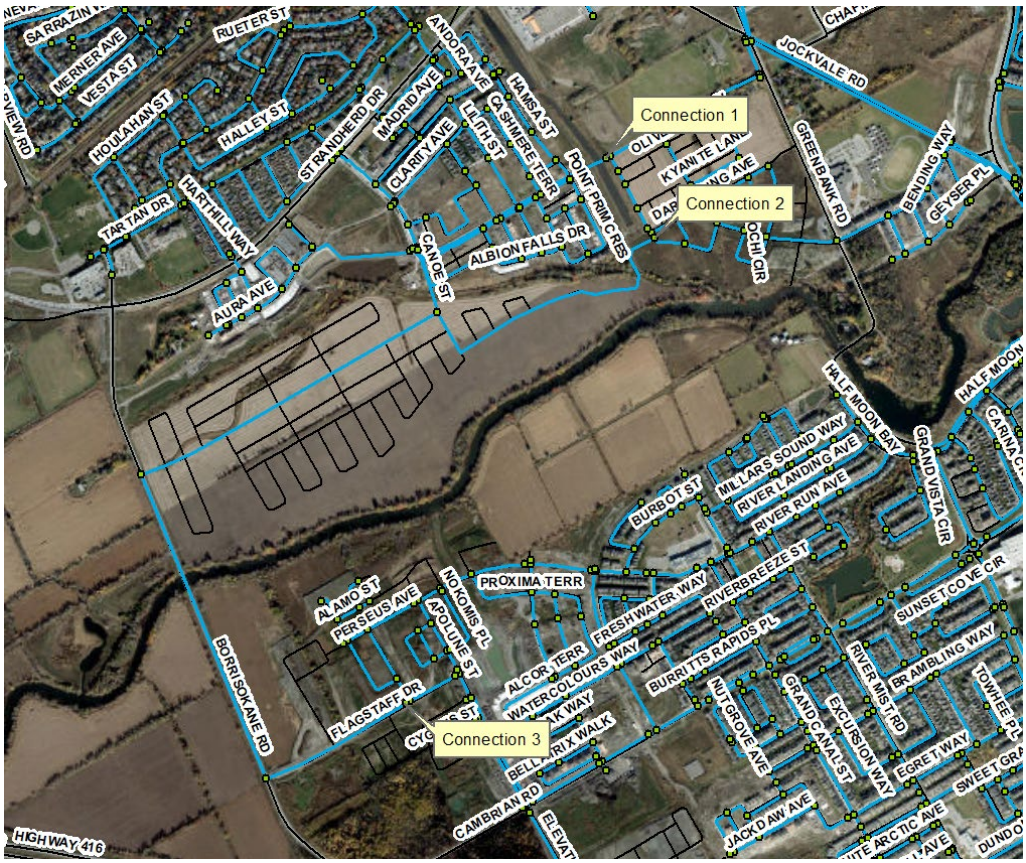
Appendix A Boundary Conditions

Boundary Conditions
Barrhaven Conservancy West

Provided Information

Scenario	Demand	
	L/min	L/s
Average Daily Demand	1,379	22.99
Maximum Daily Demand	3,449	57.49
Peak Hour	7,588	126.47
Fire Flow Demand #1	13,000	216.67

Location



Results – SUC Zone Reconfiguration

Connection 1 – Chapman Mills Dr.

Demand Scenario	Head (m)	Pressure[1] (psi)
Maximum HGL	146.7	76.2
Peak Hour	141.4	68.7
Basic Day plus Fire 1	139.7	66.3
Max Day plus Fire 1	137.9	63.7

Ground Elevation = 93.1 m

Connection 2 – Danson Gardens Grove / Darjeeling Ave.

Demand Scenario	Head (m)	Pressure[1] (psi)
Maximum HGL	146.7	78.0
Peak Hour	141.3	70.4
Basic Day plus Fire 1	138.1	65.9
Max Day plus Fire 1	136.2	63.2

Ground Elevation = 91.8 m

Connection 3 – Langstaff Dr. / Borrisokane Rd.

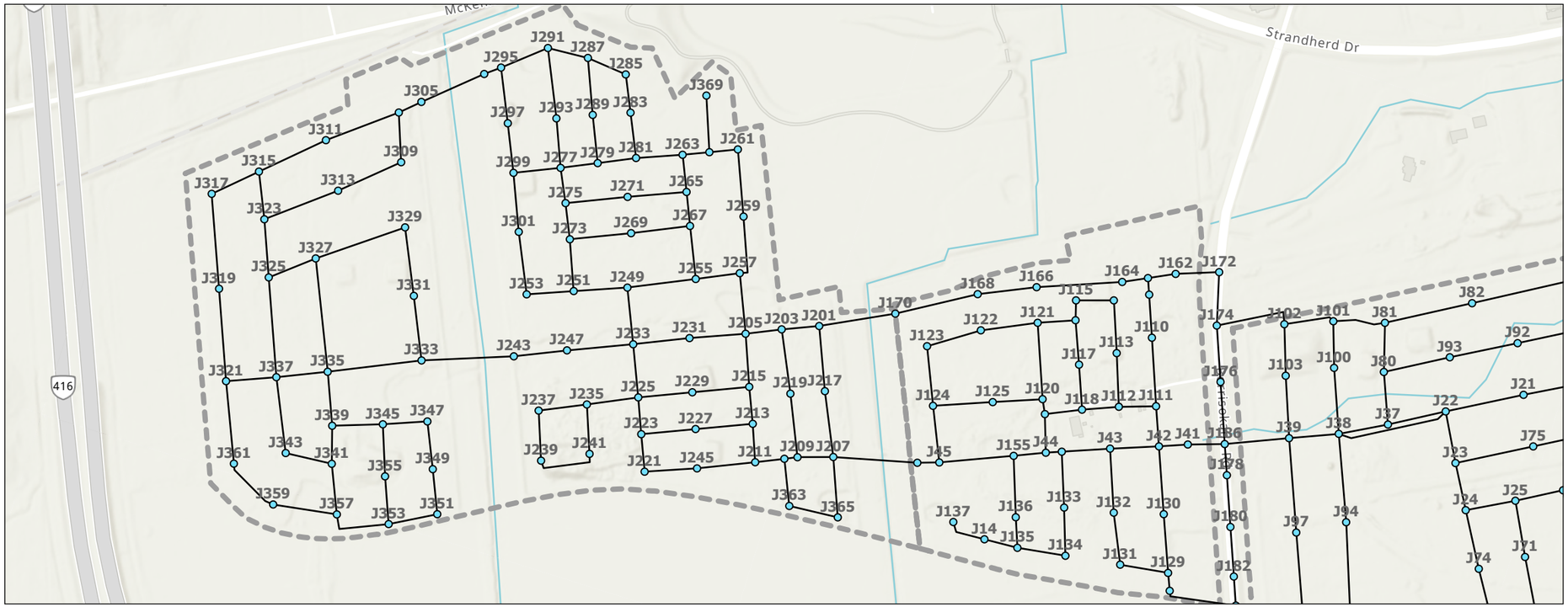
Demand Scenario	Head (m)	Pressure[1] (psi)
Maximum HGL	146.6	77.2
Peak Hour	141.0	69.3
Basic Day plus Fire 1	139.8	67.5
Max Day plus Fire 1	137.9	64.8

Ground Elevation = 92.3 m

Disclaimer

The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation. Fire Flow analysis is a reflection of available flow in the watermain; there may be additional restrictions that occur between the watermain and the hydrant that the model cannot take into account.

Appendix B Junction IDS



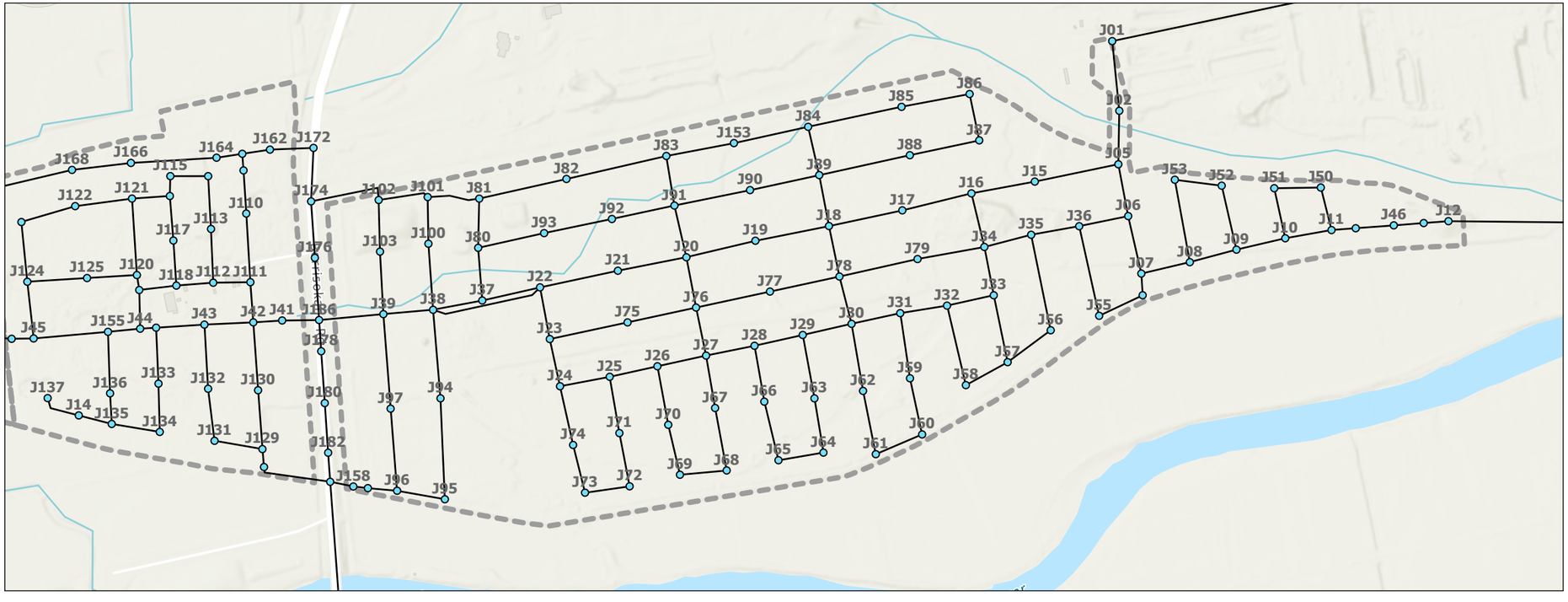


Figure No.
B-1

Title
Model System Map

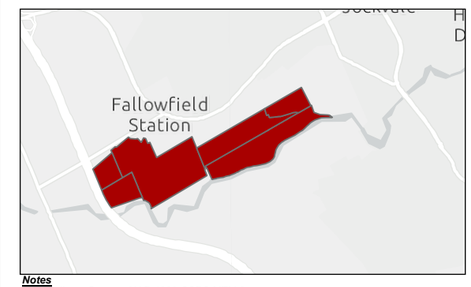
Client/Project
David Schaeffer Engineering Ltd
Barrhaven Conservancy West: Water Distribution System Analysis

Project Location
Ottawa, Ontario, Canada

N

0 100 200 Meters
(At original document size of 11x17)
1:6,000

Legend
- Development Phase Boundary
- Future Watermain
- Model Node



Notes
1. Coordinate System: NAD 1983 CSRS MTM 9
2. Background: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Appendix C Model Results

163401817 - Barrhaven Conservancy West: Water Distribution System Analysis

Table C-1: Model Results - AVDY

Junction ID	Demand (L/s)	Head (m)	Pressure (psi)
Maximum	*0.15*	*146.66*	*77.54*
Minimum	*0.00*	*146.55*	*75.01*
J01	0.07	146.64	75.54
J02	0.00	146.63	76.14
J05	0.07	146.63	76.63
J06	0.07	146.63	76.78
J07	0.11	146.63	76.94
J08	0.11	146.64	76.82
J09	0.11	146.64	76.31
J10	0.11	146.64	76.57
J100	0.15	146.59	75.96
J101	0.15	146.59	76.11
J102	0.15	146.58	75.99
J103	0.15	146.59	75.84
J109	0.11	146.57	76.10
J11	0.11	146.65	76.46
J110	0.11	146.57	76.27
J111	0.11	146.57	76.34
J112	0.11	146.57	76.23
J113	0.11	146.57	76.15
J114	0.11	146.57	76.01
J115	0.11	146.56	75.98
J116	0.11	146.56	76.02
J117	0.11	146.56	76.15
J118	0.11	146.57	76.23
J119	0.11	146.56	76.36
J12	0.11	146.66	76.34
J120	0.11	146.56	76.36
J121	0.11	146.56	76.16
J122	0.11	146.56	76.00
J123	0.11	146.56	76.15
J124	0.11	146.56	76.29
J125	0.11	146.56	76.47
J128	0.00	146.57	76.83
J129	0.11	146.57	76.81
J130	0.11	146.57	76.59
J131	0.11	146.57	76.71
J132	0.11	146.57	76.55
J133	0.11	146.56	76.63
J134	0.11	146.56	76.76
J135	0.11	146.56	76.86
J136	0.11	146.56	76.73
J137	0.11	146.56	76.64
J14	0.11	146.56	76.77
J15	0.07	146.62	76.48
J152	0.11	146.63	76.98
J153	0.15	146.60	75.94
J154	0.11	146.57	76.49
J155	0.11	146.56	76.60
J156	0.00	146.56	76.36
J158	0.00	146.58	76.88
J16	0.07	146.61	76.63
J162	0.00	146.57	75.98
J164	0.00	146.57	76.05
J166	0.00	146.57	75.86
J168	0.00	146.56	76.15
J17	0.07	146.61	76.45
J170	0.00	146.56	75.63
J172	0.00	146.57	75.99
J174	0.15	146.58	76.16
J176	0.15	146.57	76.27
J178	0.08	146.57	76.49
J18	0.07	146.60	76.23
J180	0.08	146.58	76.70
J182	0.08	146.58	76.82
J184	0.08	146.58	76.88
J186	0.08	146.57	76.39
J188	0.00	146.57	76.02
J19	0.10	146.60	76.01
J20	0.10	146.60	76.48
J201	0.11	146.56	76.49
J203	0.11	146.56	76.42
J205	0.11	146.56	76.35
J207	0.11	146.56	76.85
J209	0.11	146.56	76.65
J21	0.10	146.60	76.32
J211	0.11	146.56	76.55
J213	0.11	146.56	76.43
J215	0.11	146.56	76.35
J217	0.11	146.56	76.69
J219	0.11	146.56	76.45
J22	0.10	146.60	76.38
J221	0.11	146.56	75.71
J223	0.11	146.56	75.89
J225	0.11	146.56	76.20
J227	0.11	146.56	76.06
J229	0.11	146.56	77.54
J23	0.10	146.60	76.51
J231	0.11	146.56	76.16
J233	0.11	146.55	76.08
J235	0.11	146.56	76.29
J237	0.11	146.56	76.29
J239	0.11	146.56	76.40
J24	0.10	146.60	76.64
J241	0.11	146.56	76.42
J243	0.11	146.55	75.56
J245	0.11	146.56	76.28
J247	0.11	146.55	75.82
J249	0.11	146.55	75.92
J25	0.10	146.60	76.52
J251	0.11	146.55	75.79
J253	0.11	146.55	75.68
J255	0.11	146.55	76.12
J257	0.11	146.55	76.00
J259	0.11	146.55	75.85
J26	0.10	146.60	76.62
J261	0.11	146.55	75.68
J263	0.11	146.55	75.18
J265	0.11	146.55	75.89
J267	0.11	146.55	75.98
J269	0.11	146.55	75.49
J27	0.10	146.60	76.75
J271	0.11	146.55	75.39
J273	0.11	146.55	75.66
J275	0.11	146.55	75.56
J277	0.11	146.55	75.46
J279	0.11	146.55	75.38
J28	0.10	146.60	76.68
J281	0.11	146.55	75.28
J283	0.11	146.55	77.21
J285	0.11	146.55	75.08
J287	0.11	146.55	75.08
J289	0.11	146.55	75.26
J29	0.10	146.60	76.69
J291	0.11	146.55	75.14
J293	0.11	146.55	75.35
J295	0.11	146.55	75.06
J297	0.11	146.55	75.24
J299	0.11	146.55	75.35
J30	0.07	146.61	76.62
J301	0.11	146.55	75.52
J303	0.00	146.55	75.01
J305	0.00	146.55	75.15
J307	0.11	146.55	75.22
J309	0.11	146.55	75.18
J31	0.07	146.61	76.75
J311	0.11	146.55	75.04
J313	0.11	146.55	75.16
J315	0.11	146.55	75.25
J317	0.11	146.55	75.22
J319	0.11	146.55	75.48
J32	0.07	146.61	76.65
J321	0.11	146.55	75.70
J323	0.11	146.55	75.38
J325	0.11	146.55	75.52
J327	0.11	146.55	75.58
J329	0.11	146.55	75.70
J33	0.07	146.61	76.88
J331	0.11	146.55	75.87
J333	0.11	146.55	76.06
J335	0.11	146.55	75.87
J337	0.11	146.55	75.77
J339	0.11	146.55	76.02
J34	0.07	146.61	76.76
J341	0.11	146.55	76.10
J343	0.11	146.55	75.97
J345	0.11	146.55	76.10
J347	0.11	146.55	76.22
J349	0.11	146.55	76.34
J35	0.07	146.62	76.72
J351	0.11	146.55	76.46
J353	0.11	146.55	76.33
J355	0.11	146.55	76.20
J357	0.11	146.55	76.23
J359	0.11	146.55	76.06
J36	0.07	146.62	76.86
J361	0.11	146.55	75.92
J363	0.11	146.56	76.72
J365	0.11	146.56	76.86
J367	0.11	146.56	76.61
J369	0.11	146.55	75.48
J37	0.08	146.60	76.29
J371	0.11	146.55	75.61
J38	0.08	146.59	76.42
J39	0.08	146.59	76.41
J40	0.11	146.66	76.37
J41	0.11	146.57	76.44
J42	0.11	146.57	76.48
J43	0.11	146.57	76.38
J44	0.11	146.56	76.53
J45	0.11	146.56	76.41
J46	0.11	146.66	76.40
J48	0.11	146.65	76.44
J50	0.11	146.65	76.35
J51	0.11	146.65	76.49
J52	0.11	146.64	76.51
J53	0.11	146.64	76.60
J55	0.11	146.63	77.09
J56	0.11	146.61	76.93
J57	0.11	146.61	77.07
J58	0.11	146.61	76.94
J59	0.11	146.61	76.83
J60	0.11	146.61	77.06
J61	0.11	146.61	76.93
J62	0.11	146.61	76.83
J63	0.11	146.60	76.88
J64	0.11	146.60	77.00
J65	0.11	146.60	77.01
J66	0.11	146.60	76.84
J67	0.11	146.60	76.91
J68	0.11	146.60	77.05
J69	0.11	146.60	76.91
J70	0.11	146.60	76.74
J71	0.11	146.60	76.69
J72	0.11	146.60	76.79
J73	0.11	146.60	76.91
J74	0.11	146.60	76.81
J75	0.10	146.60	76.45
J76	0.10	146.60	76.62
J77	0.10	146.60	76.34
J78	0.07	146.61	76.50
J79	0.07	146.61	76.60
J80	0.15	146.59	76.15
J81	0.15	146.59	75.96
J82	0.15	146.59	76.00
J83	0.15	146.60	76.22
J84	0.15	146.60	76.10
J85	0.15	146.60	76.19
J86	0.15	146.60	76.41
J87	0.15	146.60	76.37
J88	0.15	146.60	76.22
J89	0.15	146.60	76.22
J90	0.15	146.60	76.05
J91	0.15	146.60	76.35
J92	0.15	146.60	76.16
J93	0.15	146.60	76.05
J94	0.08	146.59	76.67
J95	0.08	146.59	76.90
J96	0.08	146.59	76.77
J97	0.08	146.59	76.53
J98	0.00	146.59	76.69

163401817 - Barrhaven Conservancy West: Water Distribution System Analysis

Table C-2: Model Results - PKHR

Junction ID	Demand (L/s)	Head (m)	Pressure (psi)
Maximum	*0.83*	*140.68*	*67.84*
Minimum	*0.00*	*138.90*	*64.14*
J01	0.39	140.37	66.62
J02	0.00	140.23	67.04
J05	0.39	140.13	67.39
J06	0.39	140.12	67.53
J07	0.58	140.17	67.76
J08	0.58	140.25	67.74
J09	0.58	140.31	67.31
J10	0.58	140.39	67.68
J100	0.83	139.57	65.98
J101	0.83	139.55	66.10
J102	0.83	139.51	65.93
J103	0.83	139.55	65.83
J109	0.59	139.28	65.73
J11	0.58	140.45	67.66
J110	0.59	139.27	65.90
J111	0.59	139.27	65.97
J112	0.59	139.21	65.78
J113	0.59	139.20	65.68
J114	0.59	139.19	65.52
J115	0.59	139.18	65.49
J116	0.59	139.18	65.52
J117	0.59	139.19	65.66
J118	0.59	139.19	65.75
J119	0.59	139.18	65.86
J12	0.58	140.68	67.84
J120	0.59	139.17	65.85
J121	0.59	139.17	65.66
J122	0.59	139.16	65.48
J123	0.59	139.16	65.61
J124	0.59	139.15	65.75
J125	0.59	139.16	65.95
J128	0.00	139.25	66.43
J129	0.59	139.25	66.41
J130	0.59	139.26	66.21
J131	0.59	139.25	66.30
J132	0.59	139.24	66.13
J133	0.59	139.18	66.13
J134	0.59	139.17	66.25
J135	0.59	139.17	66.34
J136	0.59	139.17	66.21
J137	0.59	139.16	66.12
J14	0.59	139.17	66.25
J15	0.39	140.01	67.08
J152	0.58	140.16	67.78
J153	0.83	139.66	66.07
J154	0.59	139.19	66.01
J155	0.59	139.16	66.08
J156	0.00	139.11	65.76
J158	0.00	139.68	67.06
J16	0.39	139.92	67.11
J162	0.00	139.31	65.66
J164	0.00	139.26	65.66
J166	0.00	139.19	65.38
J168	0.00	139.15	65.61
J17	0.39	139.82	66.80
J170	0.00	139.09	65.01
J172	0.00	139.35	65.72
J174	0.83	139.41	65.97
J176	0.83	139.41	66.08
J178	0.44	139.46	66.38
J18	0.39	139.72	66.45
J180	0.44	139.56	66.73
J182	0.44	139.65	66.98
J184	0.44	139.71	67.11
J186	0.44	139.40	66.20
J188	0.00	139.28	65.66
J19	0.56	139.70	66.21
J20	0.56	139.68	66.65
J201	0.62	139.03	65.79
J203	0.62	139.00	65.68
J205	0.62	138.97	65.57
J207	0.62	139.03	66.15
J209	0.62	139.01	65.92
J21	0.56	139.68	66.48
J211	0.62	138.99	65.79
J213	0.62	138.97	65.66
J215	0.62	138.97	65.56
J217	0.62	139.03	65.99
J219	0.62	139.01	65.71
J22	0.56	139.67	66.53
J221	0.62	138.97	64.93
J223	0.62	138.97	65.10
J225	0.62	138.96	65.40
J227	0.62	138.97	65.28
J229	0.62	138.96	66.75
J23	0.56	139.68	66.67
J231	0.62	138.96	65.36
J233	0.62	138.95	65.26
J235	0.62	138.96	65.49
J237	0.62	138.96	65.49
J239	0.62	138.96	65.60
J24	0.56	139.69	66.81
J241	0.62	138.96	65.61
J243	0.62	138.92	64.72
J245	0.62	138.98	65.51
J247	0.62	138.93	64.99
J249	0.62	138.94	65.09
J25	0.56	139.69	66.71
J251	0.62	138.93	64.95
J253	0.62	138.92	64.83
J255	0.62	138.94	65.29
J257	0.62	138.94	65.18
J259	0.62	138.93	65.01
J26	0.56	139.70	66.82
J261	0.62	138.92	64.83
J263	0.62	138.92	64.33
J265	0.62	138.92	65.04
J267	0.62	138.93	65.13
J269	0.62	138.92	64.64
J27	0.56	139.72	66.97
J271	0.62	138.92	64.54
J273	0.62	138.92	64.81
J275	0.62	138.92	64.71
J277	0.62	138.92	64.61
J279	0.62	138.92	64.52
J28	0.56	139.74	66.93
J281	0.62	138.92	64.42
J283	0.62	138.91	66.35
J285	0.62	138.91	64.22
J287	0.62	138.91	64.22
J289	0.62	138.91	64.40
J29	0.56	139.76	66.95
J291	0.62	138.91	64.27
J293	0.62	138.91	64.49
J295	0.62	138.91	64.20
J297	0.62	138.91	64.37
J299	0.62	138.92	64.49
J30	0.39	139.79	66.92
J301	0.62	138.92	64.67
J303	0.00	138.91	64.14
J305	0.00	138.91	64.28
J307	0.62	138.90	64.35
J309	0.62	138.90	64.30
J31	0.39	139.82	67.10
J311	0.62	138.90	64.16
J313	0.62	138.90	64.29
J315	0.62	138.90	64.37
J317	0.62	138.90	64.34
J319	0.62	138.90	64.60
J32	0.39	139.86	67.05
J321	0.62	138.90	64.82
J323	0.62	138.90	64.50
J325	0.62	138.90	64.64
J327	0.62	138.90	64.70
J329	0.62	138.90	64.83
J33	0.39	139.89	67.32
J331	0.62	138.91	65.00
J333	0.62	138.91	65.19
J335	0.62	138.90	65.00
J337	0.62	138.90	64.90
J339	0.62	138.90	65.14
J34	0.39	139.92	67.24
J341	0.62	138.90	65.22
J343	0.62	138.90	65.09
J345	0.62	138.90	65.22
J347	0.62	138.90	65.33
J349	0.62	138.90	65.46
J35	0.39	139.98	67.28
J351	0.62	138.90	65.58
J353	0.62	138.90	65.45
J355	0.62	138.90	65.32
J357	0.62	138.90	65.35
J359	0.62	138.90	65.18
J36	0.39	140.06	67.53
J361	0.62	138.90	65.04
J363	0.62	139.01	65.99
J365	0.62	139.02	66.14
J367	0.62	139.01	65.87
J369	0.62	138.92	64.63
J37	0.44	139.63	66.39
J371	0.62	138.92	64.75
J38	0.44	139.61	66.49
J39	0.44	139.60	66.48
J40	0.58	140.63	67.80
J41	0.59	139.33	66.15
J42	0.59	139.28	66.12
J43	0.59	139.24	65.96
J44	0.59	139.18	66.04
J45	0.59	139.12	65.84
J46	0.58	140.57	67.75
J48	0.58	140.50	67.69
J50	0.58	140.43	67.51
J51	0.58	140.41	67.62
J52	0.58	140.28	67.47
J53	0.58	140.27	67.55
J55	0.58	140.12	67.84
J56	0.58	139.92	67.41
J57	0.58	139.89	67.52
J58	0.58	139.88	67.37
J59	0.58	139.81	67.16
J60	0.58	139.80	67.38
J61	0.58	139.79	67.25
J62	0.58	139.79	67.14
J63	0.58	139.75	67.14
J64	0.58	139.74	67.25
J65	0.58	139.74	67.26
J66	0.58	139.74	67.08
J67	0.58	139.71	67.12
J68	0.58	139.71	67.25
J69	0.58	139.71	67.11
J70	0.58	139.70	66.94
J71	0.58	139.69	66.87
J72	0.58	139.69	66.97
J73	0.58	139.69	67.08
J74	0.58	139.69	66.98
J75	0.56	139.69	66.63
J76	0.56	139.71	66.83
J77	0.56	139.74	66.59
J78	0.39	139.78	66.79
J79	0.39	139.85	66.99
J80	0.83	139.62	66.23
J81	0.83	139.57	65.98
J82	0.83	139.60	66.07
J83	0.83	139.64	66.33
J84	0.80	139.68	66.25
J85	0.80	139.68	66.35
J86	0.80	139.68	66.57
J87	0.80	139.68	66.53
J88	0.80	139.68	66.39
J89	0.80	139.69	66.40
J90	0.83	139.67	66.21
J91	0.83	139.66	66.48
J92	0.83	139.64	66.28
J93	0.83	139.63	66.14
J94	0.44	139.61	66.74
J95	0.44	139.61	66.97
J96	0.44	139.61	66.84
J97	0.44	139.60	66.59
J98	0.00	139.64	66.82

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Table C-3: Model Results - MXDY+FF

Junction ID	Base Demand (L/s)	Required Fire Flow (L/s)	Residual Pressure (psi)	Available Fire Flow @ Residual 20 psi (L/s)
Maximum	*0.38*	*216.67*	*54.79*	*584.55*
Minimum	*0.00*	*216.67*	*0.10*	*175.04*
J01	0.18	216.67	53.29	542.93
J02	0.00	216.67	54.00	560.49
J05	0.18	216.67	54.74	584.55
J06	0.18	216.67	54.79	584.31
J07	0.27	216.67	54.68	570.89
J08	0.27	216.67	54.32	557.22
J09	0.27	216.67	53.72	548.42
J10	0.27	216.67	53.98	548.55
J100	0.38	216.67	44.68	362.52
J101	0.38	216.67	50.37	464.39
J102	0.38	216.67	50.16	462.49
J103	0.38	216.67	44.16	357.02
J109	0.27	216.67	46.63	394.47
J11	0.27	216.67	53.95	549.78
J110	0.27	216.67	46.50	390.36
J111	0.27	216.67	46.99	397.64
J112	0.27	216.67	42.15	335.80
J113	0.27	216.67	34.16	274.72
J114	0.27	216.67	32.99	268.45
J115	0.27	216.67	35.58	283.78
J116	0.27	216.67	38.40	303.52
J117	0.27	216.67	36.70	290.70
J118	0.27	216.67	41.22	326.79
J119	0.27	216.67	42.63	340.67
J12	0.27	216.67	54.61	578.41
J120	0.27	216.67	41.29	327.02
J121	0.27	216.67	38.52	303.99
J122	0.27	216.67	32.22	264.43
J123	0.27	216.67	32.45	265.45
J124	0.27	216.67	39.28	309.74
J125	0.27	216.67	36.34	287.51
J129	0.27	216.67	31.10	257.49
J130	0.27	216.67	34.67	276.45
J131	0.27	216.67	31.21	258.15
J132	0.27	216.67	34.67	276.66
J133	0.27	216.67	34.97	278.55
J134	0.27	216.67	31.90	261.69
J135	0.27	216.67	32.36	263.87
J136	0.27	216.67	34.34	274.76
J15	0.18	216.67	52.92	518.63
J152	0.27	216.67	50.00	430.38
J153	0.38	216.67	49.38	440.96
J154	0.27	216.67	45.62	376.70
J155	0.27	216.67	45.06	368.60
J156	0.00	216.67	43.64	353.23
J16	0.18	216.67	52.68	508.86
J162	0.00	216.67	46.98	400.66
J164	0.00	216.67	45.90	383.64
J166	0.00	216.67	43.58	354.78
J168	0.00	216.67	42.91	345.63
J17	0.18	216.67	51.96	493.38
J170	0.00	216.67	41.59	335.12
J172	0.00	216.67	47.63	411.14
J174	0.38	216.67	49.30	441.35
J176	0.38	216.67	48.70	426.37
J178	0.20	216.67	49.28	433.66
J18	0.18	216.67	51.84	498.20
J180	0.20	216.67	49.58	433.56
J182	0.20	216.67	49.86	434.87
J184	0.20	216.67	50.06	436.46
J186	0.20	216.67	49.18	434.93
J188	0.00	216.67	46.80	397.83
J19	0.25	216.67	50.63	468.94
J20	0.25	216.67	51.36	479.48
J201	0.28	216.67	42.19	337.51
J203	0.28	216.67	41.47	330.97
J205	0.28	216.67	40.66	323.82
J207	0.28	216.67	42.90	342.84
J209	0.28	216.67	41.96	334.43
J21	0.25	216.67	50.65	463.94
J211	0.28	216.67	40.99	325.65
J213	0.28	216.67	37.98	300.69
J215	0.28	216.67	37.51	297.48
J217	0.28	216.67	40.49	319.80
J219	0.28	216.67	34.69	278.17
J22	0.25	216.67	51.23	478.56
J221	0.28	216.67	38.90	310.92
J223	0.28	216.67	39.30	313.66
J225	0.28	216.67	39.66	315.57
J227	0.28	216.67	33.37	271.45
J229	0.28	216.67	34.77	276.51
J23	0.25	216.67	50.88	466.32
J231	0.28	216.67	39.48	314.19
J233	0.28	216.67	39.53	315.14
J235	0.28	216.67	32.41	265.89
J237	0.28	216.67	28.36	246.57
J239	0.28	216.67	24.12	230.14
J24	0.25	216.67	50.43	452.49
J241	0.28	216.67	28.44	246.79
J243	0.28	216.67	35.42	285.68
J245	0.28	216.67	39.66	314.91
J247	0.28	216.67	36.89	295.15
J249	0.28	216.67	38.37	306.15
J25	0.25	216.67	50.10	446.35
J251	0.28	216.67	37.36	298.79
J253	0.28	216.67	33.54	273.52
J255	0.28	216.67	37.82	301.00
J257	0.28	216.67	37.85	301.57
J259	0.28	216.67	28.83	249.09
J26	0.25	216.67	50.19	446.51
J261	0.28	216.67	30.03	254.86
J263	0.28	216.67	35.25	285.53
J265	0.28	216.67	36.27	290.51
J267	0.28	216.67	36.66	292.96
J269	0.28	216.67	30.29	256.34
J27	0.25	216.67	50.53	451.84
J271	0.28	216.67	29.92	254.69
J273	0.28	216.67	36.89	295.69
J275	0.28	216.67	36.70	294.65
J277	0.28	216.67	36.54	293.86
J279	0.28	216.67	35.29	285.31
J28	0.25	216.67	50.42	450.01
J281	0.28	216.67	34.96	283.33
J283	0.28	216.67	30.50	255.24
J285	0.28	216.67	27.97	246.08
J287	0.28	216.67	31.96	265.72
J289	0.28	216.67	29.18	251.36
J29	0.25	216.67	50.58	453.31
J291	0.28	216.67	35.23	285.61
J293	0.28	216.67	35.50	286.85
J295	0.28	216.67	34.87	283.41
J297	0.28	216.67	29.85	254.57
J299	0.28	216.67	34.34	279.20
J30	0.18	216.67	50.98	463.67
J301	0.28	216.67	28.91	249.84
J303	0.00	216.67	34.50	280.87
J305	0.00	216.67	33.75	275.79
J307	0.28	216.67	33.59	274.98
J309	0.28	216.67	24.82	233.24
J31	0.18	216.67	51.24	467.28
J311	0.28	216.67	32.55	269.27
J313	0.28	216.67	22.70	225.66
J315	0.28	216.67	32.92	271.00
J317	0.28	216.67	32.02	265.93
J319	0.28	216.67	31.78	264.23
J32	0.18	216.67	51.60	478.08
J321	0.28	216.67	32.75	269.20
J323	0.28	216.67	32.20	266.66
J325	0.28	216.67	31.93	264.93
J327	0.28	216.67	31.36	261.84
J329	0.28	216.67	29.44	252.16
J33	0.18	216.67	52.24	490.37
J331	0.28	216.67	30.65	257.80
J333	0.28	216.67	34.58	279.20
J335	0.28	216.67	33.52	273.26
J337	0.28	216.67	33.07	270.85
J339	0.28	216.67	32.47	267.08
J34	0.18	216.67	52.84	511.38
J341	0.28	216.67	32.20	265.50
J343	0.28	216.67	26.40	238.92
J345	0.28	216.67	29.68	252.92
J347	0.28	216.67	27.64	243.81
J349	0.28	216.67	27.00	241.10
J35	0.18	216.67	53.20	523.53
J351	0.28	216.67	27.63	243.57
J353	0.28	216.67	29.52	251.92
J355	0.28	216.67	24.73	232.48
J357	0.28	216.67	32.10	264.74
J359	0.28	216.67	31.50	261.87
J36	0.18	216.67	54.07	550.36
J361	0.28	216.67	31.56	262.39
J363	0.28	216.67	3.54	180.50
J365	0.28	216.67	0.10	175.04
J367	0.28	216.67	41.63	331.43
J369	0.28	216.67	9.96	191.72
J37	0.20	216.67	50.45	460.25
J371	0.28	216.67	33.79	275.20
J38	0.20	216.67	49.92	445.86
J39	0.20	216.67	48.87	423.56
J40	0.27	216.67	54.40	568.96
J41	0.27	216.67	48.18	416.33
J42	0.27	216.67	47.65	407.29
J43	0.27	216.67	46.33	387.53
J44	0.27	216.67	45.49	374.67
J45	0.27	216.67	44.14	358.89
J46	0.27	216.67	54.21	560.26
J48	0.27	216.67	54.03	552.70
J50	0.27	216.67	46.80	381.60
J51	0.27	216.67	46.49	376.02
J52	0.27	216.67	43.83	344.45
J53	0.27	216.67	43.15	336.82
J55	0.27	216.67	46.05	366.57
J56	0.27	216.67	41.67	322.45
J57	0.27	216.67	43.72	341.36
J58	0.27	216.67	42.37	328.88
J59	0.27	216.67	38.47	298.27
J60	0.27	216.67	34.53	273.32
J61	0.27	216.67	34.12	271.37
J62	0.27	216.67	38.21	296.44
J63	0.27	216.67	38.53	298.65
J64	0.27	216.67	35.03	276.33
J65	0.27	216.67	35.12	276.77
J66	0.27	216.67	39.34	304.72
J67	0.27	216.67	39.87	308.63
J68	0.27	216.67	35.37	278.22
J69	0.27	216.67	35.40	278.71
J70	0.27	216.67	38.90	301.94
J71	0.27	216.67	39.30	305.16
J72	0.27	216.67	35.66	280.57
J73	0.27	216.67	35.84	281.38
J74	0.27	216.67	39.11	303.38
J75	0.25	216.67	42.09	329.70
J76	0.25	216.67	46.62	381.47
J77	0.25	216.67	41.50	324.43
J78	0.18	216.67	47.17	389.86
J79	0.18	216.67	43.70	344.12
J80	0.38	216.67	39.09	305.87
J81	0.38	216.67	49.90	454.28
J82	0.38	216.67	49.29	438.57
J83	0.38	216.67	50.02	450.97
J84	0.36	216.67	50.05	453.41
J85	0.36	216.67	33.14	267.82
J86	0.36	216.67	29.44	250.00
J87	0.36	216.67	29.45	250.08
J88	0.36	216.67	33.57	270.05
J89	0.36	216.67	50.89	472.00
J90	0.38	216.67	42.50	336.31
J91	0.38	216.67	49.26	431.73
J92	0.38	216.67	38.81	303.65
J93	0.38	216.67	35.73	282.96
J94	0.20	216.67	46.67	383.00
J95	0.20	216.67	44.14	348.87
J96	0.20	216.67	42.96	337.07
J97	0.20	216.67	37.89	295.61

Sufficient hydrant coverage to meet the RFF.

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Table C-4: Model Results - AVDY+FF (Reliability Analysis Scenarios 1 to 3)

	Break Scenario 1 (Connection 1 Break)				Break Scenario 2 (Connection 2 Break)				Break Scenario 3 (Connection 3 Break)			
Junction ID	Base Demand (L/s)	Required Fire Flow (L/s)	Residual Pressure (psi)	Available Fire Flow @ Residual 20 psi (L/s)	Base Demand (L/s)	Required Fire Flow (L/s)	Residual Pressure (psi)	Available Fire Flow @ Residual 20 psi (L/s)	Base Demand (L/s)	Required Fire Flow (L/s)	Residual Pressure (psi)	Available Fire Flow @ Residual 20 psi (L/s)
Maximum	*0.15*	*216.67*	*55.44*	*522.37*	*0.15*	*216.67*	*53.02*	*446.25*	*0.15*	*216.67*	*55.87*	*537.74*
Minimum	*0.00*	*216.67*	*0.79*	*178.58*	*0.00*	*216.67*	*1.66*	*180.60*	*0.00*	*216.67*	*-6.01*	*168.59*
J01	0.07	216.67	42.49	322.62	0.07	216.67	52.82	446.25	0.07	216.67	52.83	464.85
J02	0.00	216.67	47.13	365.68	0.00	216.67	52.77	438.21	0.00	216.67	52.92	459.83
J05	0.07	216.67	50.69	411.50	0.07	216.67	52.88	434.80	0.07	216.67	53.15	459.24
J06	0.07	216.67	51.96	432.12	0.07	216.67	51.89	415.95	0.07	216.67	53.24	459.48
J07	0.11	216.67	52.48	439.60	0.11	216.67	49.68	382.07	0.11	216.67	53.56	463.66
J08	0.11	216.67	52.75	446.29	0.11	216.67	46.66	348.62	0.11	216.67	53.70	468.32
J09	0.11	216.67	52.58	450.30	0.11	216.67	44.03	327.08	0.11	216.67	53.45	470.90
J10	0.11	216.67	53.39	463.44	0.11	216.67	41.39	305.95	0.11	216.67	54.14	482.54
J100	0.15	216.67	43.99	333.80	0.15	216.67	44.88	336.33	0.15	216.67	37.28	286.45
J101	0.15	216.67	47.86	375.22	0.15	216.67	48.76	377.58	0.15	216.67	42.97	327.73
J102	0.15	216.67	46.62	360.84	0.15	216.67	47.52	363.29	0.15	216.67	42.38	323.25
J103	0.15	216.67	43.40	329.08	0.15	216.67	44.29	331.64	0.15	216.67	36.33	281.18
J109	0.11	216.67	46.33	358.13	0.11	216.67	47.20	360.58	0.11	216.67	39.82	303.26
J11	0.11	216.67	53.71	472.60	0.11	216.67	39.31	292.75	0.11	216.67	54.39	490.72
J110	0.11	216.67	46.39	357.53	0.11	216.67	47.25	359.97	0.11	216.67	39.71	301.87
J111	0.11	216.67	47.08	365.09	0.11	216.67	47.95	367.49	0.11	216.67	40.23	305.37
J112	0.11	216.67	42.39	319.64	0.11	216.67	43.26	322.19	0.11	216.67	35.52	276.11
J113	0.11	216.67	34.46	269.36	0.11	216.67	35.33	271.88	0.11	216.67	27.59	240.74
J114	0.11	216.67	33.31	263.99	0.11	216.67	34.17	266.50	0.11	216.67	26.43	236.68
J115	0.11	216.67	35.90	277.23	0.11	216.67	36.77	279.77	0.11	216.67	29.03	246.38
J116	0.11	216.67	38.72	293.85	0.11	216.67	39.59	296.42	0.11	216.67	31.85	258.26
J117	0.11	216.67	37.01	283.09	0.11	216.67	37.88	285.63	0.11	216.67	30.14	250.71
J118	0.11	216.67	41.51	312.72	0.11	216.67	42.38	315.28	0.11	216.67	34.64	271.43
J119	0.11	216.67	42.96	323.92	0.11	216.67	43.83	326.45	0.11	216.67	36.08	279.03
J12	0.11	216.67	55.44	522.37	0.11	216.67	47.03	361.41	0.11	216.67	55.87	537.74
J120	0.11	216.67	41.62	313.12	0.11	216.67	42.49	315.67	0.11	216.67	34.75	271.80
J121	0.11	216.67	38.85	294.33	0.11	216.67	39.72	296.89	0.11	216.67	31.98	258.69
J122	0.11	216.67	32.58	260.62	0.11	216.67	33.45	263.13	0.11	216.67	25.71	234.18
J123	0.11	216.67	32.82	261.55	0.11	216.67	33.69	264.05	0.11	216.67	25.95	234.95
J124	0.11	216.67	39.64	299.18	0.11	216.67	40.51	301.74	0.11	216.67	32.78	262.21
J125	0.11	216.67	36.69	280.57	0.11	216.67	37.56	283.10	0.11	216.67	29.82	249.11
J129	0.11	216.67	31.40	254.45	0.11	216.67	32.27	256.88	0.11	216.67	24.44	229.69
J130	0.11	216.67	34.95	271.00	0.11	216.67	35.82	273.49	0.11	216.67	27.99	241.89
J131	0.11	216.67	31.51	255.02	0.11	216.67	32.38	257.46	0.11	216.67	24.56	230.09
J132	0.11	216.67	34.96	271.17	0.11	216.67	35.83	273.67	0.11	216.67	28.02	242.07
J133	0.11	216.67	35.34	273.05	0.11	216.67	36.21	275.55	0.11	216.67	28.46	243.67
J134	0.11	216.67	32.30	258.44	0.11	216.67	33.17	260.89	0.11	216.67	25.42	232.88
J135	0.11	216.67	32.77	260.42	0.11	216.67	33.64	262.88	0.11	216.67	25.89	234.43
J136	0.11	216.67	34.74	269.86	0.11	216.67	35.61	272.35	0.11	216.67	27.86	241.40
J15	0.07	216.67	49.79	398.82	0.07	216.67	51.34	410.27	0.07	216.67	50.50	412.08
J152	0.11	216.67	47.64	365.50	0.11	216.67	45.78	339.11	0.11	216.67	48.72	379.19
J153	0.15	216.67	48.09	379.82	0.15	216.67	49.02	382.42	0.15	216.67	43.93	336.59
J154	0.11	216.67	45.93	351.46	0.11	216.67	46.80	353.92	0.11	216.67	39.04	296.82
J155	0.11	216.67	45.41	345.56	0.11	216.67	46.28	348.03	0.11	216.67	38.55	293.31
J156	0.00	216.67	44.09	334.21	0.00	216.67	44.96	336.74	0.00	216.67	37.26	285.93
J158	0.00	216.67	51.65	423.38	0.00	216.67	52.51	425.35	0.00	216.67	41.24	310.32
J16	0.07	216.67	50.06	401.37	0.07	216.67	51.34	408.70	0.07	216.67	49.65	398.05
J162	0.00	216.67	46.27	357.96	0.00	216.67	47.14	360.41	0.00	216.67	40.07	305.27
J164	0.00	216.67	45.64	350.80	0.00	216.67	46.51	353.28	0.00	216.67	39.15	298.60
J166	0.00	216.67	43.63	332.13	0.00	216.67	44.50	334.68	0.00	216.67	37.00	285.40
J168	0.00	216.67	43.12	326.41	0.00	216.67	43.99	328.96	0.00	216.67	36.44	281.49
J17	0.07	216.67	49.85	399.95	0.07	216.67	50.97	404.93	0.07	216.67	48.15	379.45
J170	0.00	216.67	42.00	319.35	0.00	216.67	42.86	321.94	0.00	216.67	35.26	275.97
J172	0.00	216.67	46.32	358.33	0.00	216.67	47.19	360.78	0.00	216.67	40.56	308.75
J174	0.15	216.67	46.88	363.57	0.15	216.67	47.75	365.98	0.15	216.67	41.91	318.80
J176	0.15	216.67	47.87	374.73	0.15	216.67	48.74	377.08	0.15	216.67	41.59	315.72
J178	0.08	216.67	49.99	401.91	0.08	216.67	50.86	404.05	0.08	216.67	41.92	317.38
J18	0.07	216.67	50.32	410.01	0.07	216.67	51.30	412.99	0.07	216.67	47.14	369.30
J180	0.08	216.67	50.47	406.63	0.08	216.67	51.34	408.73	0.08	216.67	41.40	312.36
J182	0.08	216.67	51.35	419.29	0.08	216.67	52.21	421.30	0.08	216.67	41.18	310.26
J184	0.08	216.67	52.17	432.78	0.08	216.67	53.02	434.69	0.08	216.67	41.20	310.11
J186	0.08	216.67	49.96	402.89	0.08	216.67	50.83	405.03	0.08	216.67	42.53	322.92
J188	0.00	216.67	46.41	359.34	0.00	216.67	47.28	361.79	0.00	216.67	39.98	304.52
J19	0.10	216.67	49.38	397.41	0.10	216.67	50.32	399.91	0.10	216.67	45.68	353.78
J20	0.10	216.67	50.31	406.99	0.10	216.67	51.22	409.00	0.10	216.67	46.26	357.33
J201	0.11	216.67	42.77	322.44	0.11	216.67	43.64	324.99	0.11	216.67	35.99	278.54
J203	0.11	216.67	42.14	317.70	0.11	216.67	43.01	320.25	0.11	216.67	35.36	275.22
J205	0.11	216.67	41.41	312.36	0.11	216.67	42.28	314.93	0.11	216.67	34.62	271.51
J207	0.11	216.67	43.48	326.85	0.11	216.67	44.35	329.37	0.11	216.67	36.68	281.65
J209	0.11	216.67	42.60	320.41	0.11	216.67	43.47	322.94	0.11	216.67	35.80	277.19
J21	0.10	216.67	49.82	401.01	0.10	216.67	50.72	402.88	0.10	216.67	45.45	349.67
J211	0.11	216.67	41.68	313.61	0.11	216.67	42.55	316.16	0.11	216.67	34.89	272.51
J213	0.11	216.67	38.72	293.21	0.11	216.67	39.59	295.77	0.11	216.67	31.92	258.30
J215	0.11	216.67	38.26	290.57	0.11	216.67	39.13	293.13	0.11	216.67	31.47	256.37
J217	0.11	216.67	41.08	308.36	0.11	216.67	41.95	310.90	0.11	216.67	34.28	269.08
J219	0.11	216.67	35.35	273.69	0.11	216.67	36.22	276.21	0.11	216.67	28.56	244.28
J22	0.10	216.67	50.72	415.04	0.10	216.67	51.60	416.61	0.10	216.67	45.93	354.74
J221	0.11	216.67	39.65	301.65	0.11	216.67	40.52	304.26	0.11	216.67	32.86	263.67
J223	0.11	216.67	40.07	304.04	0.11	216.67	40.94	306.63	0.11	216.67	33.28	265.44
J225	0.11	216.67	40.46	305.79	0.11	216.67	41.32	308.37	0.11	216.67	33.66	266.88
J227	0.11	216.67	34.13	268.21	0.11	216.67	35.00	270.74	0.11	216.67	27.34	240.00
J229	0.11	216.67	35.54	272.80	0.11	216.67	36.41	275.27	0.11	216.67	28.75	244.22
J23	0.10	216.67	50.08	403.15	0.10	216.67	50.95	404.60	0.10	216.67	45.91	353.43
J231	0.11	216.67	40.28	304.64	0.11	216.67	41.14	307.22	0.11	216.67	33.48	266.06
J233	0.11	216.67	40.36	305.61	0.11	216.67	41.23	308.20	0.11	216.67	33.57	266.65
J235	0.11	216.67	33.25	263.63	0.11	216.67	34.12	266.14	0.11	216.67	26.45	236.72
J237	0.11	216.67	29.21	246.39	0.11	216.67	30.08	248.84	0.11	216.67	22.42	223.66
J239	0.11	216.67	24.98	231.38	0.11	216.67	25.85	233.75	0.11	216.67	18.18	212.00
J24	0.10	216.67	49.45	392.32	0.10	216.67	50.30	393.57	0.10	216.67	45.68	349.99
J241	0.11	216.67	29.29	246.58	0.11	216.67	30.15	249.03	0.11	216.67	22.49	223.87
J243	0.11	216.67	36.37	281.31	0.11	216.67	37.24	283.91	0.11	216.67	29.58	249.19
J245	0.11	216.67	40.38	304.95	0.11	216.67	41.25	307.52	0.11	216.67	33.59	266.37
J247	0.11	216.67	37.80	289.23	0.11	216.67	38.67	291.82	0.11	216.67	31.01	255.02
J249	0.11	216.67	39.24	298.31	0.11	216.67	40.11	300.91	0.11	216.67	32.45	261.48
J25	0.10	216.67	48.98	386.74	0.10	216.67	49.81	387.79	0.10	216.67	45.51	348.77
J251	0.11	216.67	38.27	292.27	0.11	216.67	39.14	294.87	0.11	216.67	31.48	257.15
J253	0.11	216.67	34.46	270.64	0.11	216.67	35.33	273.20	0.11	216.67	27.67	241.54
J255	0.11	216.67	38.69	294.02	0.11	216.67	39.55	296.60	0.11	216.67	31.89	258.62
J257	0.11	216.67	38.69	294.34	0.11	216.67	39.56	296.93	0.11	216.67	31.90	258.78
J259	0.11	216.67	29.72	248.82	0.11	216.67	30.59	251.31	0.11	216.67	22.93	225.31
J26	0.10	216.67	48.93	385.07	0.10	216.67	49.73	385.80	0.10	216.67	45.81	351.20
J261	0.11	216.67	30.95	254.10	0.11	216.67	31.82	256.61	0.11	216.67	24.16	229.23
J263	0.11	216.67	36.18	281.03	0.11	216.67	37.05	283.65	0.11	216.67	29.39	248.75
J265	0.11	216.67	37.19	285.32	0.11	216.67	38.06	287.91	0.11	216.67	30.39	252.29
J267	0.11	216.67	37.56	287.35	0.11	216.67	38.43	289.93	0.11	216.67	30.77	253.80
J269	0.11	216.67	31.21	255.45	0.11	216.67	32.08	257.98	0.11	216.67	24.42	230.15
J27	0.10	216.67	49.15	387.00	0.10	216.67	49.94	387.40	0.10	216.67	46.33	355.83
J271	0.11	216.67	30.85	254.01	0.11	216.67	31.72	256.54	0.11	216.67	24.06	229.01
J273	0.11	216.67	37.81	289.70	0.11	216.67	38.68	292.30	0.11	216.67	31.01	255.24
J275	0.11	216.67	37.63	288.85	0.11	216.67	38.50	291.46	0.11	216.67	30.84	254.57
J277	0.11	216.67	37.49	288.22	0.11	216.67	38.35	290.84	0.11	216.67	30.69	254.06
J279	0.11	216.67	36.24	280.93	0.11	216.67	37.10	283.54	0.11	216.67	29.44	248.81
J28	0.10	216.67	48.89	384.00	0.10	216.67	49.64	384.01	0.10	216.67	46.48	357.70
J281	0.11	216.67	35.90	279.21	0.11	216.67	36.77	281.82	0.11	216.67	29.11	247.51
J283	0.11	216.67	31.46	254.62	0.11	216.67	32.33	257.06	0.11	216.67	24.67	230.38
J285	0.11	216.67	28.94	246.37	0.11	216.67	29.81	248.89	0.11	216.67	22.15	223.05
J287	0.11	216.67	32.92	263.92	0.11	216.67	33.79	266.51	0.11	216.67	26.13	236.24
J289	0.11	216.67	30.14	251.11	0.11	216.67	31.01	253.64	0.11	216.67	23.35	226.75
J29	0.10	216.67	48.93	384.63	0.10	216.67	49.67	384.30	0.10	216.67	46.83	361.54
J291	0.11	216.67	36.19	281.24	0.11	216.67	37.06	283.86	0.11	216.67	29.40	248.86
J293	0.11	216.67	36.45	282.27	0.11	216.67	37.32	284.88	0.11	216.67	29.66	249.75
J295	0.11	216.67	35.85	279.40	0.11	216.67	36.72	282.02	0.11	216.67	29.05	247.50
J297	0.11	216.67	30.81	253.99	0.11	216.67	31.68	256.54	0.11	216.67	24.02	228.92
J299	0.11	216.67	35.29	275.65	0.11	216.67	36.16	278.25	0.11	216.67	28.50	244.99
J30	0.07	216.67	49.19	388.83	0.07	216.67	49.90	387.89	0.07	216.67	47.48	369.40
J301	0.11	216.67	29.85	249.66	0.11	216.67	30.72	252.17	0.11	216.67	23.06	225.78
J303	0.00	216.67	35.49	277.35	0.00	216.67	36.35	279.98	0.00	216.67	28.69	245.96
J305	0.00	216.67	34.75	273.07	0.00	216.67	35.62	275.68	0.00	216.67	27.96	242.94
J307	0.11	216.67	34.61	272.28	0.11	216.67	35.48	274.88	0.11	216.67	27.82	242.44
J309	0.11	216.67	25.87	234.90	0.11	216.67	26.74	237.37	0.11	216.67	19.07	214.23
J31	0.07	216.67	49.35	389.84	0.07	216.67	50.02	388.38	0.07	216.67	47.93	373.84
J311	0.11	216.67	33.59	267.33	0.11	216.67	34.46	269.93	0.11	216.67	26.80	238.70
J313	0.11	216.67	23.76	227.89	0.11	216.67	24.62	230.32	0.11	216.67	16.96	208.73
J315	0.11	216.67	33.97	268.91	0.11	216.67	34.84	271.50	0.11	216.67	27.18	239.99
J317	0.11	216.67	33.07	264.47	0.11	216.67	33.94	267.05	0.11	216.67	26.28	236.70
J319	0.11	216.67	32.84	262.99	0.11	216.67	33.71	265.56	0.11	216.67	26.05	235.75
J32	0.07	216.67	49.58	393.97	0.07	216.67	50.18	391.49	0.07	216.67	48.49	381.57
J321	0.11	216.67	33.82	267.43	0.11	216.67	34.69	269.99	0.11	216.67	27.03	239.16
J323	0.11	216.67	33.25	265.11	0.11	216.67	34.12	267.68	0.11	216.67	26.46	237.27
J325	0.11	216.67	32.98	263.59	0.11	216.67	33.85	266.15	0.11	216.67	26.19	236.22
J327	0.11	216.67	32.42	260.84	0.11	216.67	33.28	263.39	0.11	216.67	25.62	234.21
J329	0.11	216.67	30.49	252.15	0.11	216.67	31.35	254.66	0.11	216.67	23.69	227.74
J33	0.07	216.67	50.10	399.41	0.07	216.67	50.65	395.85	0.07	216.67	49.26	390.08
J331	0.11	216.67	31.70	257.20	0.11	216.67	32.57	259.72	0.11	216.67	24.91	231.64
J333	0.11	216.67	35.60	276.03	0.11	216.67	36.47	278.59	0.11	216.67	28.81	245.68
J335	0.11	216.67	34.58	270.98	0.11	216.67	35.45	273.54	0.11	216.67	27.79	241.87
J337	0.11	216.67	34.13	268.88	0.11	216.67	35.00	271.44	0.11	216.67	27.34	240.27
J339	0.11	216.67	33.55	265.61	0.11	216.67	34.42	268.15	0.11	216.67	26.76	237.99
J34	0.07	216.67	50.58	408.34	0.07	216.67	51.07	403.39	0.07	216.67	50.08	403.22
J341	0.11	216.67	33.29	264.21	0.11	216.67	34.15	266.74	0.11	216.67	26.49	237.00
J343	0.11	216.67	27.48	240.21	0.11	216.67	28.35	242.65	0.11	216.67	20.69	218.70
J345	0.11	216.67	30.79	253.02	0.11	216.67	31.65	255.51	0.11	216.67	23.99	228.59
J347	0.11	216.67	28.75	244.76	0.11	216.67	29.62	247.22	0.11	216.67	21.96	222.33
J349	0.11	216.67	28.12	242.29	0.11	216.67	28.98	244.72	0.11	216.67	21.32	220.47
J35	0.07	216.67	50.81	412.57	0.07	216.67	51.13	404.66	0.07	216.67	50.78	414.37
J351	0.11	216.67	28.74	244.54	0.11	216.67	29.61	246.98	0.11	216.67	21.95	222.27
J353	0.11	216.67	30.63	252.12	0.11	216.67	31.50	254.60	0.11	216.67	23.83	228.02
J355	0.11	216.67	25.84	234.34	0.11	216.67	26.71	236.75	0.11	216.67	19.05	214.22
J357	0.11	216.67	33.19	263.56	0.11	216.67	34.05	266.08	0.11	216.67	26.39	236.58
J359	0.11	216.67	32.58	260.99	0.11	216.67	33.45	263.51	0.11	216.67	25.79	234.57
J36	0.07	216.67	51.52	422.97	0.07	216.67	51.52	409.22	0.07	216.67	52.15	436.53
J361	0.11	216.67	32.64	261.43	0.11	216.67	33.51	263.96	0.11	216.67	25.85	234.82
J363	0.11	216.67	4.24	183.93	0.11	216.67	5.11	185.99	0.11	216.67	-2.56	173.13
J365	0.11	216.67	0.79	178.58	0.11	216.67	1.66	180.60	0.11	216.67	-6.01	168.59
J367	0.11	216.67	42.29	318.09	0.11	216.67	43.16	320.63	0.11	216.67	35.49	275.59
J369	0.11	216.67	10.92	195.45	0.11	216.67	11.79	197.67	0.11	216.67	4.13	182.53
J37	0.08	216.67	50.76	416.60	0.08	216.67	51.64	418.34	0.08	216.67	44.62	342.00
J371	0.11	216.67	34.72	272.12	0.11	216.67	35.59	274.70	0.11	216.67	27.93	242.58
J38	0.08	216.67	51.28	424.31	0.08	216.67	52.16	426.10	0.08	216.67	43.80	333.80
J39	0.08	216.67	50.91	417.95	0.08	216.67	51.79	419.89	0.08	216.67	43.06	327.24
J40	0.11	216.67	55.02	509.00	0.11	216.67	33.88	264.29	0.11	216.67	55.50	524.89
J41	0.11	216.67	48.58	382.87	0.11	216.67	49.45	385.16	0.11	216.67	41.44	314.01
J42	0.11	216.67	47.88	373.82	0.11	216.67	48.75	376.16	0.11	216.67	40.91	309.94
J43	0.11	216.67	46.59	359.27	0.11	216.67	47.46	361.70	0.11	216.67	39.67	301.38
J44	0.11	216.67	45.81	350.00	0.11	216.67	46.68	352.47	0.11	216.67	38.93	295.98
J45	0.11	216.67	44.55	338.33	0.11	216.67	45.42	340.84	0.11	216.67	37.72	288.65
J46	0.11	216.67	54.56	495.21	0.11	216.67	35.64	272.66	0.11	216.67	55.10	511.77
J48	0.11	216.67	54.02	480.52	0.11	216.67	37.88	284.45	0.11	216.67	54.64	498.01
J50	0.11	216.67	46.45	355.53	0.11	216.67	33.28	261.60	0.11	216.67	47.14	363.56
J51	0.11	216.67	46.11	351.01	0.11	216.67	33.37	261.82	0.11	216.67	46.81	358.81
J52	0.11	216.67	42.54	318.55	0.11	216.67	35.35	270.96	0.11	216.67	43.44	326.07
J53	0.11	216.67	41.84	312.72	0.11	216.67	34.97	268.96	0.11	216.67	42.74	319.86
J55	0.11	216.67	43.62	325.15	0.11	216.67	42.52	311.99	0.11	216.67	44.61	334.02
J56	0.11	216.67	39.41	295.12	0.11	216.67	39.85	294.68	0.11	216.67	39.07	293.58
J57	0.11	216.67	41.51	308.93	0.11	216.67	41.98	308.28	0.11	216.67	41.00	306.16
J58	0.11	216.67	40.20	300.26	0.11	216.67	40.71	300.08	0.11	216.67	39.55	296.72
J59	0.11	216.67	36.67	279.29	0.11	216.67	37.35	280.58	0.11	216.67	35.15	271.93
J60	0.11	216.67	32.74	259.77	0.11	216.67	33.43	261.28	0.11	216.67	31.21	253.61
J61	0.11	216.67	32.34	258.18	0.11	216.67	33.03	259.71	0.11	216.67	30.80	252.06
J62	0.11	216.67	36.42	277.96	0.11	216.67	37.11	279.30	0.11	216.67	34.85	270.43
J63	0.11	216.67	36.97	280.82	0.11	216.67	37.71	282.43	0.11	216.67	34.76	270.00
J64	0.11	216.67	33.49	263.19	0.11	216.67	34.24	264.95	0.11	216.67	31.27	253.99
J65	0.11	216.67	33.57	263.56	0.11	216.67	34.32	265.32	0.11	216.67	31.34	254.29
J66	0.11	216.67	37.79	285.60	0.11	216.67	38.54	287.19	0.11	216.67	35.52	273.99
J67	0.11	216.67	38.56	289.97	0.11	216.67	39.36	291.83	0.11	216.67	35.65	274.59
J68	0.11	216.67	34.09	265.89	0.11	216.67	34.89	267.89	0.11	216.67	31.16	253.55
J69	0.11	216.67	34.13	266.27	0.11	216.67	34.92	268.27	0.11	216.67	31.18	253.79
J70	0.11	216.67	37.62	284.82	0.11	216.67	38.42	286.74	0.11	216.67	34.64	269.79
J71	0.11	216.67

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Table C-5: Model Results - AVDY+FF (Reliability Analysis Scenarios 4 to 5)

	Break Scenario 4				Break Scenario 5			
Junction ID	**Base Demand (L/s)**	**Required Fire Flow (L/s)**	**Residual Pressure (psi)**	**Available Fire Flow @ Residual 20 psi (L/s)**	**Base Demand (L/s)**	**Required Fire Flow (L/s)**	**Residual Pressure (psi)**	**Available Fire Flow @ Residual 20 psi (L/s)**
Maximum	*0.15*	*216.67*	*59.58*	*658.81*	*0.15*	*216.67*	*59.58*	*658.83*
Minimum	*0.00*	*216.67*	*-12.56*	*161.32*	*0.00*	*216.67*	*-1.27*	*175.86*
J01	0.07	216.67	57.58	594.76	0.07	216.67	57.58	594.77
J02	0.00	216.67	58.54	622.33	0.00	216.67	58.54	622.35
J05	0.07	216.67	59.50	658.52	0.07	216.67	59.50	658.54
J06	0.07	216.67	59.58	658.81	0.07	216.67	59.58	658.83
J07	0.11	216.67	59.32	636.57	0.11	216.67	59.32	636.59
J08	0.11	216.67	58.78	614.73	0.11	216.67	58.78	614.75
J09	0.11	216.67	58.06	601.57	0.11	216.67	58.06	601.58
J10	0.11	216.67	58.17	597.16	0.11	216.67	58.17	597.17
J100	0.15	216.67	50.47	403.99	0.15	216.67	50.47	404.02
J101	0.15	216.67	55.79	520.05	0.15	216.67	55.80	520.22
J102	0.15	216.67	55.61	517.94	0.15	216.67	55.63	518.19
J103	0.15	216.67	49.91	396.85	0.15	216.67	49.91	396.88
J109	0.11	216.67	53.32	457.86	0.11	216.67	53.45	459.21
J11	0.11	216.67	58.03	596.05	0.11	216.67	58.03	596.06
J110	0.11	216.67	53.51	458.73	0.11	216.67	53.57	459.36
J111	0.11	216.67	54.11	470.95	0.11	216.67	54.07	470.41
J112	0.11	216.67	48.97	381.19	0.11	216.67	48.78	379.79
J113	0.11	216.67	40.89	304.72	0.11	216.67	40.66	303.63
J114	0.11	216.67	39.66	296.94	0.11	216.67	39.42	295.83
J115	0.11	216.67	42.18	314.79	0.11	216.67	41.93	313.48
J116	0.11	216.67	44.94	337.90	0.11	216.67	44.67	336.33
J117	0.11	216.67	43.27	322.71	0.11	216.67	43.02	321.32
J118	0.11	216.67	47.82	366.80	0.11	216.67	47.57	365.11
J119	0.11	216.67	48.96	380.02	0.11	216.67	48.67	377.86
J12	0.11	216.67	58.34	619.64	0.11	216.67	58.34	619.65
J120	0.11	216.67	47.58	363.15	0.11	216.67	47.27	361.08
J121	0.11	216.67	44.90	336.80	0.11	216.67	44.60	335.07
J122	0.11	216.67	38.48	289.58	0.11	216.67	38.16	288.15
J123	0.11	216.67	38.54	289.57	0.11	216.67	38.18	288.00
J124	0.11	216.67	45.01	337.21	0.11	216.67	44.61	334.82
J125	0.11	216.67	42.46	314.96	0.11	216.67	42.11	313.19
J129	0.11	216.67	38.14	285.65	0.11	216.67	38.03	285.16
J130	0.11	216.67	41.73	309.08	0.11	216.67	41.63	308.58
J131	0.11	216.67	38.22	286.31	0.11	216.67	38.09	285.76
J132	0.11	216.67	41.62	308.49	0.11	216.67	41.48	307.77
J133	0.11	216.67	41.13	304.88	0.11	216.67	40.81	303.32
J134	0.11	216.67	38.04	285.23	0.11	216.67	37.71	283.81
J135	0.11	216.67	38.44	287.30	0.11	216.67	38.09	285.80
J136	0.11	216.67	40.34	299.28	0.11	216.67	39.98	297.61
J15	0.07	216.67	57.84	581.27	0.07	216.67	57.85	581.29
J152	0.11	216.67	54.71	469.88	0.11	216.67	54.71	469.89
J153	0.15	216.67	54.89	496.54	0.15	216.67	54.89	496.58
J154	0.11	216.67	51.81	421.61	0.11	216.67	51.50	418.89
J155	0.11	216.67	50.67	401.74	0.11	216.67	50.26	398.43
J156	0.00	216.67	47.04	357.02	0.00	216.67	46.34	352.46
J158	0.00	216.67	57.12	540.57	0.00	216.67	57.11	540.54
J16	0.07	216.67	57.73	571.92	0.07	216.67	57.73	571.94
J162	0.00	216.67	53.52	463.80	0.00	216.67	53.65	465.20
J164	0.00	216.67	51.72	427.18	0.00	216.67	52.00	429.77
J166	0.00	216.67	46.21	353.65	0.00	216.67	46.89	358.19
J168	0.00	216.67	42.81	321.07	0.00	216.67	43.77	326.41
J17	0.07	216.67	57.18	556.73	0.07	216.67	57.18	556.75
J170	0.00	216.67	37.04	283.61	0.00	216.67	38.40	289.72
J172	0.00	216.67	54.14	478.00	0.00	216.67	54.23	479.02
J174	0.15	216.67	55.58	513.49	0.15	216.67	55.62	513.98
J176	0.15	216.67	55.46	506.60	0.15	216.67	55.48	506.74
J178	0.08	216.67	56.27	525.30	0.08	216.67	56.26	525.19
J18	0.07	216.67	57.26	568.56	0.07	216.67	57.26	568.59
J180	0.08	216.67	56.39	522.76	0.08	216.67	56.39	522.69
J182	0.08	216.67	56.96	537.38	0.08	216.67	56.96	537.33
J184	0.08	216.67	57.55	555.84	0.08	216.67	57.54	555.79
J186	0.08	216.67	56.52	537.40	0.08	216.67	56.51	537.26
J188	0.00	216.67	53.31	458.82	0.00	216.67	53.46	460.47
J19	0.10	216.67	56.16	533.84	0.10	216.67	56.16	533.86
J20	0.10	216.67	56.97	549.30	0.10	216.67	56.97	549.31
J201	0.11	216.67	33.11	262.27	0.11	216.67	37.43	284.03
J203	0.11	216.67	31.53	255.43	0.11	216.67	37.70	285.79
J205	0.11	216.67	30.38	250.79	0.11	216.67	37.47	284.70
J207	0.11	216.67	29.68	247.56	0.11	216.67	41.61	309.76
J209	0.11	216.67	29.74	247.96	0.11	216.67	40.09	299.95
J21	0.10	216.67	56.38	532.99	0.10	216.67	56.38	533.01
J211	0.11	216.67	29.50	247.12	0.11	216.67	38.83	292.25
J213	0.11	216.67	27.08	238.30	0.11	216.67	35.59	274.11
J215	0.11	216.67	26.90	237.72	0.11	216.67	34.84	270.47
J217	0.11	216.67	29.70	247.72	0.11	216.67	37.80	285.59
J219	0.11	216.67	23.96	228.09	0.11	216.67	32.24	258.14
J22	0.10	216.67	57.18	560.84	0.10	216.67	57.18	560.85
J221	0.11	216.67	27.98	242.02	0.11	216.67	36.53	280.64
J223	0.11	216.67	28.54	243.97	0.11	216.67	36.82	281.91
J225	0.11	216.67	29.06	245.74	0.11	216.67	37.04	282.55
J227	0.11	216.67	22.52	223.85	0.11	216.67	30.93	253.03
J229	0.11	216.67	24.16	228.40	0.11	216.67	32.10	256.34
J23	0.10	216.67	56.68	538.08	0.10	216.67	56.68	538.09
J231	0.11	216.67	29.15	246.09	0.11	216.67	36.49	279.54
J233	0.11	216.67	29.15	246.19	0.11	216.67	36.73	281.10
J235	0.11	216.67	21.86	221.90	0.11	216.67	29.83	248.43
J237	0.11	216.67	17.82	211.18	0.11	216.67	25.80	233.91
J239	0.11	216.67	13.59	201.44	0.11	216.67	21.56	221.03
J24	0.10	216.67	56.14	516.98	0.10	216.67	56.14	516.99
J241	0.11	216.67	17.89	211.38	0.11	216.67	25.87	234.10
J243	0.11	216.67	25.17	232.26	0.11	216.67	32.72	261.60
J245	0.11	216.67	28.54	243.68	0.11	216.67	37.38	284.26
J247	0.11	216.67	26.59	236.98	0.11	216.67	34.15	268.05
J249	0.11	216.67	28.06	242.20	0.11	216.67	35.55	275.02
J25	0.10	216.67	55.75	507.61	0.10	216.67	55.75	507.62
J251	0.11	216.67	27.09	238.76	0.11	216.67	34.57	270.15
J253	0.11	216.67	23.29	226.24	0.11	216.67	30.76	252.80
J255	0.11	216.67	27.53	240.14	0.11	216.67	34.94	271.46
J257	0.11	216.67	27.58	240.35	0.11	216.67	34.88	271.36
J259	0.11	216.67	18.58	213.06	0.11	216.67	25.96	234.66
J26	0.10	216.67	55.77	505.95	0.10	216.67	55.77	505.96
J261	0.11	216.67	19.80	216.23	0.11	216.67	27.20	239.06
J263	0.11	216.67	25.01	231.90	0.11	216.67	32.46	260.88
J265	0.11	216.67	26.02	234.98	0.11	216.67	33.47	264.61
J267	0.11	216.67	26.40	236.22	0.11	216.67	33.83	266.23
J269	0.11	216.67	20.04	216.89	0.11	216.67	27.50	240.25
J27	0.10	216.67	56.06	511.26	0.10	216.67	56.06	511.27
J271	0.11	216.67	19.68	215.92	0.11	216.67	27.14	239.02
J273	0.11	216.67	26.63	237.21	0.11	216.67	34.10	268.05
J275	0.11	216.67	26.46	236.64	0.11	216.67	33.93	267.34
J277	0.11	216.67	26.31	236.19	0.11	216.67	33.78	266.81
J279	0.11	216.67	25.06	231.99	0.11	216.67	32.53	260.95
J28	0.10	216.67	55.88	507.38	0.10	216.67	55.88	507.39
J281	0.11	216.67	24.73	230.92	0.11	216.67	32.19	259.51
J283	0.11	216.67	20.29	217.54	0.11	216.67	27.76	240.10
J285	0.11	216.67	17.77	210.89	0.11	216.67	25.23	232.57
J287	0.11	216.67	21.75	221.74	0.11	216.67	29.22	247.10
J289	0.11	216.67	18.97	214.01	0.11	216.67	26.43	236.58
J29	0.10	216.67	55.98	510.34	0.10	216.67	55.98	510.36
J291	0.11	216.67	25.02	231.93	0.11	216.67	32.50	261.14
J293	0.11	216.67	25.28	232.72	0.11	216.67	32.75	262.04
J295	0.11	216.67	24.67	230.80	0.11	216.67	32.16	259.67
J297	0.11	216.67	19.63	215.78	0.11	216.67	27.11	239.00
J299	0.11	216.67	24.11	228.91	0.11	216.67	31.59	256.74
J30	0.07	216.67	56.31	522.05	0.07	216.67	56.31	522.06
J301	0.11	216.67	18.68	213.27	0.11	216.67	26.15	235.47
J303	0.00	216.67	24.30	229.52	0.00	216.67	31.80	258.00
J305	0.00	216.67	23.57	227.13	0.00	216.67	31.08	254.64
J307	0.11	216.67	23.42	226.77	0.11	216.67	30.93	254.06
J309	0.11	216.67	14.68	203.48	0.11	216.67	22.20	223.01
J31	0.07	216.67	56.52	525.20	0.07	216.67	56.52	525.21
J311	0.11	216.67	22.40	223.68	0.11	216.67	29.92	249.98
J313	0.11	216.67	12.56	198.81	0.11	216.67	20.08	217.01
J315	0.11	216.67	22.78	224.78	0.11	216.67	30.30	251.36
J317	0.11	216.67	21.88	222.10	0.11	216.67	29.40	247.74
J319	0.11	216.67	21.65	221.40	0.11	216.67	29.18	246.62
J32	0.07	216.67	56.81	537.32	0.07	216.67	56.81	537.34
J321	0.11	216.67	22.62	224.24	0.11	216.67	30.16	250.34
J323	0.11	216.67	22.06	222.61	0.11	216.67	29.58	248.32
J325	0.11	216.67	21.78	221.80	0.11	216.67	29.32	247.13
J327	0.11	216.67	21.22	220.17	0.11	216.67	28.75	244.90
J329	0.11	216.67	19.29	214.88	0.11	216.67	26.83	237.74
J33	0.07	216.67	57.38	560.81	0.07	216.67	57.38	560.82
J331	0.11	216.67	20.50	218.14	0.11	216.67	28.04	242.00
J333	0.11	216.67	24.40	229.62	0.11	216.67	31.95	257.50
J335	0.11	216.67	23.38	226.49	0.11	216.67	30.92	253.31
J337	0.11	216.67	22.94	225.16	0.11	216.67	30.47	251.56
J339	0.11	216.67	22.35	223.39	0.11	216.67	29.89	248.97
J34	0.07	216.67	57.91	575.62	0.07	216.67	57.91	575.64
J341	0.11	216.67	22.09	222.60	0.11	216.67	29.62	247.85
J343	0.11	216.67	16.29	207.41	0.11	216.67	23.82	227.76
J345	0.11	216.67	19.59	215.69	0.11	216.67	27.12	238.57
J347	0.11	216.67	17.55	210.51	0.11	216.67	25.09	231.68
J349	0.11	216.67	16.92	208.98	0.11	216.67	24.46	229.62
J35	0.07	216.67	58.18	588.65	0.07	216.67	58.19	588.66
J351	0.11	216.67	17.55	210.52	0.11	216.67	25.08	231.56
J353	0.11	216.67	19.43	215.28	0.11	216.67	26.97	237.89
J355	0.11	216.67	14.64	203.68	0.11	216.67	22.18	222.81
J357	0.11	216.67	21.99	222.30	0.11	216.67	29.53	247.35
J359	0.11	216.67	21.39	220.60	0.11	216.67	28.92	245.18
J36	0.07	216.67	58.93	618.89	0.07	216.67	58.93	618.91
J361	0.11	216.67	21.44	220.77	0.11	216.67	28.98	245.49
J363	0.11	216.67	-8.97	165.39	0.11	216.67	2.01	180.66
J365	0.11	216.67	-12.56	161.32	0.11	216.67	-1.27	175.86
J367	0.11	216.67	29.65	247.64	0.11	216.67	39.65	297.23
J369	0.11	216.67	-0.24	176.16	0.11	216.67	7.19	188.53
J37	0.08	216.67	56.94	554.56	0.08	216.67	56.94	554.56
J371	0.11	216.67	23.56	227.11	0.11	216.67	30.99	253.86
J38	0.08	216.67	57.19	560.11	0.08	216.67	57.19	560.10
J39	0.08	216.67	56.78	545.53	0.08	216.67	56.78	545.50
J40	0.11	216.67	58.20	610.92	0.11	216.67	58.20	610.93
J41	0.11	216.67	55.31	499.26	0.11	216.67	55.26	498.61
J42	0.11	216.67	54.70	482.46	0.11	216.67	54.61	481.50
J43	0.11	216.67	53.05	446.61	0.11	216.67	52.86	444.68
J44	0.11	216.67	51.53	416.27	0.11	216.67	51.19	413.37
J45	0.11	216.67	48.36	371.96	0.11	216.67	47.77	367.78
J46	0.11	216.67	58.10	603.33	0.11	216.67	58.10	603.33
J48	0.11	216.67	58.03	597.57	0.11	216.67	58.03	597.58
J50	0.11	216.67	50.93	407.64	0.11	216.67	50.93	407.65
J51	0.11	216.67	50.63	401.45	0.11	216.67	50.63	401.45
J52	0.11	216.67	48.26	369.00	0.11	216.67	48.26	369.00
J53	0.11	216.67	47.58	360.51	0.11	216.67	47.58	360.52
J55	0.11	216.67	50.81	396.87	0.11	216.67	50.81	396.87
J56	0.11	216.67	46.74	349.26	0.11	216.67	46.74	349.26
J57	0.11	216.67	48.83	371.15	0.11	216.67	48.83	371.15
J58	0.11	216.67	47.50	357.09	0.11	216.67	47.50	357.10
J59	0.11	216.67	43.81	323.53	0.11	216.67	43.82	323.53
J60	0.11	216.67	39.89	295.05	0.11	216.67	39.89	295.05
J61	0.11	216.67	39.48	292.92	0.11	216.67	39.49	292.92
J62	0.11	216.67	43.56	321.49	0.11	216.67	43.56	321.49
J63	0.11	216.67	43.99	324.77	0.11	216.67	43.99	324.78
J64	0.11	216.67	40.51	299.17	0.11	216.67	40.51	299.18
J65	0.11	216.67	40.59	299.67	0.11	216.67	40.60	299.67
J66	0.11	216.67	44.81	331.87	0.11	216.67	44.81	331.87
J67	0.11	216.67	45.45	337.24	0.11	216.67	45.45	337.25
J68	0.11	216.67	40.97	302.04	0.11	216.67	40.97	302.04
J69	0.11	216.67	41.01	302.69	0.11	216.67	41.01	302.70
J70	0.11	216.67	44.49	329.66	0.11	216.67	44.49	329.67
J71	0.11	216.67	45.01	334.43	0.11	216.67	45.01	334.44
J72	0.11	216.67	41.40	305.76	0.11	216.67	41.40	305.77
J73	0.11	216.67	41.58	306.65	0.11	216.67	41.59	306.65
J74	0.11	216.67	44.84	332.35	0.11	216.67	44.84	332.35
J75	0.10	216.67	47.72	362.93	0.10	216.67	47.72	362.93
J76	0.10	216.67	52.17	424.18	0.10	216.67	52.17	424.19
J77	0.10	216.67	46.94	354.97	0.10	216.67	46.94	354.98
J78	0.07	216.67	52.51	431.52	0.07	216.67	52.51	431.53
J79	0.07	216.67	48.92	375.89	0.07	216.67	48.92	375.90
J80	0.15	216.67	44.78	335.16	0.15	216.67	44.78	335.18
J81	0.15	216.67	55.31	508.75	0.15	216.67	55.32	508.88
J82	0.15	216.67	54.73	490.98	0.15	216.67	54.74	491.07
J83	0.15	216.67	55.51	508.04	0.15	216.67	55.51	508.09
J84	0.15	216.67	55.56	512.41	0.15	216.67	55.56	512.44
J85	0.15	216.67	38.73	290.34	0.15	216.67	38.73	290.35
J86	0.15	216.67	35.05	270.05	0.15	216.67	35.06	270.06
J87	0.15	216.67	35.06	270.16	0.15	216.67	35.06	270.17
J88	0.15	216.67	39.15	292.85	0.15	216.67	39.16	292.86
J89	0.15	216.67	56.38	535.81	0.15	216.67	56.38	535.85
J90	0.15	216.67	48.04	369.70	0.15	216.67	48.04	369.72
J91	0.15	216.67	54.81	485.70	0.15	216.67	54.82	485.73
J92	0.15	216.67	44.44	332.05	0.15	216.67	44.45	332.07
J93	0.15	216.67	41.41	308.37	0.15	216.67	41.41	308.39
J94	0.08	216.67	55.84	506.78	0.08	216.67	55.84	506.76
J95	0.08	216.67	56.04	507.16	0.08	216.67	56.04	507.14
J96	0.08	216.67	56.53	525.04	0.08	216.67	56.53	525.02
J97	0.08	216.67	47.20	356.64	0.08	216.67	47.20	356.62
J98	0.00	216.67	56.72	532.70	0.00	216.67	56.72	532.67

Sufficient hydrant coverage to meet the RFF.

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Table C-6: Model Results - AVDY+FF (Reliability Analysis Scenarios 6 to 7)

	Break Scenario 6				Break Scenario 7			
Junction ID	**Base Demand (L/s)**	**Required Fire Flow (L/s)**	**Residual Pressure (psi)**	**Available Fire Flow @ Residual 20 psi (L/s)**	**Base Demand (L/s)**	**Required Fire Flow (L/s)**	**Residual Pressure (psi)**	**Available Fire Flow @ Residual 20 psi (L/s)**
Maximum	*0.15*	*216.67*	*59.58*	*658.83*	*0.15*	*216.67*	*59.58*	*658.83*
Minimum	*0.00*	*216.67*	*7.91*	*190.81*	*0.00*	*216.67*	*7.91*	*190.80*
J01	0.07	216.67	57.58	594.77	0.07	216.67	57.58	594.77
J02	0.00	216.67	58.54	622.35	0.00	216.67	58.54	622.35
J05	0.07	216.67	59.50	658.54	0.07	216.67	59.50	658.54
J06	0.07	216.67	59.58	658.83	0.07	216.67	59.58	658.83
J07	0.11	216.67	59.32	636.59	0.11	216.67	59.32	636.59
J08	0.11	216.67	58.78	614.75	0.11	216.67	58.78	614.75
J09	0.11	216.67	58.06	601.58	0.11	216.67	58.06	601.58
J10	0.11	216.67	58.17	597.17	0.11	216.67	58.17	597.17
J100	0.15	216.67	50.47	404.04	0.15	216.67	50.47	404.04
J101	0.15	216.67	55.80	520.48	0.15	216.67	55.80	520.48
J102	0.15	216.67	55.64	518.66	0.15	216.67	55.64	518.66
J103	0.15	216.67	49.91	396.89	0.15	216.67	49.91	396.89
J109	0.11	216.67	53.73	466.34	0.11	216.67	53.73	466.34
J11	0.11	216.67	58.03	596.06	0.11	216.67	58.03	596.06
J110	0.11	216.67	53.62	460.95	0.11	216.67	53.62	460.95
J111	0.11	216.67	54.15	472.16	0.11	216.67	54.15	472.16
J112	0.11	216.67	49.45	387.99	0.11	216.67	49.45	387.99
J113	0.11	216.67	41.51	309.33	0.11	216.67	41.51	309.33
J114	0.11	216.67	40.36	301.73	0.11	216.67	40.36	301.73
J115	0.11	216.67	42.96	321.10	0.11	216.67	42.96	321.10
J116	0.11	216.67	45.78	346.40	0.11	216.67	45.78	346.40
J117	0.11	216.67	44.07	329.66	0.11	216.67	44.07	329.66
J118	0.11	216.67	48.56	376.40	0.11	216.67	48.56	376.40
J119	0.11	216.67	50.01	395.10	0.11	216.67	50.01	395.10
J12	0.11	216.67	58.34	619.65	0.11	216.67	58.34	619.65
J120	0.11	216.67	48.67	376.87	0.11	216.67	48.67	376.87
J121	0.11	216.67	45.91	346.95	0.11	216.67	45.91	346.95
J122	0.11	216.67	39.64	296.97	0.11	216.67	39.64	296.97
J123	0.11	216.67	39.88	298.17	0.11	216.67	39.88	298.17
J124	0.11	216.67	46.71	354.53	0.11	216.67	46.71	354.53
J125	0.11	216.67	43.75	325.52	0.11	216.67	43.75	325.52
J129	0.11	216.67	38.37	287.02	0.11	216.67	38.37	287.02
J130	0.11	216.67	41.92	310.53	0.11	216.67	41.92	310.53
J131	0.11	216.67	38.49	287.94	0.11	216.67	38.49	287.94
J132	0.11	216.67	41.95	310.99	0.11	216.67	41.95	310.99
J133	0.11	216.67	42.38	314.11	0.11	216.67	42.38	314.11
J134	0.11	216.67	39.34	293.10	0.11	216.67	39.34	293.09
J135	0.11	216.67	39.82	295.81	0.11	216.67	39.82	295.81
J136	0.11	216.67	41.79	309.43	0.11	216.67	41.79	309.43
J15	0.07	216.67	57.85	581.29	0.07	216.67	57.85	581.29
J152	0.11	216.67	54.71	469.89	0.11	216.67	54.71	469.89
J153	0.15	216.67	54.89	496.60	0.15	216.67	54.89	496.60
J154	0.11	216.67	52.97	444.47	0.11	216.67	52.97	444.47
J155	0.11	216.67	52.47	433.48	0.11	216.67	52.47	433.48
J156	0.00	216.67	51.18	414.23	0.00	216.67	51.18	414.23
J158	0.00	216.67	57.12	540.58	0.00	216.67	57.12	540.58
J16	0.07	216.67	57.73	571.95	0.07	216.67	57.73	571.95
J162	0.00	216.67	53.95	473.27	0.00	216.67	53.95	473.27
J164	0.00	216.67	53.05	452.02	0.00	216.67	53.05	452.02
J166	0.00	216.67	50.91	414.59	0.00	216.67	50.91	414.59
J168	0.00	216.67	50.35	402.81	0.00	216.67	50.35	402.82
J17	0.07	216.67	57.18	556.75	0.07	216.67	57.18	556.75
J170	0.00	216.67	49.17	390.89	0.00	216.67	49.17	390.90
J172	0.00	216.67	54.39	483.82	0.00	216.67	54.39	483.82
J174	0.15	216.67	55.66	515.40	0.15	216.67	55.66	515.40
J176	0.15	216.67	55.48	506.93	0.15	216.67	55.48	506.93
J178	0.08	216.67	56.27	525.39	0.08	216.67	56.27	525.39
J18	0.07	216.67	57.26	568.59	0.07	216.67	57.26	568.59
J180	0.08	216.67	56.39	522.81	0.08	216.67	56.39	522.81
J182	0.08	216.67	56.96	537.41	0.08	216.67	56.96	537.41
J184	0.08	216.67	57.55	555.85	0.08	216.67	57.55	555.85
J186	0.08	216.67	56.52	537.56	0.08	216.67	56.52	537.56
J188	0.00	216.67	53.88	471.10	0.00	216.67	53.88	471.11
J19	0.10	216.67	56.16	533.87	0.10	216.67	56.16	533.87
J20	0.10	216.67	56.97	549.32	0.10	216.67	56.97	549.32
J201	0.11	216.67	49.91	393.92	0.11	216.67	49.91	393.93
J203	0.11	216.67	49.27	385.88	0.11	216.67	49.28	385.89
J205	0.11	216.67	48.54	377.03	0.11	216.67	48.54	377.04
J207	0.11	216.67	50.60	400.47	0.11	216.67	50.60	400.47
J209	0.11	216.67	49.73	389.88	0.11	216.67	49.72	389.88
J21	0.10	216.67	56.38	533.00	0.10	216.67	56.38	533.00
J211	0.11	216.67	48.81	378.64	0.11	216.67	48.81	378.63
J213	0.11	216.67	45.84	345.83	0.11	216.67	45.84	345.82
J215	0.11	216.67	45.39	341.85	0.11	216.67	45.39	341.85
J217	0.11	216.67	48.20	369.60	0.11	216.67	48.20	369.60
J219	0.11	216.67	42.48	316.07	0.11	216.67	42.48	316.07
J22	0.10	216.67	57.18	560.84	0.10	216.67	57.18	560.84
J221	0.11	216.67	46.78	360.47	0.11	216.67	46.77	360.45
J223	0.11	216.67	47.19	364.03	0.11	216.67	47.19	364.01
J225	0.11	216.67	47.58	366.34	0.11	216.67	47.57	366.31
J227	0.11	216.67	41.26	308.50	0.11	216.67	41.25	308.49
J229	0.11	216.67	42.67	313.58	0.11	216.67	42.67	313.57
J23	0.10	216.67	56.68	538.09	0.10	216.67	56.68	538.09
J231	0.11	216.67	47.40	364.60	0.11	216.67	47.40	364.59
J233	0.11	216.67	47.47	366.19	0.11	216.67	47.47	366.14
J235	0.11	216.67	40.37	301.62	0.11	216.67	40.36	301.60
J237	0.11	216.67	36.33	277.40	0.11	216.67	36.33	277.38
J239	0.11	216.67	32.10	257.07	0.11	216.67	32.09	257.05
J24	0.10	216.67	56.14	516.99	0.10	216.67	56.14	516.99
J241	0.11	216.67	36.41	277.56	0.11	216.67	36.40	277.54
J243	0.11	216.67	40.06	301.83	0.11	216.67	39.87	300.87
J245	0.11	216.67	47.51	364.84	0.11	216.67	47.51	364.82
J247	0.11	216.67	43.39	326.47	0.11	216.67	43.28	325.84
J249	0.11	216.67	46.08	351.83	0.11	216.67	46.11	352.07
J25	0.10	216.67	55.75	507.62	0.10	216.67	55.75	507.62
J251	0.11	216.67	44.65	338.40	0.11	216.67	44.72	338.80
J253	0.11	216.67	40.70	306.15	0.11	216.67	40.77	306.52
J255	0.11	216.67	45.44	344.06	0.11	216.67	45.48	344.31
J257	0.11	216.67	45.56	345.86	0.11	216.67	45.59	346.07
J259	0.11	216.67	36.39	278.69	0.11	216.67	36.44	278.89
J26	0.10	216.67	55.77	505.96	0.10	216.67	55.77	505.96
J261	0.11	216.67	37.40	284.80	0.11	216.67	37.46	285.08
J263	0.11	216.67	42.33	320.72	0.11	216.67	42.41	321.16
J265	0.11	216.67	43.45	327.00	0.11	216.67	43.52	327.41
J267	0.11	216.67	44.00	331.42	0.11	216.67	44.07	331.78
J269	0.11	216.67	37.46	285.63	0.11	216.67	37.54	285.95
J27	0.10	216.67	56.06	511.27	0.10	216.67	56.06	511.27
J271	0.11	216.67	36.90	282.61	0.11	216.67	36.98	282.97
J273	0.11	216.67	43.96	332.69	0.11	216.67	44.04	333.15
J275	0.11	216.67	43.54	329.38	0.11	216.67	43.63	329.92
J277	0.11	216.67	43.03	325.49	0.11	216.67	43.14	326.11
J279	0.11	216.67	41.91	316.53	0.11	216.67	42.01	317.09
J28	0.10	216.67	55.88	507.39	0.10	216.67	55.88	507.39
J281	0.11	216.67	41.74	315.60	0.11	216.67	41.84	316.11
J283	0.11	216.67	37.12	280.00	0.11	216.67	37.22	280.44
J285	0.11	216.67	34.45	270.02	0.11	216.67	34.56	270.49
J287	0.11	216.67	38.20	291.31	0.11	216.67	38.33	291.90
J289	0.11	216.67	35.69	276.19	0.11	216.67	35.80	276.66
J29	0.10	216.67	55.98	510.35	0.10	216.67	55.98	510.35
J291	0.11	216.67	40.49	306.79	0.11	216.67	40.66	307.64
J293	0.11	216.67	41.52	313.71	0.11	216.67	41.66	314.43
J295	0.11	216.67	39.02	296.81	0.11	216.67	39.23	297.81
J297	0.11	216.67	35.64	276.02	0.11	216.67	35.79	276.64
J299	0.11	216.67	40.86	308.60	0.11	216.67	40.97	309.16
J30	0.07	216.67	56.31	522.06	0.07	216.67	56.31	522.06
J301	0.11	216.67	35.88	276.68	0.11	216.67	35.97	277.04
J303	0.00	216.67	37.90	289.66	0.00	216.67	38.14	290.76
J305	0.00	216.67	33.99	267.71	0.00	216.67	19.82	216.18
J307	0.11	216.67	32.59	261.06	0.11	216.67	21.32	220.44
J309	0.11	216.67	22.74	224.59	0.11	216.67	15.43	205.34
J31	0.07	216.67	56.52	525.21	0.07	216.67	56.52	525.21
J311	0.11	216.67	29.13	246.55	0.11	216.67	23.35	226.46
J313	0.11	216.67	19.34	215.02	0.11	216.67	14.94	204.23
J315	0.11	216.67	27.05	238.66	0.11	216.67	26.28	235.91
J317	0.11	216.67	25.20	232.33	0.11	216.67	26.41	236.38
J319	0.11	216.67	23.66	227.32	0.11	216.67	27.59	240.41
J32	0.07	216.67	56.81	537.34	0.07	216.67	56.81	537.34
J321	0.11	216.67	23.11	225.61	0.11	216.67	29.86	248.81
J323	0.11	216.67	25.68	233.85	0.11	216.67	26.60	236.94
J325	0.11	216.67	23.36	226.40	0.11	216.67	28.48	243.64
J327	0.11	216.67	21.49	220.89	0.11	216.67	29.02	245.66
J329	0.11	216.67	18.25	212.24	0.11	216.67	28.42	243.27
J33	0.07	216.67	57.38	550.82	0.07	216.67	57.38	550.82
J331	0.11	216.67	18.44	212.72	0.11	216.67	30.29	250.33
J333	0.11	216.67	20.57	218.32	0.11	216.67	34.92	270.89
J335	0.11	216.67	22.83	224.72	0.11	216.67	31.51	255.45
J337	0.11	216.67	22.96	225.15	0.11	216.67	30.58	251.67
J339	0.11	216.67	22.16	222.77	0.11	216.67	30.33	250.40
J34	0.07	216.67	57.91	575.64	0.07	216.67	57.91	575.64
J341	0.11	216.67	21.96	222.17	0.11	216.67	30.02	249.11
J343	0.11	216.67	16.18	207.26	0.11	216.67	24.09	228.47
J345	0.11	216.67	19.44	215.31	0.11	216.67	27.54	239.83
J347	0.11	216.67	17.41	210.22	0.11	216.67	25.50	232.87
J349	0.11	216.67	16.78	208.73	0.11	216.67	24.86	230.79
J35	0.07	216.67	58.18	588.66	0.07	216.67	58.18	588.66
J351	0.11	216.67	17.41	210.25	0.11	216.67	25.49	232.73
J353	0.11	216.67	19.30	214.96	0.11	216.67	27.36	239.07
J355	0.11	216.67	14.50	203.49	0.11	216.67	22.59	223.94
J357	0.11	216.67	21.91	222.02	0.11	216.67	29.86	248.36
J359	0.11	216.67	21.40	220.60	0.11	216.67	29.10	245.59
J36	0.07	216.67	58.93	618.91	0.07	216.67	58.93	618.91
J361	0.11	216.67	21.56	221.07	0.11	216.67	29.00	245.30
J363	0.11	216.67	11.36	197.23	0.11	216.67	11.36	197.23
J365	0.11	216.67	7.91	190.81	0.11	216.67	7.91	190.80
J367	0.11	216.67	49.41	386.04	0.11	216.67	49.41	386.03
J369	0.11	216.67	17.18	209.60	0.11	216.67	17.26	209.79
J37	0.08	216.67	56.94	554.56	0.08	216.67	56.94	554.56
J371	0.11	216.67	40.98	308.52	0.11	216.67	41.06	308.89
J38	0.08	216.67	57.19	560.10	0.08	216.67	57.19	560.10
J39	0.08	216.67	56.78	545.53	0.08	216.67	56.78	545.53
J40	0.11	216.67	58.20	610.93	0.11	216.67	58.20	610.93
J41	0.11	216.67	55.38	501.51	0.11	216.67	55.38	501.51
J42	0.11	216.67	54.84	486.81	0.11	216.67	54.84	486.81
J43	0.11	216.67	53.60	459.18	0.11	216.67	53.60	459.18
J44	0.11	216.67	52.86	441.74	0.11	216.67	52.86	441.74
J45	0.11	216.67	51.64	421.27	0.11	216.67	51.64	421.27
J46	0.11	216.67	58.10	603.33	0.11	216.67	58.10	603.33
J48	0.11	216.67	58.03	597.57	0.11	216.67	58.03	597.57
J50	0.11	216.67	50.93	407.65	0.11	216.67	50.93	407.65
J51	0.11	216.67	50.63	401.45	0.11	216.67	50.63	401.45
J52	0.11	216.67	48.26	369.00	0.11	216.67	48.26	369.00
J53	0.11	216.67	47.58	360.52	0.11	216.67	47.58	360.52
J55	0.11	216.67	50.81	396.87	0.11	216.67	50.81	396.87
J56	0.11	216.67	46.74	349.26	0.11	216.67	46.74	349.26
J57	0.11	216.67	48.83	371.15	0.11	216.67	48.83	371.15
J58	0.11	216.67	47.50	357.10	0.11	216.67	47.50	357.10
J59	0.11	216.67	43.82	323.53	0.11	216.67	43.82	323.53
J60	0.11	216.67	39.89	295.05	0.11	216.67	39.89	295.05
J61	0.11	216.67	39.49	292.92	0.11	216.67	39.49	292.92
J62	0.11	216.67	43.56	321.49	0.11	216.67	43.56	321.49
J63	0.11	216.67	43.99	324.78	0.11	216.67	43.99	324.78
J64	0.11	216.67	40.51	299.18	0.11	216.67	40.51	299.18
J65	0.11	216.67	40.60	299.67	0.11	216.67	40.60	299.67
J66	0.11	216.67	44.81	331.87	0.11	216.67	44.81	331.87
J67	0.11	216.67	45.45	337.25	0.11	216.67	45.45	337.25
J68	0.11	216.67	40.97	302.04	0.11	216.67	40.97	302.04
J69	0.11	216.67	41.01	302.70	0.11	216.67	41.01	302.70
J70	0.11	216.67	44.49	329.67	0.11	216.67	44.49	329.67
J71	0.11	216.67	45.01	334.43	0.11	216.67	45.01	334.43
J72	0.11	216.67	41.40	305.77	0.11	216.67	41.40	305.77
J73	0.11	216.67	41.58	306.65	0.11	216.67	41.58	306.65
J74	0.11	216.67	44.84	332.35	0.11	216.67	44.84	332.35
J75	0.10	216.67	47.72	362.93	0.10	216.67	47.72	362.93
J76	0.10	216.67	52.17	424.19	0.10	216.67	52.17	424.19
J77	0.10	216.67	46.94	354.98	0.10	216.67	46.94	354.98
J78	0.07	216.67	52.51	431.53	0.07	216.67	52.51	431.53
J79	0.07	216.67	48.92	375.90	0.07	216.67	48.92	375.90
J80	0.15	216.67	44.78	335.18	0.15	216.67	44.78	335.18
J81	0.15	216.67	55.32	509.04	0.15	216.67	55.32	509.04
J82	0.15	216.67	54.74	491.15	0.15	216.67	54.74	491.15
J83	0.15	216.67	55.51	508.13	0.15	216.67	55.51	508.13
J84	0.15	216.67	55.56	512.45	0.15	216.67	55.56	512.45
J85	0.15	216.67	38.73	290.35	0.15	216.67	38.73	290.35
J86	0.15	216.67	35.05	270.05	0.15	216.67	35.05	270.05
J87	0.15	216.67	35.06	270.17	0.15	216.67	35.06	270.17
J88	0.15	216.67	39.16	292.86	0.15	216.67	39.16	292.86
J89	0.15	216.67	56.38	535.86	0.15	216.67	56.38	535.86
J90	0.15	216.67	48.04	369.72	0.15	216.67	48.04	369.72
J91	0.15	216.67	54.82	485.74	0.15	216.67	54.82	485.74
J92	0.15	216.67	44.45	332.07	0.15	216.67	44.45	332.07
J93	0.15	216.67	41.41	308.39	0.15	216.67	41.41	308.39
J94	0.08	216.67	55.84	506.78	0.08	216.67	55.84	506.78
J95	0.08	216.67	56.04	507.16	0.08	216.67	56.04	507.16
J96	0.08	216.67	56.53	525.05	0.08	216.67	56.53	525.05
J97	0.08	216.67	47.20	356.63	0.08	216.67	47.20	356.63
J98	0.00	216.67	56.72	532.71	0.00	216.67	56.72	532.71

Sufficient hydrant coverage to meet the RFF.

APPENDIX C

SANITARY

NOVATECH
Engineers, Planners & Landscape Architects

M E M O R A N D U M

DATE: MAY 30, 2019

TO: JOSÉE VALLEE – CITY OF OTTAWA

FROM: CONRAD STANG – NOVATECH

RE: STRANDHERD DRIVE WIDENING PROJECT
SOUTH NEPEAN COLLECTOR PHASE 3: SANITARY FLOW CALCULATIONS

CC: EDSON DONNELLY – NOVATECH

See markups on:
- Figure 1
- "Sanitary Sewer Design Sheet, South Nepean Collector - Phase 2 & 3" (Dec 5, 2018 version)
- "Sanitary Sewer Design Sheet, South Nepean Collector - Phase 2 & 3" (August 20, 2015 version)

1.0 PURPOSE

This memorandum provides the sanitary sewer flow calculations and design sheet for Phase 3 of the proposed South Nepean Collector (SNC), as part of the Strandherd Drive Widening Project. Sanitary design flows have been estimated for both current-day operational flows and future development peak design flows. They are based on the latest available planning information for the vacant lands within the SNC sewershed.

2.0 BACKGROUND

In January 1998, the Master Servicing Study for the South Nepean Urban Area provided a conceptual plan for water, wastewater and stormwater infrastructure. The preferred alternative for wastewater servicing was an east/west trunk sewer alignment that was to be completed in several phases. The proposed sanitary trunk sewer was initially called the Jock River Collector, but was renamed the South Nepean Collector during the original functional design study completed in 2003.

Phase 1 of the South Nepean Collector was completed in 2005 and currently terminates at a 2400mm maintenance hole located east of Longfields Drive, north of Bren-Maur Road. Phase 2 was completed in 2016 and currently terminates at a 2400mm maintenance hole located at the intersection of Strandherd Drive and Fraser Fields Way.

Phase 3 will extend the trunk sewer along Strandherd Drive to the intersection of Kennevale Drive. Here it will connect with the existing sanitary trunk sewer that was constructed as part of the 2014 works to improve Strandherd Drive and develop the CitiGate Lands.

The sanitary sewer flows were previously documented in the *South Nepean Collector – Functional Design Report and Update* (Dillon, 2012). Novatech (2016) completed a Hydraulics Review / Assessment of the sanitary flows presented in the Dillion Report (attached). This was based on the latest planning information for the vacant lands within the SNC sewershed. The results of the Hydraulics Review / Assessment (Novatech, 2016) were similar to the results from the Dillion (2012) analysis.

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3.0 DESIGN PARAMETERS AND POPULATION ESTIMATES

3.1 Design Parameters

The sanitary design flow were calculated using the parameters from the City of Ottawa Sewer Design Guidelines (October 2012), revised per Technical Bulletin ISTB-2018-01 (March 2018). These parameters are summarized in **Table 1** and **Table 2**.

Table 1: Peak Design Flow Parameters

Land Use	Average Daily Flow	Peaking Factor	Peak Extraneous Flows
Residential	280 L/cap/day	Harmon Equation, K=0.8 (1.6 min – 3.2 max)	0.33 L/s/ha
Commercial	28,000 L/ha/day	1.0 – 1.5*	
Institutional	28,000 L/ha/day	1.0 – 1.5*	
Other†	0 L/ha/day	N/A	

**Peak Factor = 1.5 if contributing area is >20%; Peak Factor = 1.0 if contributing area is <20%*
†Open Space, Arterial ROW, SWM Blocks, etc. with no sanitary flow contribution (extraneous flow only)

Table 2: Operational Design Flow Parameters

Land Use	Average Daily Flow	Peaking Factor	Peak Extraneous Flows
Residential	200 L/cap/day	Harmon Equation, K=0.6 (1.2 min – 2.4 max)	0.30 L/s/ha
Commercial	17,000 L/ha/day	1.0 (non-coincident peak)	
Institutional	17,000 L/ha/day	1.0 (non-coincident peak)	

**There are no industrial areas identified within the tributary area.*

$$\text{Harmon Equation} = 1 + \frac{14}{4+\left(\frac{P}{1000}\right)^{\frac{1}{2}}} \times K$$

Where:

P = Population
K = Correction Factor:
- Peak Flow = 0.8
- Operational = 0.6

3.2 Land Use Designations & Population Estimates

Population densities and unit counts for future residential development are based on the Novatech (2016) Hydraulics Review / Assessment; refer to **Table 3**. They are based on the concept plans provided by the developers of the future residential areas.

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Table 3: Residential Land Use Population Densities

Residential Land Use	Units per ha	Persons per Unit	Persons per ha
Low Density (singles and semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row/townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

The land use designations shown in **Table 4** have been applied for the areas within Phases 2 & 3 of the SNC (Node 70 to 130). The Hydraulics Analysis / Review delineated the sewershed areas and land use designations using aerial photos (existing development) and conceptual site plans (future development).

Table 4: Land Use Designations

Land Use Designation	
Secondary Plan	**SNC Design**
Residential	Residential (Low / Medium / High Density)
Institutional / Office	Institutional
Commercial	Commercial
Recreational	
Business Park	
Prestige Business Park	
Park/Open Space Area	Other*
Ex. Snow Disposal Facility (future commercial)	
Stormwater Management Facility	
Conservation Lands	
Arterial Right-of-Ways	

** No sanitary flow contribution - extraneous flows (inflow/infiltration) only.*

The overall residential population estimate and sewershed area for Phases 2 and 3 of the SNC is provided in **Table 5** below. It is assumed that the snow dump facility at the Stranderd Drive and McKenna Casey Drive will ultimately be re-zoned for commercial development.

Table 5: Population Estimates and Areas

Existing / Future	Estimated Population / Area	Novatech (2015)
Existing	Estimated Population	6,944 persons
	Gross Residential Area	60.09 ha
	Gross Commercial / Institutional Area	64.37 ha
	Total Sewershed Area	124.5 ha
Future (full service)	Estimated Population	27,312 persons
	Gross Residential Area	248.48 ha
	Gross Commercial / Institutional Area	228.82 ha
	Total Sewershed Area	477.3 ha

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4.0 SANITARY DESIGN FLOWS

The sanitary flow allocations for Phases 2 and 3 of the SNC are provided in **Table 6**. The corresponding sanitary drainage area plan is provided as **Figure 1**. Sanitary sewer flow calculations for Phases 2 and 3 and detailed sanitary sewer design sheets for Phase 3 are attached to this memorandum.

The estimated sanitary design flows from Phase 3 of the SNC (entering Node 90) are as follows:

- Present-Day Operational Design Flows (Theoretical) = 55.1 L/s
- Future Peak Design Flows = 282.5 L/s

The outlet for Phase 3 of the SNC is the existing 900mm outlet pipe at the 2400mm maintenance hole (Node 90) located at the intersection of Strandherd Drive and Fraser Fields Way. Given a minimum design slope of 0.10%, this 900mm sanitary trunk sewer would have a full flow capacity of 597.2 L/s. Therefore, the downstream sanitary trunk sewer would be at 64% capacity, based on the future peak design flow being 282.5 L/s.

ATTACHMENTS:

- Figure 1: Sanitary Drainage Areas and Land Use
- Sanitary Sewer Flow Calculations
- Sanitary Sewer Design Sheets (Phase 3)
- South Nepean Collector Phase 2: Hydraulics Review / Assessment (Novatech, 2016)
- Excerpts from Dillion (2012)

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Table 6: Updated Allocation of Commercial, Institutional and Residential Demands to Phases 2 & 3 (Nodes 70 – 130) of the SNC by Collection Area

Collection Area	Upstream Node	Existing / Proposed Development	Existing / Proposed Land Use	Area (ha)	Estimated Number of Residential Units	Population Density (persons / ha)	Comment	Reference
A1	130	Proposed	Commercial	12.80	-	-	O'Keefe Court – Conceptual site plan shows proposed commercial.	Conceptual Plans for O'Keefe Court
A2-A	130	Proposed	Commercial	85.18	-	-	CitiGate – Analysis uses same approach as the design for CitiGate.	Detailed Servicing and SWM Report (Phase 1) (Novatech, 2014)
A2-B	130	Proposed	Commercial	32.46	-	-		
A2-C	120	Proposed	Commercial (ex. Snow dump)	15.25	-	-	Existing snow dump facility assumed to be future commercial.	Functional Design Report and Update – SNC Phase 2 and 3 (Dillon, 2012)
A3-A	130	Proposed	Low Density Residential	16.18	461	95.2	Havencrest – Existing single family units.	Havencrest Design Report (IBI, 2013)
A3-B	130	Existing	Institutional	10.30	-	-	Cedarview Middle School and Cedarview Alliance Church.	Aerial Photos / Site Visits
A3-C	130	Existing	Medium Density Residential	5.19	311	162	Existing townhouse units.	
A3-D	130	Existing	Commercial	0.58	-	-	Existing commercial buildings.	
A3-E	130	Existing	Low Density Residential	35.68	999	95.2	Existing single family units.	
A3-F	130	Existing	Medium Density Residential	8.26	496	162.0	Existing townhouse units.	
A3-G	130	Existing	Institutional	0.90	-	-	Ottawa Torah Centre Chibad.	
A3-H	120	Existing	Low Density Residential	6.09	171	95.2	Existing single family units.	
A4	130	Existing	Low Density Residential	34.44	964	95.2	Existing single family units currently serviced by Jockvale pump station; to be redirected to SNC.	Functional Design Report and Update – SNC Phase 2 and 3 (Dillon, 2012); based on 2011 Census.
A5	110	Proposed	Commercial	17.72	-	-	Proposed commercial south of McKenna Casey Drive.	Site Visits
A6-A	100	Proposed	Commercial	15.18	-	-	Proposed commercial south of Srandherd Drive; east of Borrisokane Road.	Conceptual Plan for Lands Adjacent the Kennedy-Burnett SWMF provided by Minto (2015)
A6-B	100	Proposed	Institutional	6.05			Proposed school site on Minto property.	
A6-C	90	Existing	Medium Density Residential	4.87	292	162.0	Existing townhouse units.	Aerial Photos / Site Visits
A6-D	90	Proposed	Low Density Residential	17.56	492	95.2	Proposed single family units on lands owned by Minto / Mion.	Conceptual Plans for Lands Adjacent the Kennedy-Burnett SWMF provided by land owners.
A6-E	90	Proposed	Low Density Residential	6.94	203	95.2	Proposed single family units on lands owned by Pavic / Braovac.	
A7-A	80	Existing	Commercial	13.62	-	-	Existing large retail stores (commercial).	Aerial Photos
A7-B	80	Proposed	High Density Residential	11.01	826	135.0	Proposed high density units on lands owned by Richcraft / Trinity.	Conceptual Plans for Lands Adjacent the Kennedy-Burnett SWMF provided by land owners.
A7-C	80	Proposed	Medium Density Residential	6.97	418	162.0	Proposed Medium density units on lands owned by Mion.	
A7-D	80	Proposed	Medium Density Residential	11.74	704	162.0	Proposed Medium density units on lands owned by Caivan.	
A7-E1/E2	80	Proposed	Medium Density Residential	9.24	554	162.0	Proposed Medium density units on lands owned by Claridge.	
A8-A	80	Existing	Commercial	28.45	-	-	Existing Barrhaven Market Place (commercial).	Aerial Photos / Site Visits
A8-B	80	Proposed	High Density Residential	39.34	2951	135.0	Future development similar to Ampersands development.	Site Visits
A8-C	80	Existing	Institutional	10.52	-	-	Existing St. Joseph High School.	Aerial Photos / Site Visits
A8-D	80	Proposed	Low Density Residential	16.87	1012	162.0	Proposed 600 low density residential units.	Functional Design Report and Update – SNC Phase 2 and 3 (Dillon, 2012)

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FALLOWFIELD RD

GREENBANK RD

MOODIE DR

HWY 416

A1 12.80ha

A3-A 16.18ha

A3-B 10.30ha

A4 34.44ha

A3-C 5.19ha

A3-D 0.58ha

A2-A 85.18ha

A2-B 32.46ha

A3-E 35.68ha

A3-G 0.90ha

A3-F 8.26ha

130

120

110

A2-C 15.25ha

A5 17.72ha

A3-H 6.09ha

A6-B 6.05ha

A6-C 4.87ha

90

A7-C 6.97ha

A7-A 13.62ha

A8-A 28.45ha

A7-B 11.01ha

70

STRANDHERD DR

A6-D 17.56ha

A6-A 15.18ha

A7-D 11.74ha

A8-B 39.34ha

LONGFIELDS DR

MCKENNA CASEY DR

100

A8-C 10.52ha

60

A7-E1 7.70ha

A6-E 6.94ha

80

A8-D 16.87ha

50

JOCKVALE RD

30

20

10

40

A7-E2 1.54ha

JOCK RIVER

Conservancy - WEST

Conservancy - EAST

Conservancy - Phase 1

LEGEND

- EXISTING / PROPOSED HIGH DENSITY RESIDENTIAL
- EXISTING / PROPOSED MEDIUM DENSITY RESIDENTIAL
- EXISTING / PROPOSED LOW DENSITY RESIDENTIAL
- EXISTING / PROPOSED COMMERCIAL
- EXISTING / PROPOSED INSTITUTIONAL
- OTHER LANDS (OPEN SPACE, PARKS, AND SWMFS)
- SOUTH NEPEAN COLLECTOR PHASE 1
- SOUTH NEPEAN COLLECTOR PHASE 2
- SOUTH NEPEAN COLLECTOR PHASE 3
- 80 SOUTH NEPEAN COLLECTOR NODE ID

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SOUTH NEPEAN COLLECTOR SEWER

SANITARY DRAINAGE AREAS AND LAND USE

SCALE 1:20 000

DATE MAY 2019 | JOB 117190 | FIGURE FIG. 1

M:\2015\117507\CAD\Design\Figures\DSK\DSK08_SANArea\DSK08_SANArea.dwg, DSK08, May 30, 2019 - 1:28pm, cstang

PROJECT #: 117190
DESIGNED BY: CMS
CHECKED BY: RJD
DATE: December 5, 2018

SANITARY SEWER DESIGN SHEET

South Nepean Collector - Phase 2 & 3

Theoretical Current Operational Peak Wastewater Flow

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Location			Areas				Population				Individual Design Flows			Cumulative Design Flows				
Area I.D.	Existing Land Use	Upstream Node	Gross Commercial Area (ha)	Gross Institutional Area (ha)	Gross Residential Area (ha)	Total Gross Area (ha)	Residential Populatation Density (people / ha)	Individual Residential Population	Cumulative Residential Population	Residential Peaking Factor (Harmon Eqn[1])	Commercial Peak Flow Rate[2] (17,000 L/ha/d) (L/s)	Institutional Peak Flow Rate[2] (17,000 L/ha/d) (L/s)	Infiltration / Inflow Rate (0.3 L/s/ha) (L/s)	Commercial (L/s)	Institutional (L/s)	Infiltration / Inflow (L/s)	Residential Peak Flow Rate (200 L/cap/d) (L/s)	Cumulative Peak Design Flow (L/s)
A1	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A2-A	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A2-B	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A3-A	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A3-B	Institutional	130		10.30		10.30					0.0	2.0	3.1	0.0	2.0	3.1	0.0	5.1
A3-C	Medium Density Residential	130			5.19	5.19	162.0	841	841	2.40	0.0	0.0	1.6	0.0	2.0	4.6	4.7	11.3
A3-D	Commercial	130	0.58			0.58			841	2.40	0.1	0.0	0.2	0.1	2.0	4.8	4.7	11.6
A3-E	Low Density Residential	130			35.68	35.68	95.2	3397	4238	2.39	0.0	0.0	10.7	0.1	2.0	15.5	23.4	41.1
A3-F	Medium Density Residential	130			8.26	8.26	162	1338	5576	2.32	0.0	0.0	2.5	0.1	2.0	18.0	29.9	50.1
A3-G	Institutional	130		0.90		0.90			5576	2.32	0.0	0.2	0.3	0.1	2.2	18.3	29.9	50.5
A4	Low Density Residential*	130				0.00			5576	2.32	0.0	0.0	0.0	0.1	2.2	18.3	29.9	50.5
A2-C	Snow Dump Facility	120				0.00			5576	2.32	0.0	0.0	0.0	0.1	2.2	18.3	29.9	50.5
A3-H	Low Density Residential	120			6.09	6.09	95.2	580	6155	2.30	0.0	0.0	1.8	0.1	2.2	20.1	32.7	55.1
A5	Open Space	110				0.00			6155	2.30	0.0	0.0	0.0	0.1	2.2	20.1	32.7	55.1
A6-A	Open Space	100				0.00			6155	2.30	0.0	0.0	0.0	0.1	2.2	20.1	32.7	55.1
A6-B	Open Space	100				0.00			6155	2.30	0.0	0.0	0.0	0.1	2.2	20.1	32.7	55.1
A6-C	Medium Density Residential	90			4.87	4.87	162.0	789	6944	2.27	0.0	0.0	1.5	0.1	2.2	21.6	36.4	60.3
A6-D	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	0.1	2.2	21.6	36.4	60.3
A6-E	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	0.1	2.2	21.6	36.4	60.3
A7-A	Commercial	90	13.62			13.62			6944	2.27	2.7	0.0	4.1	2.8	2.2	25.6	36.4	67.1
A7-B	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	2.2	25.6	36.4	67.1
A7-C	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	2.2	25.6	36.4	67.1
A7-D	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	2.2	25.6	36.4	67.1
A7-E1/E2	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	2.2	25.6	36.4	67.1
A8-A	Commercial	80	28.45			28.45			6944	2.27	5.6	0.0	8.5	8.4	2.2	34.2	36.4	81.2
A8-B	Open Space	80				0.00			6944	2.27	0.0	0.0	0.0	8.4	2.2	34.2	36.4	81.2
A8-C	Institutional	80		10.52		10.52			6944	2.27	0.0	2.1	3.2	8.4	4.3	37.3	36.4	86.4
A8-D	Open Space	80				0.00			6944	2.27	0.0	0.0	0.0	8.4	4.3	37.3	36.4	86.4
ROW Along SNC Sewer Alignment	-	80				14.34			6944	2.27	0.0	0.0	4.3	8.4	4.3	41.6	36.4	90.7
TOTAL		***80***	***42.65***	***21.72***	***60.09***	***138.80***	***-***	***6944***	***6944***	***2.27***	***8.4***	***4.3***	***41.6***	***8.4***	***4.3***	***41.6***	***36.4***	***90.7***

Residential Land Use	Population Density (Units / ha)	Persons per Unit	Persons per ha
Low Density (singles and semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row/townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

Notes:

1. Harmon Equation = 1 + [14 / (4+(P/1000)$^{1/2}$)] x K

Where: P = population; K = correction factor = 0.6

2. Instituional / Commercial Peaking Factor = 1.0

Reported Design Flows / Assumptions:

1. Area A4: Existing single family units currently serviced by Jockvale pump station; currently not directed to SNC

PROJECT #: 117190
DESIGNED BY: CMS
CHECKED BY: RJD
DATE: December 5, 2018

SANITARY SEWER DESIGN SHEET

South Nepean Collector - Phase 2 & 3

Theoretical Future Full Service Peak Wastewater Flow

NOVATECH
Engineers, Planners & Landscape Architects

Location			Areas				Population				Individual Design Flows			Cumulative Design Flows				
Area I.D.	Existing / Proposed Land Use	Upstream Node	Gross Commercial Area (ha)	Gross Institutional Area (ha)	Gross Residential Area (ha)	Total Gross Area (ha)	Residential Populatation Density (people / ha)	Individual Residential Population	Cumulative Residential Population	Residential Peaking Factor (Harmon Eqn[1])	Commercial Peak Flow Rate[2] (28,000 L/ha/d) (L/s)	Institutional Peak Flow Rate[2] (28,000 L/ha/d) (L/s)	Infiltration / Inflow Rate (0.33 L/s/ha) (L/s)	Commercial (L/s)	Institutional (L/s)	Infiltration / Inflow (L/s)	Residential Peak Flow Rate (280 L/cap/d) (L/s)	Cumulative Peak Design Flow (L/s)
A1	Commercial	130	12.80			12.80					6.2	0.0	4.2	6.2	0.0	4.2	0.0	10.4
A2-A	Commercial	130	85.18			85.18					41.4	0.0	28.1	47.6	0.0	32.3	0.0	80.0
A2-B	Commercial	130	32.46			32.46					15.8	0.0	10.7	63.4	0.0	43.0	0.0	106.5
A3-A	Low Density Residential	130			16.18	16.18	95.2	1540	1540	3.14	0.0	0.0	5.3	63.4	0.0	48.4	15.7	127.5
A3-B	Institutional	130		10.30		10.30			1540	3.14	0.0	3.3	3.4	63.4	3.3	51.8	15.7	134.2
A3-C	Medium Density Residential	130			5.19	5.19	162.0	841	2381	3.02	0.0	0.0	1.7	63.4	3.3	53.5	23.3	143.6
A3-D	Commercial	130	0.58			0.58			2381	3.02	0.3	0.0	0.2	63.7	3.3	53.7	23.3	144.0
A3-E	Low Density Residential	130			35.68	35.68	95.2	3397	5778	2.75	0.0	0.0	11.8	63.7	3.3	65.5	51.5	184.0
A3-F	Medium Density Residential	130			8.26	8.26	162	1338	7116	2.68	0.0	0.0	2.7	63.7	3.3	68.2	61.8	197.0
A3-G	Institutional	130		0.90		0.90			7116	2.68	0.0	0.3	0.3	63.7	3.6	68.5	61.8	197.6
A4	Low Density Residential	130			34.44	34.44	95.2	3279	10395	2.55	0.0	0.0	11.4	63.7	3.6	79.9	85.9	233.1
A2-C	Commercial (ex. snow dump)	120	15.25			15.25			10395	2.55	7.4	0.0	5.0	71.1	3.6	84.9	85.9	245.5
A3-H	Low Density Residential	120			6.09	6.09	95.2	580	10974	2.53	0.0	0.0	2.0	71.1	3.6	86.9	90.0	251.7
A5	Commercial	110	17.72			17.72			10974	2.53	8.6	0.0	5.8	79.7	3.6	92.7	90.0	266.1
A6-A	Commercial	100	15.18			15.18			10974	2.53	7.4	0.0	5.0	87.1	3.6	97.7	90.0	278.5
A6-B	Institutional	100		6.05		6.05			10974	2.53	0.0	2.0	2.0	87.1	5.6	99.7	90.0	282.5
A6-C	Medium Density Residential	90			4.87	4.87	162.0	789	11763	2.51	0.0	0.0	1.6	87.1	5.6	101.4	95.6	289.6
A6-D	Low Density Residential	90			17.56	17.56	95.2	1672	13435	2.46	0.0	0.0	5.8	87.1	5.6	107.1	107.2	307.0
A6-E	Low Density Residential	90			6.94	6.94	95.2	661	14096	2.44	0.0	0.0	2.3	87.1	5.6	109.4	111.7	313.8
A7-A	Commercial	90	13.62			13.62			14096	2.44	6.6	0.0	4.5	93.7	5.6	113.9	111.7	324.9
A7-B	High Density Residential	90			11.01	11.01	135.0	1486	15582	2.41	0.0	0.0	3.6	93.7	5.6	117.6	121.7	338.5
A7-C	Medium Density Residential	90			6.97	6.97	162.0	1129	16711	2.38	0.0	0.0	2.3	93.7	5.6	119.9	129.2	348.3
A7-D	Medium Density Residential	90			11.74	11.74	162.0	1902	18613	2.35	0.0	0.0	3.9	93.7	5.6	123.7	141.6	364.6
A7-E1/E2	Medium Density Residential	90			9.24	9.24	162.0	1497	20110	2.32	0.0	0.0	3.0	93.7	5.6	126.8	151.2	377.3
A8-A	Commercial	80	28.45			28.45			20110	2.32	13.8	0.0	9.4	107.5	5.6	136.2	151.2	400.5
A8-B	High Density Residential	80			39.34	39.34	135.0	5311	25421	2.24	0.0	0.0	13.0	107.5	5.6	149.2	184.4	446.7
A8-C	Institutional	80		10.52		10.52			25421	2.24	0.0	3.4	3.5	107.5	9.0	152.6	184.4	453.6
A8-D	Low Density Residential	80			16.87	16.87	120.9	2040	27461	2.21	0.0	0.0	5.6	107.5	9.0	158.2	196.9	471.6
ROW Along SNC Sewer Alignment	-	80				14.34			27461	2.21	0.0	0.0	4.7	107.5	9.0	162.9	196.9	476.3
TOTAL		***80***	***221.24***	***27.77***	***230.38***	***493.73***	***-***	***27461***	***27461***	***2.21***	***107.5***	***9.0***	***162.9***	***107.5***	***9.0***	***162.9***	***196.9***	***476.3***

Residential Land Use	Population Density (Units / ha)	Persons per Unit	Persons per ha
Low Density (singles and semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row/townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

Notes:

1. Harmon Equation = 1 + [14 / (4+(P/1000)$^{1/2}$)] x K

Where: P = population; K = correction factor = 0.8

2. Commercial Peaking Factor = 1.5; Institutional Peaking Factor = 1.0

Reported Design Flows / Assumptions:

1. Area A4: Existing single family units currently serviced by Jockvale pump station to be redirected to SNC
2. Area A8-D: proposed 600 medium density residential units

See Note (2) in the DSEL "Barrhaven Conservancy - Evaluation of SNC Flows" design sheet

THE PRIOR NOVATECH SNC DESIGN SHEET HAD FLOWS AT 423.6 L/s AFTER AREA ID "A6-E'.

THIS UPDATED NOVATECH 'PHASE 3' EVALUATION HAS A FLOW OF 313.8 L/s.

THE DSEL EVALUATION OF SANITARY FLOWS WITH THE NEW CITY DESIGN PARAMETERS AT THIS SAME NODE (WITH CONSERVANCY WEST AND EAST INCLUDED) IS ~401.05 L/s (WHICH IS LESS THAN THE PRIOR 423.6 L/s NOTED ABOVE)

SOUTH NEPEAN COLLECTOR (PHASE 3)
SANITARY SEWER DESIGN SHEET

DECEMBER 5 2018
JOB# 117190

NOVATECH
Engineers, Planners & Landscape Architects

LOCATION			Area				Population		Cumulative Design Flows					PROPOSED SEWER						
From MH	To MH	Upstream Node	Gross Commercial Area (ha)	Gross Institutional Area (ha)	Gross Residential Area (ha)	Total Gross Area (ha)	Cumulative Residential Population	Residential Peaking Factor (Harmon Eqn[1])	Commercial (L/s)	Institutional (L/s)	Infiltration / Inflow (L/s)	Residential Peak Flow Rate (280 L/cap/d) (L/s)	Cumulative Peak Design Flow (L/s)	Length (m)	Pipe Size (mm)	Type	Slope %	Capacity (L/s)	Full Flow Velocity (m/s)	Ratio (Q/Qfull)
SA 22	SA 21	120	146.27	11.20	105.84	263.31	10974	2.53	71.1	3.6	86.9	90.0	251.7	131.9	750	CONC	0.10	367.3	0.81	69%
SA 21	SA 20	120											251.7	90.6	750	CONC	0.10	367.3	0.81	69%
SA 20	SA 19	120											251.7	90.0	750	CONC	0.10	367.3	0.81	69%
SA 19	SA 18	120											251.7	72.1	750	CONC	0.10	367.3	0.81	69%
SA 18	SA 17	120											251.7	71.9	750	CONC	0.10	367.3	0.81	69%
SA 17	SA 16	120											251.7	71.4	750	CONC	0.10	367.3	0.81	69%
SA 16	SA 15	110	163.99	11.20	105.84	281.03	10974	2.53	79.7	3.6	92.7	90.0	266.1	73.2	750	CONC	0.10	367.3	0.81	72%
SA 15	SA 14	110											266.1	67.5	750	CONC	0.10	367.3	0.81	72%
SA 14	SA 13	110											266.1	56.6	750	CONC	0.10	367.3	0.81	72%
SA 13	SA 12	110											266.1	133.5	750	CONC	0.10	367.3	0.81	72%
SA 12	SA 11	110											266.1	150.0	750	CONC	0.10	367.3	0.81	72%
SA 11	SA 10	100	179.17	17.25	105.84	302.26	10974	2.53	87.1	5.6	99.7	90.0	282.5	97.8	750	CONC	0.10	367.3	0.81	77%
SA 10	SA 9	100											282.5	76.7	750	CONC	0.10	367.3	0.81	77%
SA 9	SA 8	100											282.5	79.7	750	CONC	0.10	367.3	0.81	77%
SA 8	SA 7	100											282.5	75.3	750	CONC	0.10	367.3	0.81	77%
SA 7	SA 6	100											282.5	84.9	750	CONC	0.10	367.3	0.81	77%
SA 6	SA 5	100											282.5	77.1	750	CONC	0.10	367.3	0.81	77%
SA 5	SA 4	100											282.5	78.9	750	CONC	0.10	367.3	0.81	77%
SA 4	SA 3	100											282.5	80.5	750	CONC	0.10	367.3	0.81	77%
SA 3	SA 2	100											282.5	150.0	750	CONC	0.10	367.3	0.81	77%
SA 2	SA 1	100											282.5	114.6	750	CONC	0.10	367.3	0.81	77%
SA 1	*EX 80*	100											282.5	12.4	750	CONC	0.10	367.3	0.81	77%

Design Parameters:

Residential Land Use	Population Density (Units / ha)	Persons per Unit	Persons per ha
Low Density (singles / semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row / townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

Notes:

1. Harmon Equation = 1 + [14 / (4+(P/1000)$^{1/2}$)] x K

Where: P = population; K = correction factor = 0.8

2. Commercial Peaking Factor = 1.5; Institutional Peaking Factor = 1.0

Reported Design Flows / Assumptions:

1. Area A4: Existing single family units currently serviced by Jockvale pump station to be redirected to SNC

2. Area A8-D: proposed 600 medium density residential units

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M E M O R A N D U M

DATE: MAY 26, 2016

TO: JONATHAN KNOYLE – CITY OF OTTAWA

FROM: CONRAD STANG – NOVATECH

RE: SOUTH NEPEAN COLLECTOR PHASE 2: SANITARY FLOW CALCULATIONS

CC: EDSON DONNELLY – NOVATECH

1.0 PURPOSE

This memorandum provides the sanitary sewer flow calculations and design sheet for Phase 2 of the proposed South Nepean Collector (SNC). Sanitary design flows have been estimated for both current-day operational flows and future development peak design flows, based on the latest available planning information for the vacant lands within the SNC sewershed.

2.0 BACKGROUND

In January 1998, the Master Servicing Study for the South Nepean Urban Area provided a conceptual plan for water, wastewater and stormwater infrastructure. The preferred alternative for wastewater servicing was an east/west trunk sewer alignment that was to be completed in several phases. The proposed sanitary trunk sewer was initially called the Jock River Collector, but was renamed the South Nepean Collector during the original functional design study completed in 2003.

Phase 1 of the South Nepean Collector was completed in 2005 and currently terminates at a 2400mm maintenance hole located east of Longfields Drive, north of Bren-Maur Road. Phase 2 will extend the trunk sewer to Strandherd Drive at the intersection of the proposed transitway along the proposed extension to Chapman Mills Drive. Phase 3 will extend the trunk sewer along Strandherd Drive to the intersection of Maravista Drive.

The sanitary sewer flows were previously documented in the *South Nepean Collector – Functional Design Report and Update* (Dillon, 2012). A review of the sanitary flows provided in the Dillion Report based on the latest planning information for the vacant lands within the SNC sewershed was documented in the technical memorandum titled South Nepean Collector Phase 2: Hydraulics Review / Assessment (Novatech, 2015), which is attached to this memorandum. The results of the Hydraulics Review / Assessment (Novatech, 2015) were very similar to the results from the Dillion (2012) analysis.

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3.0 DESIGN PARAMETERS AND POPULATION ESTIMATES

3.1 Design Parameters

The sanitary design flow were calculated using the parameters from the City of Ottawa Sewer Design Guidelines (October 2012), and are summarized in **Table 1** and **Table 2**.

Table 1: Peak Design Flow Parameters

Land Use	Average Daily Flow	Peaking Factor	Peak Extraneous Flows
Residential	350 L/cap/day	Harmon Equation, K=1 (2.0 min – 4.0 max)	0.28 L/s/ha
Commercial	50,000 L/ha/day	1.5	
Institutional	50,000 L/ha/day	1.5	
Other*	0 L/ha/day	N/A	

**Open Space, Arterial ROW, SWM Blocks, etc. with no sanitary flow contribution (extraneous flow only)*

Table 2: Operational Design Flow Parameters

Land Use	Average Daily Flow	Peaking Factor	Peak Extraneous Flows
Residential	300 L/cap/day	Harmon Equation, K=0.6 (1.2 min – 2.4 max)	Dry weather 0.05-0.08 L/s/ha Wet Weather 0.15 - 0.20 L/s/ha (typical events) 0.28 L/s/ha (large/annual events) 0.30 - 0.50 L/s/ha (extreme events)
Commercial	17,000 L/ha/day	1.0 (non-coincident peak)	
Institutional	10,000 L/ha/day	1.0 (non-coincident peak)	

**There are no industrial areas identified within the tributary area.*

$$\text{Harmon Equation} = 1 + \frac{14}{4+\left(\frac{P}{1000}\right)^{\frac{1}{2}}} \times K$$

Where:

P = Population

K = Correction Factor:

- Peak Flow = 1
- Operational = between 0.4 to 0.6 (0.6 used)

3.2 Land Use Designations & Population Estimates

Population densities and unit counts for future residential development are based on the current concept plans for these areas, and are presented in **Table 3**.

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Table 3: Residential Land Use Population Densities

Residential Land Use	Units per ha	Persons per Unit	Persons per ha
Low Density (singles and semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row/townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

The land use designations shown in **Table 4** have been applied for the areas within Phases 2 and 3 of the SNC (Node 70 to 130). The sewershed areas and land use designations were delineated using aerial photos (existing development) and conceptual site plans (future development).

Table 4: Land Use Designations

Land Use Designation	
Secondary Plan	**SNC Design**
Residential	Residential (Low / Medium / High Density)
Institutional / Office	Institutional
Commercial	Commercial
Recreational	
Business Park	
Prestige Business Park	
Park/Open Space Area	Other*
Ex. Snow Disposal Facility (future commercial)	
Stormwater Management Facility	
Conservation Lands	
Arterial Right-of-Ways	

** No sanitary flow contribution - extraneous flows (inflow/infiltration) only.*

The overall residential population estimate and sewershed area for Phases 2 and 3 of the SNC is provided in **Table 5** below. It is assumed that the snow dump facility at the Stranderd Drive and McKenna Casey Drive will ultimately be re-zoned for commercial development.

Table 5: Population Estimates and Areas

Existing / Future	Estimated Population / Area	Novatech (2015)
Existing	Estimated Population	6,944 persons
	Gross Residential Area	60.09 ha
	Gross Commercial / Institutional Area	64.37 ha
	Total Sewershed Area	124.5 ha
Future (full service)	Estimated Population	27,312 persons
	Gross Residential Area	248.48 ha
	Gross Commercial / Institutional Area	228.82 ha
	Total Sewershed Area	477.3 ha

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4.0 SANITARY DESIGN FLOWS

The sanitary flow allocations for Phases 2 and 3 of the SNC are provided in **Table 6**. The corresponding sanitary drainage area plan is provided as **Figure 1**. Sanitary sewer flow calculations for Phases 2 and 3 and detailed sanitary sewer design sheets for Phase 2 are attached to this memorandum.

The estimated sanitary design flows from Phases 2 and 3 of the SNC (entering Node 70) are as follows:

- Present-Day Operational Design Flows (Theoretical) = 72.5 L/s
- Future Peak Design Flows = 634.2 L/s

The outlet for Phase 2 of the SNC is the existing 1050mm outlet pipe at the 2400mm maintenance hole (Node 70) located east of Longfields Drive, north of Bren-Maur Road. Given a minimum design slope of 0.10%, this sanitary trunk sewer would have a full flow capacity of 900.5 L/s. Therefore, the downstream sanitary trunk sewer would be at 70% capacity, based on the future peak design flow being 634.2 L/s.

ATTACHMENTS:

- Figure 1: Sanitary Drainage Areas and Land Use
- Sanitary Sewer Flow Calculations
- Sanitary Sewer Design Sheets (Phase 2)
- South Nepean Collector Phase 2: Hydraulics Review / Assessment (Novatech, 2015)

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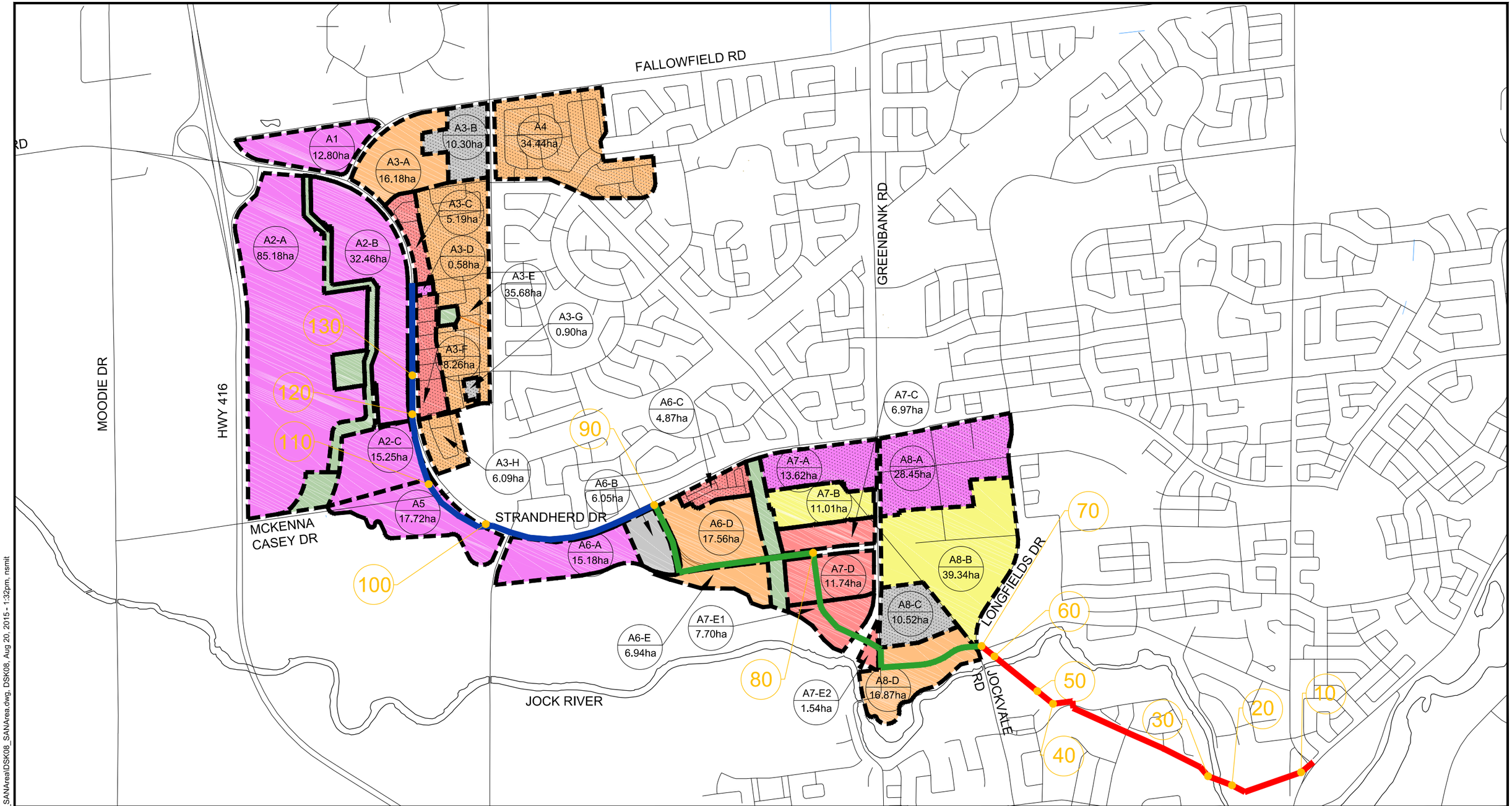
Table 6: Updated Allocation of Commercial, Institutional and Residential Demands to Phases 2 & 3 (Nodes 70 – 130) of the SNC by Collection Area

Collection Area	Upstream Node	Existing / Proposed Development	Existing / Proposed Land Use	Area (ha)	Estimated Number of Residential Units	Population Density (persons / ha)	Comment	Reference
A1	130	Proposed	Commercial	12.80	-	-	O'Keefe Court – Conceptual site plan shows proposed commercial.	Conceptual Plans for O'Keefe Court
A2-A	130	Proposed	Commercial	85.18	-	-	CitiGate – Analysis uses same approach as the design for CitiGate.	Detailed Servicing and SWM Report (Phase 1) (Novatech, 2014)
A2-B	130	Proposed	Commercial	32.46	-	-		
A2-C	120	Proposed	Commercial (ex. Snow dump)	15.25	-	-	Existing snow dump facility assumed to be future commercial.	Functional Design Report and Update – SNC Phase 2 and 3 (Dillon, 2012)
A3-A	130	Proposed	Low Density Residential	16.48	461	95.2	Havencrest – Existing single family units.	Havencrest Design Report (IBI, 2013)
A3-B	130	Existing	Institutional	10.30	-	-	Cedarview Middle School and Cedarview Alliance Church.	Aerial Photos / Site Visits
A3-C	130	Existing	Medium Density Residential	5.19	311	162	Existing townhouse units.	
A3-D	130	Existing	Commercial	0.58	-	-	Existing commercial buildings.	
A3-E	130	Existing	Low Density Residential	35.68	999	95.2	Existing single family units.	
A3-F	130	Existing	Medium Density Residential	8.26	496	162.0	Existing townhouse units.	
A3-G	130	Existing	Institutional	0.90	-	-	Ottawa Torah Centre Chibad.	
A3-H	120	Existing	Low Density Residential	6.09	171	95.2	Existing single family units.	
A4	130	Existing	Low Density Residential	34.44	964	95.2	Existing single family units currently serviced by Jockvale pump station; to be redirected to SNC.	Functional Design Report and Update – SNC Phase 2 and 3 (Dillon, 2012); based on 2011 Census.
A5	110	Proposed	Commercial	17.72	-	-	Proposed commercial south of McKenna Casey Drive.	Site Visits
A6-A	100	Proposed	Institutional	20.70	-	-	Proposed school site on Minto property.	Conceptual Plan for Lands Adjacent the Kennedy-Burnett SWMF provided by Minto (2015)
A6-B	90	Existing	Medium Density Residential	4.87	292	162.0	Existing townhouse units.	Aerial Photos / Site Visits
A6-C	90	Proposed	Low Density Residential	10.11	283	95.2	Proposed single family units on lands owned by Minto.	Conceptual Plans for Lands Adjacent the Kennedy-Burnett SWMF provided by land owners.
A6-D	90	Proposed	Low Density Residential	5.59	157	95.2	Proposed single family units on lands owned by Mion.	
A6-E	90	Proposed	Low Density Residential	7.24	203	95.2	Proposed single family units on lands owned by Pavic / Braovac.	
A7-A	80	Existing	Commercial	13.62	-	-	Existing large retail stores (commercial).	Aerial Photos
A7-B	80	Proposed	High Density Residential	11.01	826	135.0	Proposed high density units on lands owned by Richcraft / Trinity.	Conceptual Plans for Lands Adjacent the Kennedy-Burnett SWMF provided by land owners.
A7-C	80	Proposed	Medium Density Residential	6.97	418	162.0	Proposed Medium density units on lands owned by Mion.	
A7-D	80	Proposed	Medium Density Residential	11.74	704	162.0	Proposed Medium density units on lands owned by Caivan.	
A7-E1/E2	80	Proposed	Medium Density Residential	9.24	554	162.0	Proposed Medium density units on lands owned by Claridge.	
A8-A	80	Existing	Commercial	28.45	-	-	Existing Barrhaven Market Place (commercial).	Aerial Photos / Site Visits
A8-B	80	Proposed	High Density Residential	39.34	2951	135.0	Future development similar to Ampersands development.	Site Visits
A8-C	80	Existing	Institutional	10.52	-	-	Existing St. Joseph High School.	Aerial Photos / Site Visits
A8-D	80	Proposed	Low Density Residential	16.87	1012	162.0	Proposed 600 low density residential units.	Functional Design Report and Update – SNC Phase 2 and 3 (Dillon, 2012)

Suite 200, 240 Michael Cowpland Drive, Ottawa ON K2M 1P6 Tel: 613.254.9643 Fax: 613.254.5867 www.novatech-eng.com

Attachment 1

Sanitary Drainage Areas and Land Use



LEGEND

- EXISTING / PROPOSED HIGH DENSITY RESIDENTIAL
- EXISTING / PROPOSED MEDIUM DENSITY RESIDENTIAL
- EXISTING / PROPOSED LOW DENSITY RESIDENTIAL
- EXISTING / PROPOSED COMMERCIAL
- EXISTING / PROPOSED INSTITUTIONAL
- OTHER LANDS (OPEN SPACE, PARKS, AND SWMFS)
- SOUTH NEPEAN COLLECTOR PHASE 1
- SOUTH NEPEAN COLLECTOR PHASE 2
- SOUTH NEPEAN COLLECTOR PHASE 3
- 80 SOUTH NEPEAN COLLECTOR NODE ID

NOVATECH
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SOUTH NEPEAN COLLECTOR SEWER

SANITARY DRAINAGE AREAS AND LAND USE

SCALE 1:20 000

DATE MAY 2016 | JOB 115075 | FIGURE FIG. 1

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Attachment 2

Sewer Flow Calculations

PROJECT #: 115075
DESIGNED BY: CMS
CHECKED BY: MJP
DATE: August 20, 2015

SANITARY SEWER DESIGN SHEET

South Nepean Collector - Phase 2 & 3

Theoretical Current Operational Peak Wastewater Flow

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Engineers, Planners & Landscape Architects

Location			Areas				Population				Individual Design Flows			Cumulative Design Flows				
Area I.D.	Existing Land Use	Upstream Node	Gross Commercial Area (ha)	Gross Institutional Area (ha)	Gross Residential Area (ha)	Total Gross Area (ha)	Residential Populatation Density (people / ha)	Individual Residential Population	Cumulative Residential Population	Residential Peaking Factor (Harmon Eqn[1])	Commercial Peak Flow Rate[2] (17,000 L/ha/d) (L/s)	Institutional Peak Flow Rate[2] (10,000 L/ha/d) (L/s)	Infiltration / Inflow Rate (0.05 L/s/ha) (L/s)	Commercial (L/s)	Institutional (L/s)	Infiltration / Inflow (L/s)	Residential Peak Flow Rate (300 L/cap/d) (L/s)	Cumulative Peak Design Flow (L/s)
A1	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A2-A	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A2-B	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A3-A	Open Space	130				0.00					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A3-B	Institutional	130		10.30		10.30					0.0	1.2	0.5	0.0	1.2	0.5	0.0	1.7
A3-C	Medium Density Residential	130			5.19	5.19	162.0	841	841	2.71	0.0	0.0	0.3	0.0	1.2	0.8	7.9	9.9
A3-D	Commercial	130	0.58			0.58			841	2.71	0.1	0.0	0.0	0.1	1.2	0.8	7.9	10.0
A3-E	Low Density Residential	130			35.68	35.68	95.2	3397	4238	2.39	0.0	0.0	1.8	0.1	1.2	2.6	35.1	39.0
A3-F	Medium Density Residential	130			8.26	8.26	162	1338	5576	2.32	0.0	0.0	0.4	0.1	1.2	3.0	44.9	49.2
A3-G	Institutional	130		0.90		0.90			5576	2.32	0.0	0.1	0.0	0.1	1.3	3.0	44.9	49.4
A4	Low Density Residential*	130				0.00			5576	2.32	0.0	0.0	0.0	0.1	1.3	3.0	44.9	49.4
A2-C	Snow Dump Facility	120				0.00			5576	2.32	0.0	0.0	0.0	0.1	1.3	3.0	44.9	49.4
A3-H	Low Density Residential	120			6.09	6.09	95.2	580	6155	2.30	0.0	0.0	0.3	0.1	1.3	3.4	49.1	53.8
A5	Open Space	110				0.00			6155	2.30	0.0	0.0	0.0	0.1	1.3	3.4	49.1	53.8
A6-A	Open Space	100				0.00			6155	2.30	0.0	0.0	0.0	0.1	1.3	3.4	49.1	53.8
A6-B	Open Space	100				0.00			6155	2.30	0.0	0.0	0.0	0.1	1.3	3.4	49.1	53.8
A6-C	Medium Density Residential	90			4.87	4.87	162.0	789	6944	2.27	0.0	0.0	0.2	0.1	1.3	3.6	54.6	59.6
A6-D	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	0.1	1.3	3.6	54.6	59.6
A6-E	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	0.1	1.3	3.6	54.6	59.6
A7-A	Commercial	90	13.62			13.62			6944	2.27	2.7	0.0	0.7	2.8	1.3	4.3	54.6	63.0
A7-B	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	1.3	4.3	54.6	63.0
A7-C	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	1.3	4.3	54.6	63.0
A7-D	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	1.3	4.3	54.6	63.0
A7-E1/E2	Open Space	90				0.00			6944	2.27	0.0	0.0	0.0	2.8	1.3	4.3	54.6	63.0
A8-A	Commercial	80	28.45			28.45			6944	2.27	5.6	0.0	1.4	8.4	1.3	5.7	54.6	70.0
A8-B	Open Space	80				0.00			6944	2.27	0.0	0.0	0.0	8.4	1.3	5.7	54.6	70.0
A8-C	Institutional	80		10.52		10.52			6944	2.27	0.0	1.2	0.5	8.4	2.5	6.2	54.6	71.8
A8-D	Open Space	80				0.00			6944	2.27	0.0	0.0	0.0	8.4	2.5	6.2	54.6	71.8
ROW Along SNC Sewer Alignment	-	80				14.34			6944	2.27	0.0	0.0	0.7	8.4	2.5	6.9	54.6	72.5
TOTAL		***80***	***42.65***	***21.72***	***60.09***	***138.80***	***-***	***6944***	***6944***	***2.27***	***8.4***	***2.5***	***6.9***	***8.4***	***2.5***	***6.9***	***54.6***	***72.5***

Residential Land Use	Population Density (Units / ha)	Persons per Unit	Persons per ha
Low Density (singles and semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row/townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

Notes:

1. Harmon Equation = 1 + [14 / (4+(P/1000)$^{1/2}$)] x K

Where: P = population; K = correction factor = 0.6

2. Instituional / Commercial Peaking Factor = 1.0

Reported Design Flows / Assumptions:

1. Area A4: Existing single family units currently serviced by Jockvale pump station; currently not directed to SNC

PROJECT #: 115075
DESIGNED BY: CMS
CHECKED BY: MJP
DATE: August 20, 2015

SANITARY SEWER DESIGN SHEET

South Nepean Collector - Phase 2 & 3

Theoretical Future Full Service Peak Wastewater Flow

NOVATECH
Engineers, Planners & Landscape Architects

Location			Areas				Population				Individual Design Flows			Cumulative Design Flows				
Area I.D.	Existing / Proposed Land Use	Upstream Node	Gross Commercial Area (ha)	Gross Institutional Area (ha)	Gross Residential Area (ha)	Total Gross Area (ha)	Residential Populatation Density (people / ha)	Individual Residential Population	Cumulative Residential Population	Residential Peaking Factor (Harmon Eqn[1])	Commercial Peak Flow Rate[2] (50,000 L/ha/d) (L/s)	Institutional Peak Flow Rate[2] (50,000 L/ha/d) (L/s)	Infiltration / Inflow Rate (0.28 L/s/ha) (L/s)	Commercial (L/s)	Institutional (L/s)	Infiltration / Inflow (L/s)	Residential Peak Flow Rate (350 L/cap/d) (L/s)	Cumulative Peak Design Flow (L/s)
A1	Commercial	130	12.80			12.80					11.1	0.0	3.6	11.1	0.0	3.6	0.0	14.7
A2-A	Commercial	130	85.18			85.18					73.9	0.0	23.9	85.1	0.0	27.4	0.0	112.5
A2-B	Commercial	130	32.46			32.46					28.2	0.0	9.1	113.2	0.0	36.5	0.0	149.8
A3-A	Low Density Residential	130			16.18	16.18	95.2	1540	1540	3.67	0.0	0.0	4.5	113.2	0.0	41.1	22.9	177.2
A3-B	Institutional	130		10.30		10.30			1540	3.67	0.0	8.9	2.9	113.2	8.9	43.9	22.9	189.0
A3-C	Medium Density Residential	130			5.19	5.19	162.0	841	2381	3.53	0.0	0.0	1.5	113.2	8.9	45.4	34.0	201.6
A3-D	Commercial	130	0.58			0.58			2381	3.53	0.5	0.0	0.2	113.7	8.9	45.6	34.0	202.2
A3-E	Low Density Residential	130			35.68	35.68	95.2	3397	5778	3.19	0.0	0.0	10.0	113.7	8.9	55.5	74.6	252.8
A3-F	Medium Density Residential	130			8.26	8.26	162	1338	7116	3.10	0.0	0.0	2.3	113.7	8.9	57.9	89.4	269.9
A3-G	Institutional	130		0.90		0.90			7116	3.10	0.0	0.8	0.3	113.7	9.7	58.1	89.4	270.9
A4	Low Density Residential	130			34.44	34.44	95.2	3279	10395	2.94	0.0	0.0	9.6	113.7	9.7	67.8	123.7	314.9
A2-C	Commercial (ex. snow dump)	120	15.25			15.25			10395	2.94	13.2	0.0	4.3	127.0	9.7	72.0	123.7	332.4
A3-H	Low Density Residential	120			6.09	6.09	95.2	580	10974	2.91	0.0	0.0	1.7	127.0	9.7	73.7	129.6	340.0
A5	Commercial	110	17.72			17.72			10974	2.91	15.4	0.0	5.0	142.4	9.7	78.7	129.6	360.3
A6-A	Commercial	100	15.18			15.18			10974	2.91	13.2	0.0	4.3	155.5	9.7	82.9	129.6	377.8
A6-B	Institutional	100		6.05		6.05			10974	2.91	0.0	5.3	1.7	155.5	15.0	84.6	129.6	384.7
A6-C	Medium Density Residential	90			4.87	4.87	162.0	789	11763	2.88	0.0	0.0	1.4	155.5	15.0	86.0	137.4	393.9
A6-D	Low Density Residential	90			17.56	17.56	95.2	1672	13435	2.83	0.0	0.0	4.9	155.5	15.0	90.9	153.8	415.2
A6-E	Low Density Residential	90			6.94	6.94	95.2	661	14096	2.81	0.0	0.0	1.9	155.5	15.0	92.9	160.2	423.6
A7-A	Commercial	90	13.62			13.62			14096	2.81	11.8	0.0	3.8	167.4	15.0	96.7	160.2	439.2
A7-B	High Density Residential	90			11.01	11.01	135.0	1486	15582	2.76	0.0	0.0	3.1	167.4	15.0	99.8	174.3	456.4
A7-C	Medium Density Residential	90			6.97	6.97	162.0	1129	16711	2.73	0.0	0.0	2.0	167.4	15.0	101.7	184.9	468.9
A7-D	Medium Density Residential	90			11.74	11.74	162.0	1902	18613	2.68	0.0	0.0	3.3	167.4	15.0	105.0	202.4	489.7
A7-E1/E2	Medium Density Residential	90			9.24	9.24	162.0	1497	20110	2.65	0.0	0.0	2.6	167.4	15.0	107.6	215.9	505.8
A8-A	Commercial	80	28.45			28.45			20110	2.65	24.7	0.0	8.0	192.0	15.0	115.5	215.9	538.5
A8-B	High Density Residential	80			39.34	39.34	135.0	5311	25421	2.55	0.0	0.0	11.0	192.0	15.0	126.6	262.4	596.0
A8-C	Institutional	80		10.52		10.52			25421	2.55	0.0	9.1	2.9	192.0	24.1	129.5	262.4	608.1
A8-D	Low Density Residential	80			16.87	16.87	120.9	2040	27461	2.52	0.0	0.0	4.7	192.0	24.1	134.2	279.8	630.2
ROW Along SNC Sewer Alignment	-	80				14.34			27461	2.52	0.0	0.0	4.0	192.0	24.1	138.2	279.8	634.2
TOTAL		***80***	***221.24***	***27.77***	***230.38***	***493.73***	***-***	***27461***	***27461***	***2.52***	***192.0***	***24.1***	***134.2***	***192.0***	***24.1***	***138.2***	***279.8***	***634.2***

Residential Land Use	Population Density (Units / ha)	Persons per Unit	Persons per ha
Low Density (singles and semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row/townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

Notes:

1. Harmon Equation = 1 + [14 / (4+(P/1000)$^{1/2}$)] x K

Where: P = population; K = correction factor = 1.0

2. Instituional / Commercial Peaking Factor = 1.5

Reported Design Flows / Assumptions:

1. Area A4: Existing single family units currently serviced by Jockvale pump station to be redirected to SNC

2. Area A8-D: proposed 600 medium density residential units

THIS PRIOR NOVETECH SNC DESIGN SHEET HAD DESIGN FLOWS AT 423.6 L/S AFTER AREA ID "A6-E'.

THE DSEL EVALUATION WITH NEW PARAMETERS AT THIS SAME NODE WITH CONSERVANCY WEST AND EAST INCLUDED IS ~401.05 < 423.6 L/S

Attachment 3

Sanitary Sewer Design Sheets (Phase 2)

SOUTH NEPEAN COLLECTOR (PHASE 2)
SANITARY SEWER DESIGN SHEET

MAY 26, 2016
JOB# 115075

NOVATECH
Engineers, Planners & Landscape Architects

LOCATION			Area					Population				Individual Design Flows			Cumulative Design Flows					PROPOSED SEWER						
From MH	To MH	Upstream Node	Gross Commercial Area (ha)	Gross Institutional Area (ha)	Gross Residential Area (ha)	Right-of-Way (ha)	Total Gross Area (ha)	Residential Population Density (people / ha)	Individual Residential Population	Cumulative Residential Population	Residential Peaking Factor (Harmon Eqn[1])	Commercial Peak Flow Rate[2] (50,000 L/ha/d) (L/s)	Institutional Peak Flow Rate[2] (50,000 L/ha/d) (L/s)	Infiltration / Inflow Rate (0.28 L/s/ha) (L/s)	Commercial (L/s)	Institutional (L/s)	Infiltration / Inflow (L/s)	Residential Peak Flow Rate (350 L/cap/d) (L/s)	Cumulative Peak Design Flow (L/s)	Length (m)	Pipe Size (mm)	Type	Slope %	Capacity (L/s)	Full Flow Velocity (m/s)	Ratio (Q/Qfull)
MHSA 1	MHSA 2	90	192.79	17.25	174.17	0.00	384.21	1678	20110	20110	2.65	167.352	14.97	107.58	167.4	15.0	107.6	215.9	505.8	57.3	900	CONC	0.10	597.2	0.91	85%
MHSA 2	MHSA 3	90																	505.8	57.3	900	CONC	0.10	597.2	0.91	85%
MHSA 3	MHSA 4	90																	505.8	73.9	900	CONC	0.10	597.2	0.91	85%
MHSA 4	MHSA 5	90																	505.8	34.6	900	CONC	0.10	597.2	0.91	85%
MHSA 5	MHSA 6	90																	505.8	42.8	900	CONC	0.10	597.2	0.91	85%
MHSA 6	MHSA 7	90																	505.8	84.4	900	CONC	0.10	597.2	0.91	85%
MHSA 7	MHSA 8	90																	505.8	16.5	900	CONC	0.10	597.2	0.91	85%
MHSA 8	MHSA 9	90																	505.8	85.4	900	CONC	0.10	597.2	0.91	85%
MHSA 9	MHSA 10	90																	505.8	70.6	900	CONC	0.10	597.2	0.91	85%
MHSA 10	MHSA 11	90																	505.8	70.6	900	CONC	0.10	597.2	0.91	85%
MHSA 11	MHSA 12	90																	505.8	77.8	900	CONC	0.10	597.2	0.91	85%
MHSA 12	MHSA 13	90																	505.8	77.8	900	CONC	0.10	597.2	0.91	85%
MHSA 13	MHSA 14	90																	505.8	77.8	900	CONC	0.10	597.2	0.91	85%
MHSA 14	MHSA 15	90																	505.8	25.4	900	CONC	0.10	597.2	0.91	85%
MHSA 15	MHSA 16	90																	505.8	34.2	900	CONC	0.10	597.2	0.91	85%
MHSA 16	MHSA 17	90																	505.8	86.7	900	CONC	0.10	597.2	0.91	85%
MHSA 17	MHSA 18	90																	505.8	34.3	900	CONC	0.10	597.2	0.91	85%
MHSA 18	MHSA 19	90																	505.8	68.6	900	CONC	0.10	597.2	0.91	85%
MHSA 19	MHSA 20	90																	505.8	65.5	900	CONC	0.10	597.2	0.91	85%
MHSA 20	MHSA 21	80	221.24	27.77	230.38	14.34	493.73	256	7351	27461	2.52	192.049	24.11	138.24	192.0	24.1	138.2	279.8	634.2	18.2	1050	CONC	0.10	900.9	1.01	70%
MHSA 21	MHSA 22	80																	634.2	81.9	1050	CONC	0.10	900.9	1.01	70%
MHSA 22	MHSA 23	80																	634.2	84.7	1050	CONC	0.10	900.9	1.01	70%
MHSA 23	MHSA 24	80																	634.2	77.4	1050	CONC	0.10	900.9	1.01	70%
MHSA 24	MHSA 25	80																	634.2	45.5	1050	CONC	0.10	900.9	1.01	70%
MHSA 25	MHSA 26	80																	634.2	35.8	1050	CONC	0.10	900.9	1.01	70%
MHSA 26	MHSA 27	80																	634.2	83.3	1050	CONC	0.10	900.9	1.01	70%
MHSA 27	MHSA 28	80																	634.2	74.4	1050	CONC	0.10	900.9	1.01	70%
MHSA 28	MHSA 29	80																	634.2	77.3	1050	CONC	0.10	900.9	1.01	70%
MHSA 29	MHSA 30	80																	634.2	83.8	1050	CONC	0.10	900.9	1.01	70%
MHSA 30	MHSA 31	80																	634.2	42.3	1050	CONC	0.10	900.9	1.01	70%
MHSA 31	MHSA 32	80																	634.2	100.6	1050	CONC	0.10	900.9	1.01	70%
MHSA 32	MHSA 33	80																	634.2	13.9	1050	CONC	0.10	900.9	1.01	70%
MHSA 33	MHSA 34	80																	634.2	99.9	1050	CONC	0.10	900.9	1.01	70%
MHSA 34	MHSA 35	80																	634.2	99.9	1050	CONC	0.10	900.9	1.01	70%
MHSA 35	MHSA 36	80																	634.2	88.7	1050	CONC	0.10	900.9	1.01	70%
MHSA 36	MHSA 37	80																	634.2	88.8	1050	CONC	0.10	900.9	1.01	70%
MHSA 37	MHSA 38	80																	634.2	90.3	1050	CONC	0.10	900.9	1.01	70%
MHSA 38	MHSA 39	80																	634.2	87.5	1050	CONC	0.10	900.9	1.01	70%

Design Parameters:

Residential Land Use	Population Density (Units / ha)	Persons per Unit	Persons per ha
Low Density (singles / semis)	26 – 28 (28 used)	2.7 – 3.4 (3.4 used)	95.2
Medium Density (row / townhouse)	50 – 60 (60 used)	2.7	162.0
High Density (apartments)	60 – 75 (75 used)	1.8	135.0

Notes:

1. Harmon Equation = $1 + [14 / (4+(P/1000)^{1/2})] \times K$

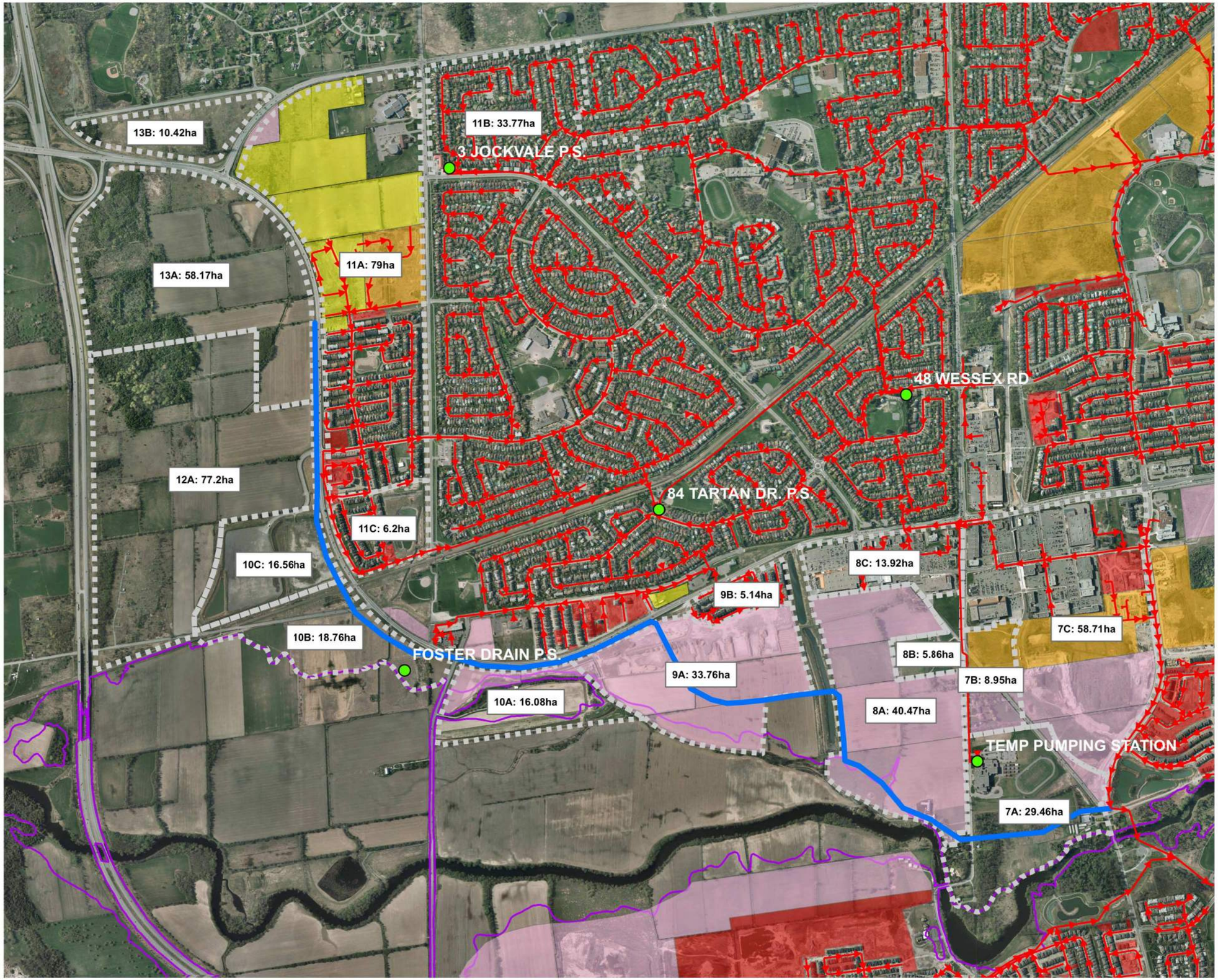
Where: P = population; K = correction factor = 1.0

2. Instituional / Commercial Peaking Factor = 1.5

Reported Design Flows / Assumptions:

1. Area A4: Existing single family units currently serviced by Jockvale pump station to be redirected to SNC

2. Area A8-D: proposed 600 medium density residential units



Ottawa

City of Ottawa
South Nepean Collector

Figure 01
Existing Sanitary Network and Collection Areas

- Pump Station
- Existing Sanitary Main (With Flow Direction)
- Proposed Alignment for South Nepean Collector
- Collection Area

DEVELOPMENT STATUS

- Registered
- Draft Approved
- Pending
- No Plan
- Floodplain

NOT TO SCALE

MAP DRAWING INFORMATION:
DATA PROVIDED BY THE CITY OF OTTAWA

MAP CREATED BY: BC
MAP CHECKED BY: MBM
MAP PROJECTION: NO PROJECTION

FILE LOCATION: \\Dillon.ca\dillon_dfs\Ottawa\Ottawa CA\CAD\2011\115681\Design_GIS\MXD\Figure01c_ExistingSanitaryNetwork.mxd

DILLON CONSULTING

PROJECT: 11-5681
STATUS: FINAL
DATE: 18/07/12

Table 5.1: Allocation of Commercial/Institutional and Residential Demands to SNC by Collection Area

Collection Area	Discharging Node	Estimated from GIS			City of Ottawa VURL Data			Other Space [1] (ha)	Population (PE)	Residential Density (PE/net ha)	Comments	Additional Source(s)
		Gross Institutional/Commercial (ha)	Gross Residential (ha)	Gross Area (ha)	Net Residential (ha)	Units (#)	Unit Density (#/ha)					
7A	70	13.5	7.4	29.5	4.0	605	0.3	9.1	1637	4.25	Flow calculations include St Joseph H.S. Pump Station firm capacity of 7.0 L/s Additional 600 units (TAC)	3.4ppu (TAC)
7B		0.0	9.24	9.24	6.23	1474	136.7	3.0	3321	638.8	Population from split VURL allocated by area. VURL parcel id 323 - inconsistency between net and gross reported area.	2.7ppu (TAC)
8A		0.0	40.0	40.0	24.1	4462	185.1	15.9	12047.4	499.9		2.7ppu (TAC)
8B		5.9	0.0	5.9	0.0	0	0	0.0			Future Commercial area	
8C		13.9	0.0	13.9	0.0	0	0	0.0			Commercial area includes Home Depot	
9A	80	0.0	33.8	33.8	18.6	635	34.1	15.2	2210	116.2		3.4ppu (TAC)
10A	90	0.0	16.1	16.1	9.7	451	28.0	6.4	1533.4	158.0	Assume net population = 60% gross.	3.4ppu (TAC)
10B	100	18.8	0.0	35.3	0.0	0	0	16.5			Allocated as potential future I/C use as directed by TAC	
10C	110	16.6	0.0	35.3	0.0	0	0	18.7			Area includes current Municipal Snow Dump. Flow allowance is made for potential future I/C use	
11C		0.0	6.2	6.2	Note 2			2.5	306	82.7	This area is south of '11 block' in the existing development	From IBI Apr 2010 Report Figure 1
11A	120	12.5	66.5	79.0				26.6	3923	98.3	Institutional includes 4.38ha church site and 6.89 ha institution at northeast corner, as well and Claridge Commercial (0.56ha) and DCR/Phoenix Commercial (0.64ha)	From IBI Apr2010 Report Figure 1
11B		0.0	37.0	37.0				14.8	1550	69.8	Presently serviced by Jockvale pump station; to be redirected to SNC.	Estimated from 2011 Census Block data
12A		77.2	0.0	77.2				0.0			Allow sanitary peak flow 79.0 L/s	Novatech, Employment Lands Report, Revised Jan 2012
13A	130	58.5	0.0	58.5				0.0			Allow sanitary peak flow 62.8 L/s plus Collection Area 13B, total 82.2 L/s	
13B		12.5	0.0	12.5				0.0			Allow sanitary peak flow 19.4 L/s; gravity discharge to Collection Area 13A	IBI/Novatech

Notes:
1. Other space includes other residential space accounting for the difference between gross area (measured with GIS) and net area (provided in VURL data), such as sidewalks, roads, greenspace, etc.
2. Collection Area 11A and 11B population and land use as identified under Additional Source(s). Other space reported as 60% of gross residential area, consistent with VURL average.

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CITY OF OTTAWA

2012 Operational current day

SOUTH NEPEAN COLLECTOR SEWER

SANITARY SEWER DESIGN SHEET - Operational Service (Average Flow Design Parameters)

TRIBUTARY AREA		LOCATION		AREA (ha)							INDIVIDUAL		CUMULATIVE		RESIDENTIAL		COMMERCIAL & INSTITUTION			INFIL. INFLOW	PEAK DESIGN	PROPOSED SEWER									OPERATIONAL DESIGN	
	Design Factors	FROM	TO	Gross ICI	Net ICI	Other ICI space (Green, Sidewalks, roads)	Gross RESIDENTIAL Area	Net Residential Area	Other Res (Green, Sidewalks, roads)	TOTAL AREA (Gross ICI plus Gross Residential)	POP	DENSITY	POP	AREA	PEAKING FACTOR	RESIDENT. FLOW	PEAKING FACTOR	CUM. AREA	I.C.I. FLOW (l/s)	Q(p)	FLOW Q(d)	LENGTH	GROUND ELEVATION	DEPTH OF COVER	PIPE SIZE	INVERT 1	INVERT 2	PIPE TYPE	GRADE	CAPACITY	Q(d)/Q(c)	VELOCITY at capacity	DEPTH	VELOCITY
												(po./ha.)		(ha.)		(L/s)				(L/s)	(L/s)	(m)	(m)	(m)	(m)	(m)	(m)			(L/s)		(m/s)	(m)	(m/s)
13A	1			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		0	0.0	4.50	0.00	1.00	0.00	0.00	0.00	0.00												
13B	1		Node 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		0	0.0	4.50	0.00	1.00	0.00	0.00	0.00	0.00		95.14	5.43	0.750		88.96						
12A	1	Node 130		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		0	0.0	4.50	0.00	1.00	0.00	0.00	0.00	0.00												
11A	1			12.5	9.4	3.1	66.5	8.0	58.5	79.0	1196	148.76	1196	79.0	3.75	15.57	1.00	12.50	2.00	3.95	21.52												
11B	1		Node 120	0.0	0.0	0.0	37.0	22.2	14.8	37.0	1550	69.82	2746	116.0	3.47	33.13	1.00	12.50	2.00	5.80	40.93	531.89	93.60	4.42	0.750	88.96	88.43	Conc.	0.10%	353.24	0.13	0.80	0.20	0.58
11C	1	Node 120		0.0	0.0	0.0	6.2	3.7	2.5	6.2	306	82.26	3052	122.2	3.44	36.41	1.00	12.50	2.00	6.11	44.52												
10C	1		Node 110	16.6	12.5	4.2	0.0	0.0	0.0	16.6	0		3052	138.8	3.44	36.41	1.00	29.10	4.66	6.94	48.01	497.82	93.44	4.76	0.750	88.43	87.93	Conc.	0.10%	353.24	0.14	0.80	0.20	0.58
10B	1	Node 110	Node 100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		3052	138.8	3.44	36.41	1.00	29.10	4.66	6.94	48.01	603.17	93.03	4.95	0.750	87.93	87.33	Conc.	0.10%	353.24	0.14	0.80	0.20	0.58
10A	1	Node 100	Node 90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		3052	138.8	3.44	36.41	1.00	29.10	4.66	6.94	48.01	430.49	93.75	6.03	0.825	87.33	86.90	Conc.	0.10%	455.17	0.11	0.85	0.21	0.61
9A	1	Node 90	Node 80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		3052	138.8	3.44	36.41	1.00	29.10	4.66	6.94	48.01	1268.65	92.37	5.84	0.900	86.90	85.63	Conc.	0.10%	573.71	0.08	0.90	0.18	0.56
8A	1	Node 80		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		3052	138.8	3.44	36.41	1.00	29.10	4.66	6.94	48.01												
8B	1			5.9	4.4	1.5	0.0	0.0	0.0	5.9	0		3052	144.7	3.44	36.41	1.00	35.00	5.60	7.24	49.23												
8C	1			13.9	10.4	3.5	0.0	0.0	0.0	13.9	0		3052	158.6	3.44	36.41	1.00	48.90	7.82	7.93	52.17												
7A	1			13.5	10.1	3.4	16.0	1.4	14.6	29.5	17	12.14	3069	188.1	3.43	36.59	1.00	62.40	9.98	9.41	55.99												
7B	1		Node 70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		3069	188.1	3.43	36.59	1.00	62.40	9.98	9.41	55.99	1448.98	91.24	6.01	1.050	85.63	84.18	Conc.	0.10%	864.51	0.06	1.00	0.18	0.56
										188.1																								
										DEFAULTS																								
										q=AVERAGE DAILY FLOW	300	L/CAP.D																						
										I=UNIT OF PEAK EXTR.FLOW	0.050	L/Ha.s																						
										Mannings 'n'	0.013																							
									q=AVERAGE COMMERCIAL AND INSTITUTIONAL		0.16	L/Ha.s																						
DESIGN		DJG																												Project 11-5681				
CHECKED																																		
TODAY:		7/18/2012																																

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CITY OF OTTAWA

2012 Full Service (Peak)

SOUTH NEPEAN COLLECTOR SEWER

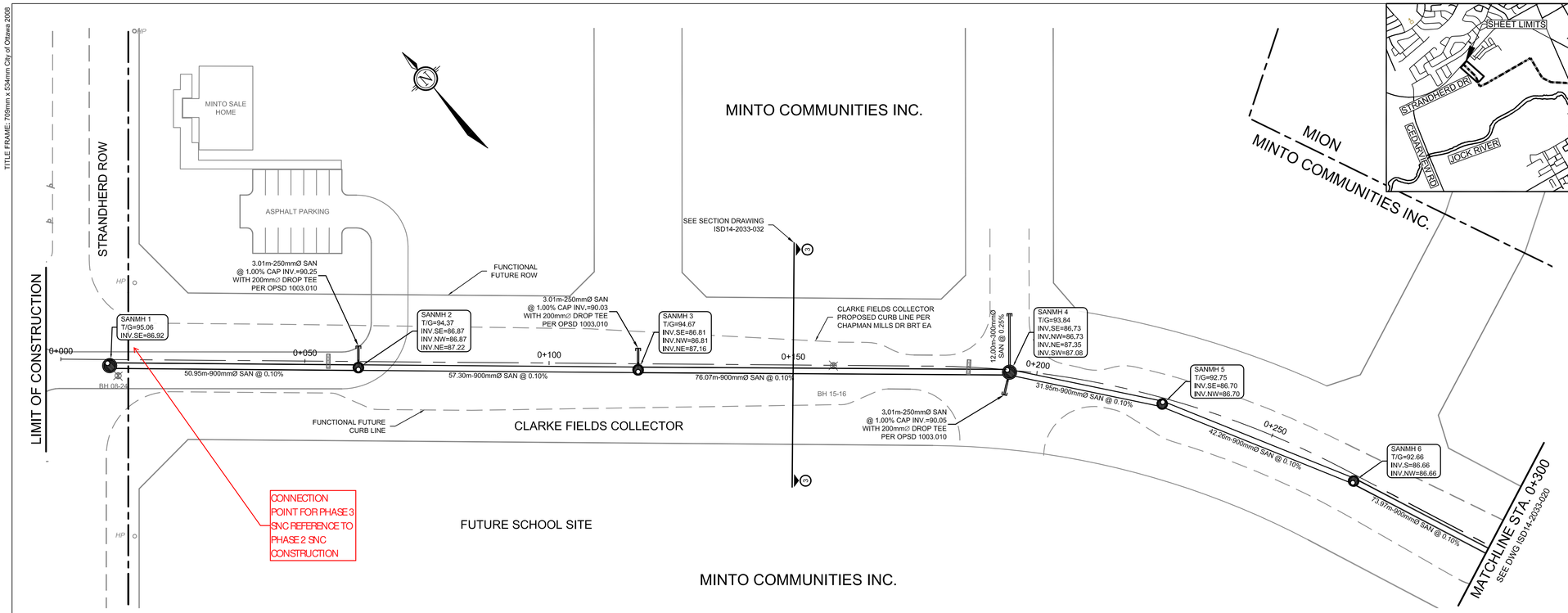
SANITARY SEWER DESIGN SHEET - Full Service (Peak Flow Design Parameters)

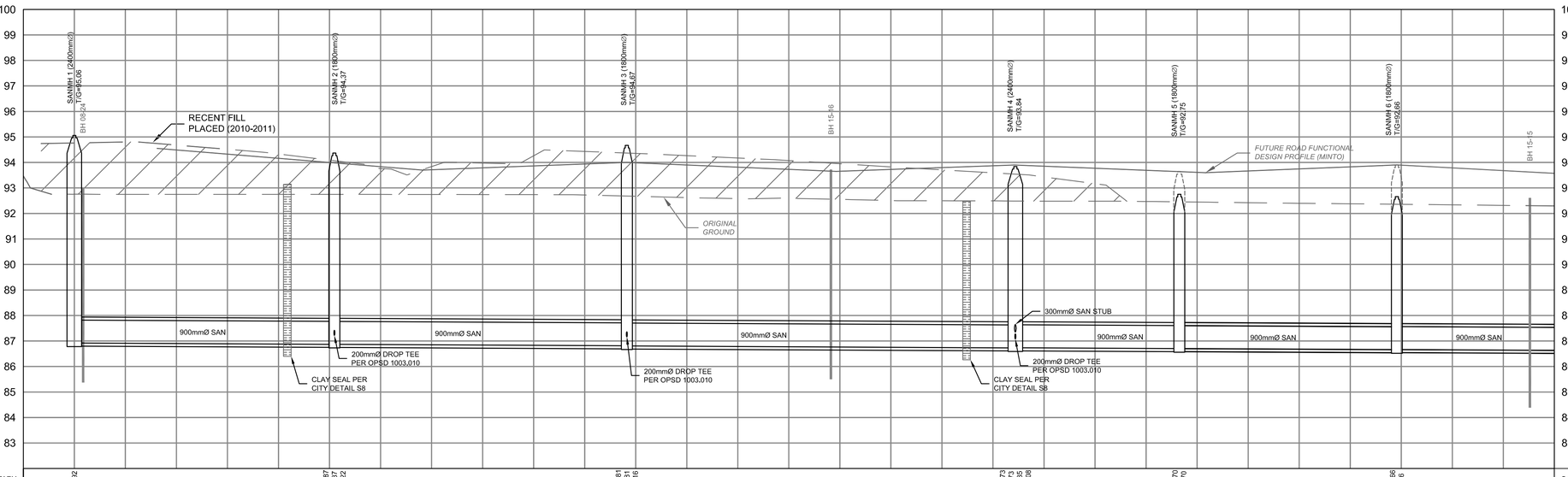
TRIBUTARY AREA		LOCATION		AREA (ha)							INDIVIDUAL	CUMULATIVE			RESIDENTIAL		COMMERCIAL & INSTITUTION			INFIL. INFLOW	PEAK DESIGN	PROPOSED SEWER									PEAK DESIGN			
	Design Factors	FROM	TO	Gross ICI	Net ICI	Other ICI space (Green, Sidewalks, roads)	Gross RESIDENTIAL Area	Net Residential Area	Other Res (Sidewalks, roads)	TOTAL AREA (Gross ICI plus Gross Residential)	POP	DENSITY	POP	Total I/C and Res AREA	PEAKING FACTOR	RESIDENT. FLOW	PEAKING FACTOR	I/C CUM. AREA	I/C FLOW (l/s)	Q(p)	FLOW Q(d)	LENGTH	GROUND ELEVATION	DEPTH OF COVER	PIPE SIZE	INVERT 1	INVERT 2	PIPE TYPE	GRADE	CAPACITY	Q(d)/Q(c)	VELOCITY at capacity	DEPTH	VELOCITY
												(pers/net ha.)		(ha.)		(L/s)				(L/s)	(L/s)	(m)	(m)	(m)	(m)	(m)	(m)			(L/s)		(m/s)	(m)	(m/s)
13A	1			58.5	43.9	14.6	0.0	0.0	0.0	58.5	0		0	58.5	4.50	0.00	1.50	58.50	50.90	16.38	67.28													
13B	1		Node 130	12.5	9.4	3.1	0.0	0.0	0.0	12.5	0		0	71.0	4.50	0.00	1.50	71.00	61.77	19.88	81.65		95.14	5.43	0.750		88.96							
12A	1	Node 130		77.2	57.9	19.3	0.0	0.0	0.0	77.2	0		0	148.2	4.50	0.00	1.50	148.20	128.93	41.50	170.43													
11A	1			12.5	9.4	3.1	66.5	39.9	26.6	79.0	3923	98.32	3923	227.2	3.34	53.09	1.50	160.70	139.81	63.62	256.52													
11B	1		Node 120	0.0	0.0	0.0	37.0	22.2	14.8	37.0	1550	69.82	5473	264.2	3.21	71.13	1.50	160.70	139.81	73.98	284.92	531.89	93.60	4.42	0.750	88.96	88.43	Conc.	0.10%	353.24	0.81	0.80	0.53	0.90
11C		Node 120		0.0	0.0	0.0	6.2	3.7	2.5	6.2	306	82.26	5779	270.4	3.19	74.59	1.50	160.70	139.81	75.71	290.11													
10C	1	Node 110	Node 110	16.6	12.5	4.2	0.0	0.0	0.0	16.6	0		5779	287.0	3.19	74.59	1.50	177.30	154.25	80.36	309.20	497.82	93.44	4.76	0.750	88.43	87.93	Conc.	0.10%	353.24	0.88	0.80	0.55	0.91
10B	1	Node 110	Node 100	18.8	14.1	4.7	0.0	0.0	0.0	18.8	0		5779	305.8	3.19	74.59	1.50	196.10	170.61	85.62	330.82	603.17	93.03	4.95	0.750	87.93	87.33	Conc.	0.10%	353.24	0.94	0.80	0.58	0.92
10A	1	Node 100	Node 90	0.0	0.0	0.0	16.1	9.7	6.4	16.1	1533	158.04	7312	321.9	3.09	91.48	1.50	196.10	170.61	90.13	352.22	430.49	93.75	6.03	0.825	87.33	86.90	Conc.	0.10%	455.17	0.77	0.85	0.55	0.95
9A	1	Node 90	Node 80	0.0	0.0	0.0	33.8	18.6	15.2	33.8	2161	116.18	9473	355.7	2.98	114.28	1.50	196.10	170.61	99.60	384.48	1268.65	92.37	5.84	0.900	86.90	85.63	Conc.	0.10%	573.71	0.67	0.90	0.55	0.97
8A	1	Node 80		0.0	0.0	0.0	40.0	24.1	15.9	40.0	12047	499.88	21520	395.7	2.62	228.45	1.50	196.10	170.61	110.80	509.85													
8B	1			5.9	4.4	1.5	0.0	0.0	0.0	5.9	0		21520	401.6	2.62	228.45	1.50	202.00	175.74	112.45	516.64													
8C	1			13.9	10.4	3.5	0.0	0.0	0.0	13.9	0		21520	415.5	2.62	228.45	1.50	215.90	187.83	116.34	532.62													
7A	1			13.5	10.1	3.4	16.5	5.2	11.3	30.0	1637	314.81	23157	445.5	2.59	242.84	1.50	229.40	199.58	124.74	567.16													
7B	1		Node 70	0.0	0.0	0.0	9.2	6.2	3.0	9.2	3980	638.84	27137	454.7	2.52	277.05	1.50	229.40	199.58	127.32	603.94	1448.98	91.24	6.01	1.050	85.63	84.18	Conc.	0.10%	864.51	0.70	1.00	0.64	1.07
							225.3	129.7		454.7	27,137.0																								
																						4,781.0												
										DEFAULTS																									
										q=AVERAGE DAILY FLOW	350	L/CAP.D																							
										I=UNIT OF PEAK EXTR.FLOW	0.280	L/Ha.s																							
										Mannings 'n'	0.013																							
									q=AVERAGE COMMERCIAL AND INSTITUTIONAL		0.58	L/Ha.s																							
DESIGN		DJG																																
CHECKED																																		
TODAY:		7/18/2012																																

DILLON CONSULTING

Project 11-5681

TITLE FRAME: 709mm x 534mm City of Ottawa 2008





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TITLE FRAME: 700mm x 534mm City of Ottawa 2008

Novatech File No. 115075

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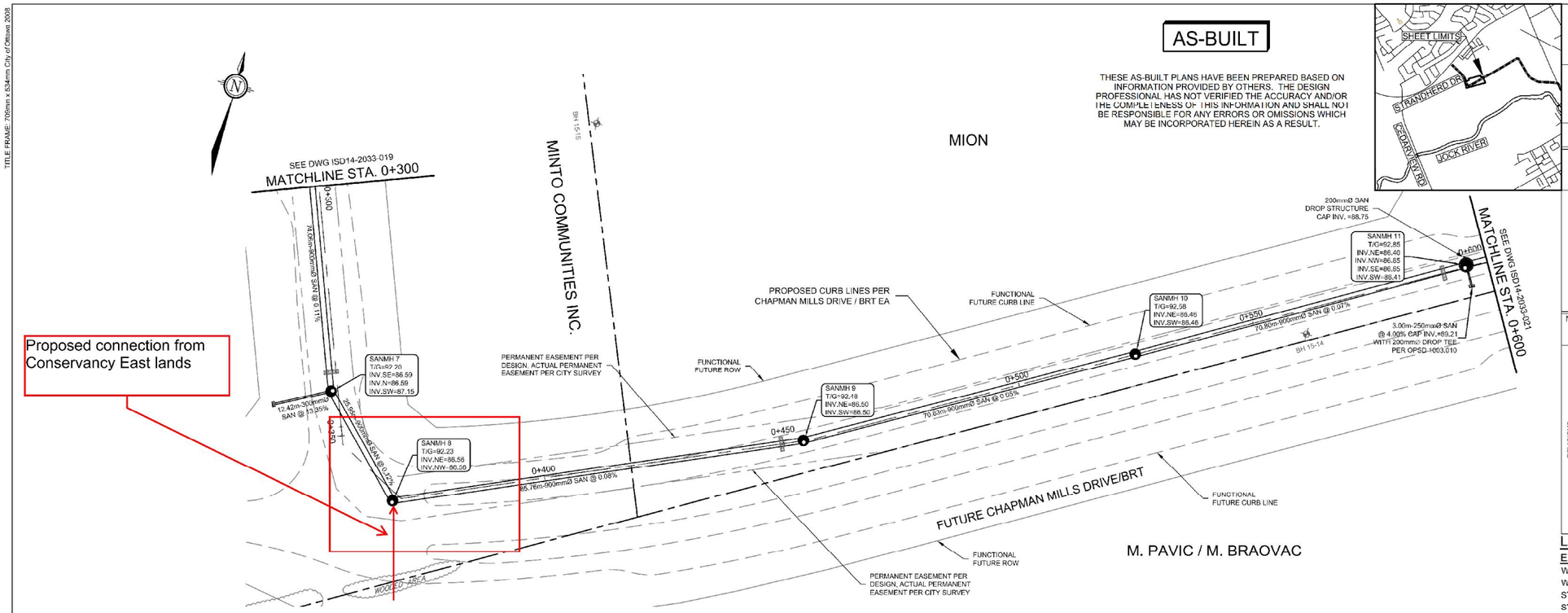
AS-BUILT

THESE AS-BUILT PLANS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE DESIGN PROFESSIONAL HAS NOT VERIFIED THE ACCURACY AND/OR THE COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.



CITY OF OTTAWA
SOUTH NEPEAN COLLECTOR (SNC)
SEWER PHASE 2 - STRANDHERD DRIVE TO JOCKVALE ROAD

PLAN AND PROFILE

STA. 0+300 TO 0+600

WAYNE NEWELL, P.Eng.	JONATHAN KNOYLE, P.Eng.
General Manager	*Senior Engineer*

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Kanata, Ontario, Canada, K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Email novatech@novatecheng.com

Ottawa

Contract No.	Dwg. No.
ISD14-2033	020

Sheet 20 of 51

Asset No.

Asset Group: ISD

Des.	Chk'd.
RJD	ERD

Dwn.	Chk'd.
NCS	RJD

Utility Circ. No. | Index No.

Const. Inspector

Scale: HORIZONTAL 1:500
0 5 10 15 20
0 1 2 3 4
VERTICAL 1:100

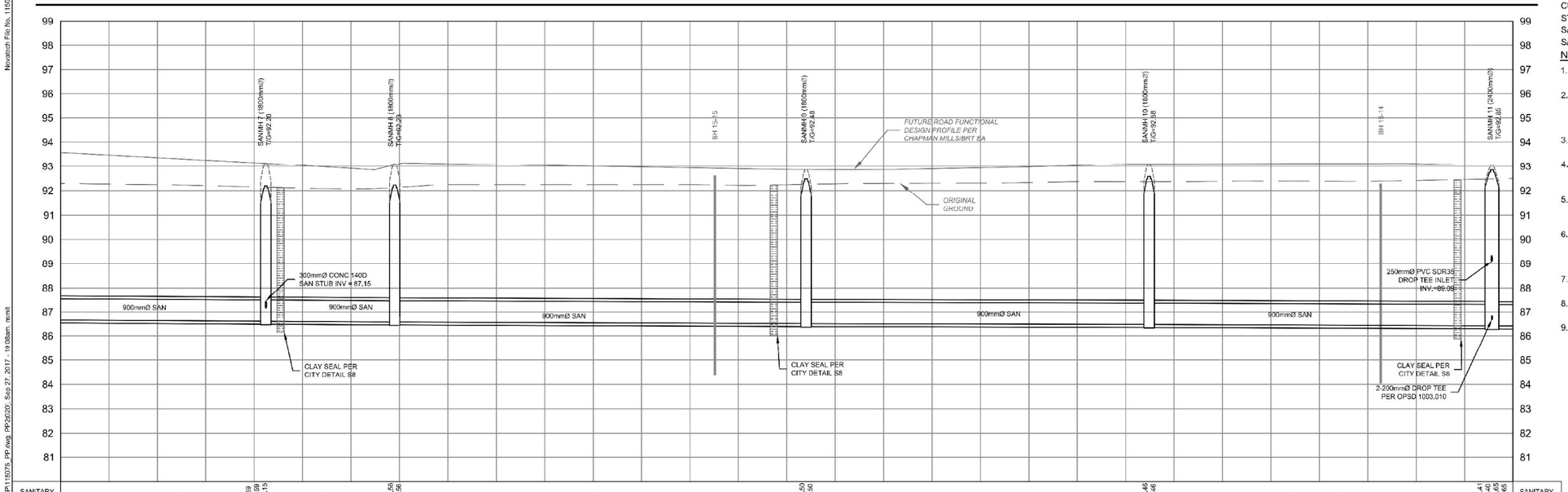
NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

REVISIONS

No.	Description	By	Date (dd/mm/yy)
1.	ISSUED FOR PRELIMINARY DESIGN CIRCULATION	ERD	21/12/15
2.	CHANGES TO ORIENTATION ACROSS KB SWM FACILITY	ERD	16/02/16
3.	ISSUED FOR PRELIMINARY DESIGN REPORT	ERD	02/03/16
4.	ISSUED FOR FINAL DESIGN CIRCULATION	ERD	20/04/16
5.	ISSUED FOR MOECC ECA APPLICATION	ERD	26/05/16
6.	ISSUED FOR TENDER	ERD	20/06/16
7.	ISSUED FOR CONSTRUCTION	ERD	30/08/16
8.	SEWER ALIGNMENT SHIFT ON GREENBANK	ERD	16/09/16
9.	REVISED PER MION SERVICING	ERD	08/12/16
10.	MINTO LANDS MANHOLE UPDATE	ERD	24/04/17
11.	ISSUED FOR AS-BUILT	ERD	26/09/17

LEGEND

EXISTING ITEMS		PROPOSED ITEMS	
WATERMAIN		SANITARY SEWER	
WATERMAIN VALVE	⊗	SANITARY MH & LID	
STORM SEWER		CULVERT	
STORM MH	○ STM	FUTURE STRUCTURE T/G ADJUSTMENT	
CATCH BASIN & LEAD	□ CB		
CULVERT			
STORM STRUCTURE	CK		
SANITARY SEWER			
SANITARY MH	● SAN		



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Design Sheet for Conservancy East detailed design.

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION									COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	UNITS Singles	UNITS Townhouse	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Ainsworth Crescent																													
	80A	81A	0.51	10	10		34	0.51	34	3.68	0.41		0.00		0.00		0.00	0.00	0.51	0.51	0.17	0.57	69.0	200	0.65	26.44	0.02	0.84	0.34
	81A	82A	0.38	11	11		38	0.89	72	3.62	0.85		0.00		0.00		0.00	0.00	0.38	0.89	0.29	1.14	70.0	250	0.25	29.73	0.04	0.61	0.29
To Sapling Grove, Pipe 82A - 85A								0.89	72				0.00		0.00		0.00			0.89									
	78A	59A	0.07	1	1		4	0.07	4	3.76	0.05		0.00		0.00		0.00	0.00	0.07	0.07	0.02	0.07	13.0	200	0.65	26.44	0.00	0.84	0.17
	59A	60A	0.45	11	11		38	0.52	42	3.66	0.50		0.00		0.00		0.00	0.00	0.45	0.52	0.17	0.67	76.0	250	0.25	29.73	0.02	0.61	0.24
	60A	61A	0.41	12	12		41	0.93	83	3.61	0.97		0.00		0.00		0.00	0.00	0.41	0.93	0.31	1.28	75.0	250	0.25	29.73	0.04	0.61	0.30
To Sapling Grove, Pipe 61A - 82A								0.93	83				0.00		0.00		0.00			0.93									
Syringa Court																													
	55A	56A	0.14	2	2		7	0.14	7	3.74	0.08		0.00		0.00		0.00	0.00	0.14	0.14	0.05	0.13	11.0	200	0.65	26.44	0.00	0.84	0.22
	56A	57A	0.42	11	11		38	0.56	45	3.66	0.53		0.00		0.00		0.00	0.00	0.42	0.56	0.18	0.72	67.0	250	0.65	47.94	0.01	0.98	0.35
	57A	58A	0.34	10	10		34	0.90	79	3.62	0.93		0.00		0.00		0.00	0.00	0.34	0.90	0.30	1.22	67.5	250	0.25	29.73	0.04	0.61	0.29
To Sapling Grove, Pipe 58A - 61A								0.90	79				0.00		0.00		0.00			0.90									
	55A	53A	0.17	3	3		11	0.17	11	3.73	0.13		0.00		0.00		0.00	0.00	0.17	0.17	0.06	0.19	45.5	200	0.65	26.44	0.01	0.84	0.24
	53A	49A	0.08	1	1		4	0.25	15	3.72	0.18		0.00		0.00		0.00	0.00	0.08	0.25	0.08	0.26	9.0	250	0.25	29.73	0.01	0.61	0.18
	49A	50A	0.44	11	11		38	0.69	53	3.65	0.63		0.00		0.00		0.00	0.00	0.44	0.69	0.23	0.85	68.5	250	0.25	29.73	0.03	0.61	0.27
	50A	51A	0.34	10	10		34	1.03	87	3.61	1.02		0.00		0.00		0.00	0.00	0.34	1.03	0.34	1.36	66.5	250	0.25	29.73	0.05	0.61	0.31
To Sapling Grove, Pipe 51A - 58A								1.03	87				0.00		0.00		0.00			1.03									
Ecology Lane																													
	880A	88A	0.44	10	10		34	0.44	34	3.68	0.41		0.00		0.00		0.00	0.00	0.44	0.44	0.15	0.55	76.0	200	0.65	26.44	0.02	0.84	0.33
Contribution From Sapling Grove, Pipe 85A - 88A								5.48	453				0.00		0.00		0.00		5.48	5.92									
	88A	91A	0.18	4	4		14	6.10	501	3.38	5.49		0.00		0.00		0.00	0.00	0.18	6.10	2.01	7.50	60.0	250	0.25	29.73	0.25	0.61	0.50
Contribution From Peninsula Road, Pipe 90A - 91A								0.78	79				0.00		0.00		0.00		0.78	6.88									
	91A	92A	0.08				0	6.96	580	3.35	6.30		0.00		0.00		0.00	0.00	0.08	6.96	2.30	8.60	62.5	250	0.25	29.73	0.29	0.61	0.52
To Conservancy Drive, Pipe 92A - 93A								6.96	580				0.00		0.00		0.00			6.96									
Anemone Mews																													
			0.09				0	0.09	0				0.00		0.00		0.00	0.00	0.09	0.09									
Contribution From Peninsula Road, Pipe 62A - 63A								0.95	90				0.00		0.00		0.00		0.95	1.04									
Contribution From Peninsula Road, Pipe 89A - 63A								0.17	14				0.00		0.00		0.00		0.17	1.21									
	63A	75A	0.09				0	1.30	104	3.59	1.21		0.00		0.00		0.00	0.00	0.09	1.30	0.43	1.64	62.5	250	0.25	29.73	0.06	0.61	0.32
To Conservancy Drive, Pipe 75A - 76A								1.30	104				0.00		0.00		0.00			1.30									
Contribution From Les Emmerson Drive (N), Pipe 70A - 72A								1.09	99				0.00		0.00		0.00		1.09	1.09									
Contribution From Les Emmerson Drive (N), Pipe 71A - 72A								2.25	216				0.00		0.00		0.00		2.25	3.34									
	72A	74A	0.27	6	6		21	3.61	336	3.45	3.75		0.00		0.00		0.00	0.00	0.27	3.61	1.19	4.94	58.5	250	0.25	29.73	0.17	0.61	0.45
Contribution From Les Emmerson Drive (S), Pipe 69A - 74A								1.30	132				0.00		0.00		0.00		1.30	4.91									
Contribution From Les Emmerson Drive (S), Pipe 73A - 74A								0.71	76				0.00		0.00		0.00		0.71	5.62									
	74A	750A	0.26	6	6		21	5.88	565	3.36	6.15		0.00		0.00		0.00	0.00	0.26	5.88	1.94	8.09	52.0	250	0.25	29.73	0.27	0.61	0.51
	750A	75A	0.01				0	5.89	565	3.36	6.15		0.00		0.00		0.00	0.00	0.01	5.89	1.94	8.09	10.5	250	0.25	29.73	0.27	0.61	0.51
To Conservancy Drive, Pipe 75A - 76A								5.89	565				0.00		0.00		0.00			5.89									
Gallium Crescent																													
	30A	31A	0.37	10	10		34	0.37	34	3.68	0.41		0.00		0.00		0.00	0.00	0.37	0.37	0.12	0.53	65.0	200	0.65	26.44	0.02	0.84	0.33

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha
Average Daily Flow =	280	l/p/day		
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha
Max Res. Peak Factor =	4.00			
Commercial/Inst./Park Peak Factor =	1.50			
Institutional =	0.32	l/s/Ha		

Industrial Peak Factor = as per MOE Graph

Extraneous Flow =	0.330	L/s/ha	
Minimum Velocity =	0.600	m/s	
Manning's n =	(Conc) 0.013	(Pvc)	0.013
Townhouse coeff=	2.7		
Single house coeff=	3.4		

Designed: A.K.	PROJECT: BARRHAVEN CONCERVANCY EAST PH2, 3, AND JOCK RIVER		
Checked: W.L.	LOCATION: City of Ottawa		
Dwg. Reference: Sanitary Drainage Plan, Dwgs. No. 110-112	File Ref: 20-1180	Date: Aug 2022	Sheet No. 1 of 6

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION									COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE					
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	UNITS Singles	UNITS Townhouse	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
	31A	32A	0.34	9	9		31	0.71	65	3.63	0.77		0.00		0.00		0.00	0.00	0.34	0.71	0.23	1.00	64.0	250	0.25	29.73	0.03	0.61	0.28
To Sapling Grove, Pipe 32A - 37A								0.71	65				0.00		0.00		0.00			0.71									
	30A	33A	0.13	2	2		7	0.13	7	3.74	0.08		0.00		0.00		0.00	0.00	0.13	0.13	0.04	0.13	9.5	200	0.65	26.44	0.00	0.84	0.22
	33A	34A	0.16	3	3		11	0.29	18	3.71	0.22		0.00		0.00		0.00	0.00	0.16	0.29	0.10	0.31	43.5	250	0.25	29.73	0.01	0.61	0.19
	34A	35A	0.12	1	1		4	0.41	22	3.70	0.26		0.00		0.00		0.00	0.00	0.12	0.41	0.14	0.40	11.5	250	0.25	29.73	0.01	0.61	0.21
	35A	36A	0.44	11	11		38	0.85	60	3.64	0.71		0.00		0.00		0.00	0.00	0.44	0.85	0.28	0.99	68.5	250	0.25	29.73	0.03	0.61	0.27
	36A	37A	0.31	9	9		31	1.16	91	3.60	1.06		0.00		0.00		0.00	0.00	0.31	1.16	0.38	1.45	61.5	250	0.25	29.73	0.05	0.61	0.31
To Mineral Street, Pipe 37A - 39A								1.16	91				0.00		0.00		0.00			1.16									
Pollination Place																													
	250A	26A	0.11	2	2		7	0.11	7	3.74	0.08		0.00		0.00		0.00	0.00	0.11	0.11	0.04	0.12	24.5	200	0.65	26.44	0.00	0.84	0.20
								0.11	7				0.00		0.00		0.00		0.00	0.11									
	26A	27A	0.09	1	1		4	0.20	11	3.73	0.13		0.00		0.00		0.00	0.00	0.09	0.20	0.07	0.20	11.0	200	0.65	26.44	0.01	0.84	0.24
	27A	28A	0.39	10	10		34	0.59	45	3.66	0.53		0.00		0.00		0.00	0.00	0.39	0.59	0.19	0.73	63.5	250	0.25	29.73	0.02	0.61	0.25
	28A	29A	0.34	10	10		34	0.93	79	3.62	0.93		0.00		0.00		0.00	0.00	0.34	0.93	0.31	1.23	62.5	250	0.25	29.73	0.04	0.61	0.29
To Sapling Grove, Pipe 29A - 32A								0.93	79				0.00		0.00		0.00			0.93									
	250A	25A	0.09	2	2		7	0.09	7	3.74	0.08		0.00		0.00		0.00	0.00	0.09	0.09	0.03	0.11	20.5	200	0.65	26.44	0.00	0.84	0.20
	25A	19A	0.04				0	0.13	7	3.74	0.08		0.00		0.00		0.00	0.00	0.04	0.13	0.04	0.13	8.0	250	0.25	29.73	0.00	0.61	0.15
								0.13	7				0.00		0.00		0.00		0.00	0.13									
	19A	20A	0.28	5	5		17	0.41	24	3.70	0.29		0.00		0.00		0.00	0.00	0.28	0.41	0.14	0.42	71.0	250	0.25	29.73	0.01	0.61	0.21
	20A	21A	0.19	4	4		14	0.60	38	3.67	0.45		0.00		0.00		0.00	0.00	0.19	0.60	0.20	0.65	54.5	250	0.25	29.73	0.02	0.61	0.24
To Sapling Grove, Pipe 21A - 29A								0.60	38				0.00		0.00		0.00			0.60									
Sapling Grove																													
Contribution From Pollination Place, Pipe 20A - 21A								0.60	38				0.00		0.00		0.00		0.60	0.60									
	21A	29A	0.23	3	3		11	0.83	49	3.65	0.58		0.00		0.00		0.00	0.00	0.23	0.83	0.27	0.85	59.0	250	0.25	29.73	0.03	0.61	0.27
Contribution From Pollination Place, Pipe 28A - 29A								0.93	79				0.00		0.00		0.00		0.93	1.76									
	29A	32A	0.25	5	5		17	2.01	145	3.56	1.67		0.00		0.00		0.00	0.00	0.25	2.01	0.66	2.33	58.5	250	0.25	29.73	0.08	0.61	0.36
Contribution From Gallium Crescent, Pipe 31A - 32A								0.71	65				0.00		0.00		0.00		0.71	2.72									
	32A	37A	0.19	4	4		14	2.91	224	3.50	2.54		0.00		0.00		0.00	0.00	0.19	2.91	0.96	3.50	58.5	250	0.25	29.73	0.12	0.61	0.40
To Mineral Street, Pipe 37A - 39A								2.91	224				0.00		0.00		0.00			2.91									
	510A	51A	0.18	3	3		11	0.18	11	3.73	0.13		0.00		0.00		0.00	0.00	0.18	0.18	0.06	0.19	48.5	200	0.65	26.44	0.01	0.84	0.24
Contribution From Syringa Court, Pipe 50A - 51A								1.03	87				0.00		0.00		0.00		1.03	1.21									
	51A	58A	0.25	5	5		17	1.46	115	3.58	1.33		0.00		0.00		0.00	0.00	0.25	1.46	0.48	1.82	58.5	250	0.25	29.73	0.06	0.61	0.33
Contribution From Syringa Court, Pipe 57A - 58A								0.90	79				0.00		0.00		0.00		0.90	2.36									
	58A	61A	0.19	4	4		14	2.55	208	3.51	2.37		0.00		0.00		0.00	0.00	0.19	2.55	0.84	3.21	58.5	250	0.25	29.73	0.11	0.61	0.39
Contribution From Ainsworth Crescent, Pipe 60A - 61A								0.93	83				0.00		0.00		0.00		0.93	3.48									
	61A	82A	0.22	4	4		14	3.70	305	3.46	3.42		0.00		0.00		0.00	0.00	0.22	3.70	1.22	4.64	60.0	250	0.25	29.73	0.16	0.61	0.44
Contribution From Ainsworth Crescent, Pipe 81A - 82A								0.89	72				0.00		0.00		0.00		0.89	4.59									
	82A	85A	0.18	4	4		14	4.77	391	3.42	4.34		0.00		0.00		0.00	0.00	0.18	4.77	1.57	5.91	58.5	250	0.25	29.73	0.20	0.61	0.47
Contribution From Meander Way, Pipe 84A - 85A								0.50	45				0.00		0.00		0.00		0.50	5.27									
	85A	88A	0.21	5	5		17	5.48	453	3.40	4.99		0.00		0.00		0.00	0.00	0.21	5.48	1.81	6.79	58.5	250	0.25	29.73	0.23	0.61	0.49
To Ecology Lane, Pipe 88A - 91A								5.48	453				0.00		0.00		0.00			5.48									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha
Average Daily Flow =	280	l/p/day		
Comm/Inst Flow =	28000	L/ha/da	0.3241	
Industrial Flow =	35000	L/ha/da	0.40509	
Max Res. Peak Factor =	4.00			
Commercial/Inst./Park Peak Factor =	1.50			
Institutional =	0.32	l/s/Ha		

Industrial Peak Factor = as per MOE Graph
Extraneous Flow = 0.330 L/s/ha
Minimum Velocity = 0.600 m/s
Manning's n = (Conc) 0.013 (Pvc) 0.013
Townhouse coeff= 2.7
Single house coeff= 3.4

LICENSED PROFESSIONAL ENGINEER W. LIU 100167932 22-08-31 PROVINCE OF ONTARIO

Designed: A.K.
Checked: W.L.
Dwg. Reference: Sanitary Drainage Plan, Dwgs. No. 110-112

PROJECT: **BARRHAVEN CONCERVANCY EAST PH2, 3, AND JOCK RIVER**
LOCATION: **City of Ottawa**
File Ref: 20-1180
Date: **Aug 2022**
Sheet No. 2 of 6

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION									COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	UNITS Singles	UNITS Townhouse	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Mineral Street																													
	430A	46A	0.29	6	6		21	0.29	21	3.70	0.25		0.00		0.00		0.00	0.00	0.29	0.29	0.10	0.35	45.5	200	0.65	26.44	0.01	0.84	0.29
Contribution From Les Emmerson Drive (S), Pipe 45A - 46A								0.87	95				0.00		0.00		0.00		0.87	1.16									
	46A	47A	0.29	6	6		21	1.45	137	3.56	1.58		0.00		0.00		0.00	0.00	0.29	1.45	0.48	2.06	62.5	250	0.25	29.73	0.07	0.61	0.34
To Conservancy Drive, Pipe 47A - 48A								1.45	137				0.00		0.00		0.00			1.45									
Contribution From Sapling Grove, Pipe 32A - 37A								2.91	224				0.00		0.00		0.00		2.91	2.91									
Contribution From Gallium Crescent, Pipe 36A - 37A								1.16	91				0.00		0.00		0.00		1.16	4.07									
	37A	39A	0.08				0	4.15	315	3.46	3.53		0.00		0.00		0.00	0.00	0.08	4.15	1.37	4.90	60.0	250	0.25	29.73	0.16	0.61	0.44
Contribution From Peninsula Road, Pipe 38A - 39A								1.05	83				0.00		0.00		0.00		1.05	5.20									
	39A	47A	0.08				0	5.28	398	3.42	4.41		0.00		0.00		0.00	0.00	0.08	5.28	1.74	6.15	62.5	250	0.25	29.73	0.21	0.61	0.47
To Conservancy Drive, Pipe 47A - 48A								5.28	398				0.00		0.00		0.00			5.28									
Les Emmerson Drive (S)																													
	44A	17A	0.39	16		16	44	0.39	44	3.66	0.52		0.00		0.00		0.00	0.00	0.39	0.39	0.13	0.65	73.0	200	0.65	26.44	0.02	0.84	0.35
To Les Emmerson Drive (N), Pipe 17A - 18A								0.39	44				0.00		0.00		0.00			0.39									
	44A	45A	0.64	27		27	73	0.64	73	3.62	0.86		0.00		0.00		0.00	0.00	0.64	0.64	0.21	1.07	111.0	200	0.65	26.44	0.04	0.84	0.41
	45A	46A	0.23	8		8	22	0.87	95	3.60	1.11		0.00		0.00		0.00	0.00	0.23	0.87	0.29	1.40	61.5	250	0.25	29.73	0.05	0.61	0.31
To Mineral Street, Pipe 46A - 47A								0.87	95				0.00		0.00		0.00			0.87									
	730A	73A	0.46	20		20	54	0.46	54	3.65	0.64		0.00		0.00		0.00	0.00	0.46	0.46	0.15	0.79	74.0	200	0.65	26.44	0.03	0.84	0.37
	73A	74A	0.25	8		8	22	0.71	76	3.62	0.89		0.00		0.00		0.00	0.00	0.25	0.71	0.23	1.13	68.5	250	0.25	29.73	0.04	0.61	0.29
To Anemone Mews, Pipe 74A - 750A								0.71	76				0.00		0.00		0.00			0.71									
	65A	66A	0.17	5		5	14	0.17	14	3.72	0.17		0.00		0.00		0.00	0.00	0.17	0.17	0.06	0.22	37.5	200	0.65	26.44	0.01	0.84	0.26
	66A	67A	0.14	3		3	9	0.31	23	3.70	0.28		0.00		0.00		0.00	0.00	0.14	0.31	0.10	0.38	11.0	250	0.25	29.73	0.01	0.61	0.20
	67A	69A	0.58	24		24	65	0.89	88	3.61	1.03		0.00		0.00		0.00	0.00	0.58	0.89	0.29	1.32	100.0	250	0.25	29.73	0.04	0.61	0.30
	69A	74A	0.41	16		16	44	1.30	132	3.57	1.53		0.00		0.00		0.00	0.00	0.41	1.30	0.43	1.95	93.0	250	0.25	29.73	0.07	0.61	0.34
To Anemone Mews, Pipe 74A - 750A								1.30	132				0.00		0.00		0.00			1.30									
Les Emmerson Drive (N)																													
	16A	17A	0.22	4	4		14	0.22	14	3.72	0.17		0.00		0.00		0.00	0.00	0.22	0.22	0.07	0.24	52.5	200	0.65	26.44	0.01	0.84	0.26
Contribution From Les Emmerson Drive (S), Pipe 44A - 17A								0.39	44				0.00		0.00		0.00		0.39	0.61									
	17A	18A	0.22	5	5		17	0.83	75	3.62	0.88		0.00		0.00		0.00	0.00	0.22	0.83	0.27	1.15	63.0	250	0.25	29.73	0.04	0.61	0.29
To Conservancy Drive, Pipe 18A - 23A								0.83	75				0.00		0.00		0.00			0.83									
	64A	70A	0.44	10	10		34	0.44	34	3.68	0.41		0.00		0.00		0.00	0.00	0.44	0.44	0.15	0.55	70.5	200	0.65	26.44	0.02	0.84	0.33
	70A	72A	0.65	19	19		65	1.09	99	3.60	1.15		0.00		0.00		0.00	0.00	0.65	1.09	0.36	1.51	119.0	250	0.25	29.73	0.05	0.61	0.31
To Anemone Mews, Pipe 72A - 74A								1.09	99				0.00		0.00		0.00			1.09									
	16A	40A	0.07	1	1		4	0.07	4	3.76	0.05		0.00		0.00		0.00	0.00	0.07	0.07	0.02	0.07	10.0	200	0.65	26.44	0.00	0.84	0.17
	40A	41A	0.36	10	10		34	0.43	38	3.67	0.45		0.00		0.00		0.00	0.00	0.36	0.43	0.14	0.59	58.0	250	0.65	47.94	0.01	0.98	0.33
	41A	42A	0.63	20	20		68	1.06	106	3.59	1.23		0.00		0.00		0.00	0.00	0.63	1.06	0.35	1.58	108.5	250	0.25	29.73	0.05	0.61	0.32
	42A	43A	0.31	7	7		24	1.37	130	3.57	1.50		0.00		0.00		0.00	0.00	0.31	1.37	0.45	1.96	64.5	250	0.25	29.73	0.07	0.61	0.34
	43A	71A	0.50	14	14		48	1.87	178	3.53	2.04		0.00		0.00		0.00	0.00	0.50	1.87	0.62	2.66	98.0	250	0.25	29.73	0.09	0.61	0.37
	71A	72A	0.38	11	11		38	2.25	216	3.51	2.46		0.00		0.00		0.00	0.00	0.38	2.25	0.74	3.20	76.5	250	0.25	29.73	0.11	0.61	0.39
To Anemone Mews, Pipe 72A - 74A								2.25	216				0.00		0.00		0.00			2.25									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha
Average Daily Flow =	280	l/p/day		
Comm/Inst Flow =	28000	L/ha/da	0.3241	
Industrial Flow =	35000	L/ha/da	0.40509	
Max Res. Peak Factor =	4.00			
Commercial/Inst./Park Peak Factor =	1.50			
Institutional =	0.32	l/s/Ha		

Industrial Peak Factor = as per MOE Graph

Extraneous Flow =		0.330	L/s/ha	
Minimum Velocity =		0.600	m/s	
Manning's n =	(Conc)	0.013	(Pvc)	0.013
Townhouse coeff=		2.7		
Single house coeff=		3.4		

Designed: A.K.

Checked: W.L.

Dwg. Reference: Sanitary Drainage Plan, Dwgs. No. 110-112

PROJECT: **BARRHAVEN CONCERVANCY EAST PH2, 3, AND JOCK RIVER**

LOCATION: **City of Ottawa**

File Ref: 20-1180

Date: **Aug 2022**

Sheet No. 3 of 6

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION									COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	UNITS Singles	UNITS Townhouse	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Deciduous Crescent																													
	8A	9A	0.44	17		17	46	0.44	46	3.66	0.55		0.00		0.00		0.00	0.00	0.44	0.44	0.15	0.69	62.0	200	0.65	26.44	0.03	0.84	0.36
	9A	11A	0.26	10		10	27	0.70	73	3.62	0.86		0.00		0.00		0.00	0.00	0.26	0.70	0.23	1.09	66.0	250	0.25	29.73	0.04	0.61	0.29
To Conservancy Drive, Pipe 11A - 15A								0.70	73				0.00		0.00		0.00			0.70									
	12A	13A	0.09	2		2	6	0.09	6	3.75	0.07		0.00		0.00		0.00	0.00	0.09	0.09	0.03	0.10	7.5	200	0.65	26.44	0.00	0.84	0.20
	13A	14A	0.38	15		15	41	0.47	47	3.66	0.56		0.00		0.00		0.00	0.00	0.38	0.47	0.16	0.71	66.0	250	0.25	29.73	0.02	0.61	0.25
	14A	15A	0.30	11		11	30	0.77	77	3.62	0.90		0.00		0.00		0.00	0.00	0.30	0.77	0.25	1.16	69.5	250	0.25	29.73	0.04	0.61	0.29
To Conservancy Drive, Pipe 15A - 18A								0.77	77				0.00		0.00		0.00			0.77									
Ephemeral Crescent																													
	2A	3A	0.16	1	1		4	0.16	4	3.76	0.05		0.00		0.00		0.00	0.00	0.16	0.16	0.05	0.10	13.0	200	0.70	27.44	0.00	0.87	0.19
			0.25	5	5		17	0.41	21				0.00		0.00		0.00		0.25	0.41									
	3A	4A	0.31	13		13	36	0.72	57	3.64	0.67		0.00		0.00		0.00	0.00	0.31	0.72	0.24	0.91	107.5	250	0.25	29.73	0.03	0.61	0.27
	4A	15A	0.35	9		9	25	1.07	82	3.61	0.96		0.00		0.00		0.00	0.00	0.35	1.07	0.35	1.31	112.0	250	0.25	29.73	0.04	0.61	0.30
To Conservancy Drive, Pipe 15A - 18A								1.07	82				0.00		0.00		0.00			1.07									
	5A	500A	0.14	6		6	17	0.14	17	3.71	0.20		0.00		0.00		0.00	0.00	0.14	0.14	0.05	0.25	21.0	200	0.65	26.44	0.01	0.84	0.26
	500A	6A	0.45	22		22	60	0.59	77	3.62	0.90		0.00		0.00		0.00	0.00	0.45	0.59	0.19	1.10	78.5	250	0.25	29.73	0.04	0.61	0.29
	6A	11A	0.48	21		21	57	1.07	134	3.57	1.55		0.00		0.00		0.00	0.00	0.48	1.07	0.35	1.90	104.5	250	0.25	29.73	0.06	0.61	0.34
To Conservancy Drive, Pipe 11A - 15A								1.07	134				0.00		0.00		0.00			1.07									
Borrisokane Road																													
	1002A	1001A	0.18	4		4	11	0.18	11	3.73	0.13		0.00		0.00		0.00	0.00	0.18	0.18	0.06	0.19	40.0	200	0.65	26.44	0.01	0.84	0.24
	1001A	10A	0.40	12		12	33	0.58	44	3.66	0.52		0.00		0.00		0.00	0.00	0.40	0.58	0.19	0.71	100.0	250	0.25	29.73	0.02	0.61	0.25
To Conservancy Drive, Pipe 10A - 11A								0.58	44				0.00		0.00		0.00			0.58									
	1004A	1003A	0.50	14		14	38	0.50	38	3.67	0.45		0.00		0.00		0.00	0.00	0.50	0.50	0.17	0.62	98.5	200	0.65	26.44	0.02	0.84	0.35
	1003A	10A	0.41	13		13	36	0.91	74	3.62	0.87		0.00		0.00		0.00	0.00	0.41	0.91	0.30	1.17	100.0	250	0.25	29.73	0.04	0.61	0.29
To Conservancy Drive, Pipe 10A - 11A								0.91	74				0.00		0.00		0.00			0.91									
Conservancy Drive																													
			12.88				1182	12.88	1182			4.21	4.21		0.00	0.58	0.58		17.67	17.67									
→	PLUG	10A	36.45				3771	49.33	4953	2.80	44.93	13.70	17.91		0.00	3.47	4.05	9.36	53.62	71.29	23.53	77.81	20.5	525	0.10	136.00	0.57	0.63	0.65
Contribution From Borrisokane Road, Pipe 1001A - 10A								0.58	44				0.00		0.00		0.00		0.58	71.87									
Contribution From Borrisokane Road, Pipe 1003A - 10A								0.91	74				0.00		0.00		0.00		0.91	72.78									
	10A	11A	0.15				0	50.97	5071	2.79	45.87		17.91		0.00		4.05	9.36	0.15	72.93	24.07	79.30	71.5	525	0.10	136.00	0.58	0.63	0.65
Contribution From Ephemeral Crescent, Pipe 6A - 11A								1.07	134				0.00		0.00		0.00		1.07	74.00									
Contribution From Deciduous Crescent, Pipe 9A - 11A								0.70	73				0.00		0.00		0.00		0.70	74.70									
	11A	15A	0.30	6	6		21	53.04	5299	2.78	47.69		17.91		0.00		4.05	9.36	0.30	75.00	24.75	81.80	59.0	525	0.10	136.00	0.60	0.63	0.66
Contribution From Deciduous Crescent, Pipe 14A - 15A								0.77	77				0.00		0.00		0.00		0.77	75.77									
Contribution From Ephemeral Crescent, Pipe 4A - 15A								1.07	82				0.00		0.00		0.00		1.07	76.84									
	15A	18A	0.12				0	55.00	5458	2.77	48.95		17.91		0.00		4.05	9.36	0.12	76.96	25.40	83.71	58.5	525	0.10	136.00	0.62	0.63	0.66
Contribution From Les Emmerson Drive (N), Pipe 17A - 18A								0.83	75				0.00		0.00		0.00		0.83	77.79									
Contribution From Park (Block 773), Pipe 210A - 18A								0.00	0.00				0.00		0.00		3.22		3.22	81.01									
	18A	23A	0.31	5	5		17	56.14	5550	2.76	49.68		17.91		0.00		4.05	9.36	0.31	81.32	26.84	85.88	76.5	525	0.10	136.00	0.63	0.63	0.66
	23A	24A	0.49	11	11		38	56.63	5588	2.76	49.98		17.91		0.00		4.05	9.36	0.49	81.81	27.00	86.34	71.0	525	0.10	136.00	0.63	0.63	0.66
	24A	47A	0.61	15	15		51	57.24	5639	2.76	50.38		17.91		0.00		4.05	9.36	0.61	82.42	27.20	86.94	106.0	525	0.10	136.00	0.64	0.63	0.67

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764 l/s/Ha
Average Daily Flow =	280	l/p/day	
Comm/Inst Flow =	28000	L/ha/da	0.3241
Industrial Flow =	35000	L/ha/da	0.40509
Max Res. Peak Factor =	4.00		
Commercial/Inst./Park Peak Factor =	1.50		
Institutional =	0.32	l/s/Ha	

Industrial Peak Factor = as per MOE Graph

Extraneous Flow =		0.330	L/s/ha	
Minimum Velocity =		0.600	m/s	
Manning's n =	(Conc)	0.013	(Pvc)	0.013
Townhouse coeff=		2.7		
Single house coeff=		3.4		

LICENSED PROFESSIONAL ENGINEER W. LIU 100167932 22-08-31 PROVINCE OF ONTARIO

Designed:	A.K.
Checked:	W.L.
Dwg. Reference:	Sanitary Drainage Plan, Dwgs. No. 110-112

PROJECT: **BARRHAVEN CONCERVANCY EAST PH2, 3, AND JOCK RIVER**

LOCATION: **City of Ottawa**

File Ref:	Date:	Sheet No.	
20-1180	**Aug 2022**		4
		of	6

SANITARY SEWER CALCULATION SHEET

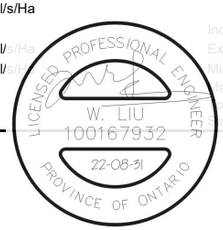
Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION									COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	UNITS Singles	UNITS Townhouse	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Contribution From Mineral Street, Pipe 39A - 47A								5.28	398				0.00		0.00		0.00		5.28	87.70									
Contribution From Mineral Street, Pipe 46A - 47A								1.45	137				0.00		0.00		0.00		1.45	89.15									
	47A	48A	0.56	14	14		48	64.53	6222	2.72	54.94		17.91		0.00		4.05	9.36	0.56	89.71	29.60	93.90	99.0	525	0.10	136.00	0.69	0.63	0.68
	48A	75A	0.42	10	10		34	64.95	6256	2.72	55.20		17.91		0.00		4.05	9.36	0.42	90.13	29.74	94.30	76.5	525	0.10	136.00	0.69	0.63	0.68
Contribution From Anemone Mews, Pipe 63A - 75A								1.30	104				0.00		0.00		0.00		1.30	91.43									
Contribution From Anemone Mews, Pipe 750A - 75A								5.89	565				0.00		0.00		0.00		5.89	97.32									
	75A	76A	0.31	7	7		24	72.45	6949	2.69	60.53		17.91		0.00		4.05	9.36	0.31	97.63	32.22	102.11	62.0	525	0.10	136.00	0.75	0.63	0.69
	76A	77A	0.39	11	11		38	72.84	6987	2.69	60.82		17.91		0.00		4.05	9.36	0.39	98.02	32.35	102.52	60.0	525	0.10	136.00	0.75	0.63	0.69
	77A	92A	0.33	9	9		31	73.17	7018	2.68	61.05		17.91		0.00		4.05	9.36	0.33	98.35	32.46	102.87	53.0	525	0.10	136.00	0.76	0.63	0.69
Contribution From Ecology Lane, Pipe 91A - 92A								6.96	580				0.00		0.00		0.00		6.96	105.31									
	92A	93A	0.51	12	12		41	80.64	7639	2.66	65.75		17.91		0.00		4.05	9.36	0.51	105.82	34.92	110.03	90.5	525	0.10	136.00	0.81	0.63	0.70
	93A	119A	0.37	6	6		21	81.01	7660	2.65	65.91		17.91		0.00	0.52	4.57	9.44	0.89	106.71	35.21	110.56	88.0	525	0.10	136.00	0.81	0.63	0.70
To Canoe Street, Pipe 119A - 120A								81.01	7660				17.91		0.00		4.57			106.71									
Meander Way																													
	84A	85A	0.50	13	13		45	0.50	45	3.66	0.53		0.00		0.00		0.00	0.00	0.50	0.50	0.17	0.70	92.5	200	0.65	26.44	0.03	0.84	0.36
To Sapling Grove, Pipe 85A - 88A								0.50	45				0.00		0.00		0.00			0.50									
	84A	86A	0.16	1	1		4	0.16	4	3.76	0.05		0.00		0.00		0.00	0.00	0.16	0.16	0.05	0.10	13.0	200	0.65	26.44	0.00	0.84	0.20
	86A	87A	0.22	4	4		14	0.38	18	3.71	0.22		0.00		0.00		0.00	0.00	0.22	0.38	0.13	0.34	50.5	250	0.65	47.94	0.01	0.98	0.28
	87A	114A	0.23	5	5		17	0.61	35	3.67	0.42		0.00		0.00		0.00	0.00	0.23	0.61	0.20	0.62	58.0	250	0.25	29.73	0.02	0.61	0.24
	114A	115A	0.07	1	1		4	0.68	39	3.67	0.46		0.00		0.00		0.00	0.00	0.07	0.68	0.22	0.69	10.0	250	0.25	29.73	0.02	0.61	0.25
	115A	116A	0.63	17	17		58	1.31	97	3.60	1.13		0.00		0.00		0.00	0.00	0.63	1.31	0.43	1.56	110.5	250	0.25	29.73	0.05	0.61	0.32
To Peninsula Road, Pipe 116A - 117A								1.31	97				0.00		0.00		0.00			1.31									
Peninsula Road																													
	89A	63A	0.17	4	4		14	0.17	14	3.72	0.17		0.00		0.00		0.00	0.00	0.17	0.17	0.06	0.22	41.0	200	0.65	26.44	0.01	0.84	0.26
To Anemone Mews, Pipe 63A - 75A								0.17	14				0.00		0.00		0.00			0.17									
	380A	38A	0.45	8	8		28	0.45	28	3.69	0.33		0.00		0.00		0.00	0.00	0.45	0.45	0.15	0.48	57.0	200	0.65	26.44	0.02	0.84	0.32
	38A	39A	0.60	16	16		55	1.05	83	3.61	0.97		0.00		0.00		0.00	0.00	0.60	1.05	0.35	1.32	108.5	250	0.25	29.73	0.04	0.61	0.30
To Mineral Street, Pipe 39A - 47A								1.05	83				0.00		0.00		0.00			1.05									
	620A	62A	0.50	13	13		45	0.50	45	3.66	0.53		0.00		0.00		0.00	0.00	0.50	0.50	0.17	0.70	83.0	200	0.65	26.44	0.03	0.84	0.36
	62A	63A	0.45	13	13		45	0.95	90	3.60	1.05		0.00		0.00		0.00	0.00	0.45	0.95	0.31	1.36	82.0	250	0.25	29.73	0.05	0.61	0.31
To Anemone Mews, Pipe 63A - 75A								0.95	90				0.00		0.00		0.00			0.95									
	89A	90A	0.41	13	13		45	0.41	45	3.66	0.53		0.00		0.00		0.00	0.00	0.41	0.41	0.14	0.67	67.0	200	0.65	26.44	0.03	0.84	0.35
	90A	91A	0.37	10	10		34	0.78	79	3.62	0.93		0.00		0.00		0.00	0.00	0.37	0.78	0.26	1.18	68.5	250	0.75	51.50	0.02	1.05	0.42
To Ecology Lane, Pipe 91A - 92A								0.78	79				0.00		0.00		0.00			0.78									
	91A	116A	0.18	4	4		14	0.18	14	3.72	0.17		0.00		0.00		0.00	0.00	0.18	0.18	0.06	0.23	58.5	200	0.65	26.44	0.01	0.84	0.26
Contribution From Meander Way, Pipe 115A - 116A								1.31	97				0.00		0.00		0.00		1.31	1.49									
	116A	117A	0.23	6	6		21	1.72	132	3.57	1.53		0.00		0.00		0.00	0.00	0.23	1.72	0.57	2.09	58.5	250	0.25	29.73	0.07	0.61	0.34
Contribution From Elation Heights, Pipe 109A - 117A								0.74	55				0.00		0.00		0.00		0.74	2.46									
	117A	118A	0.18	3	3		11	2.64	198	3.52	2.26		0.00		0.00		0.00	0.00	0.18	2.64	0.87	3.13	59.0	250	0.25	29.73	0.11	0.61	0.39
To Canoe Street, Pipe 118A - 1180A								2.64	198				0.00		0.00		0.00			2.64									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha
Average Daily Flow =	280	l/p/day		
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha
Max Res. Peak Factor =	4.00			
Commercial/Inst./Park Peak Factor =	1.50			
Institutional =	0.32	l/s/Ha		

Industrial Peak Factor = as per MOE Graph
Extraneous Flow = 0.330 L/s/ha
Minimum Velocity = 0.600 m/s
Manning's n = (Conc) 0.013 (Pvc) 0.013
Townhouse coeff= 2.7
Single house coeff= 3.4



Designed: A.K.

Checked: W.L.

Dwg. Reference: Sanitary Drainage Plan, Dwgs. No. 110-112

PROJECT: **BARRHAVEN CONCERVANCY EAST PH2, 3, AND JOCK RIVER**

LOCATION: **City of Ottawa**

File Ref: 20-1180

Date: **Aug 2022**

Sheet No. 5 of 6

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION									COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	UNITS Singles	UNITS Townhouse	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Elation Heights																													
	112A	113A	0.05	1	1		4	0.05	4	3.76	0.05		0.00		0.00		0.00	0.00	0.05	0.05	0.02	0.07	15.5	200	0.65	26.44	0.00	0.84	0.17
To Canoe Street, Pipe 113A - 118A								0.05	4				0.00		0.00		0.00			0.05									
	110A	109A	0.16	1	1		4	0.16	4	3.76	0.05		0.00		0.00		0.00	0.00	0.16	0.16	0.05	0.10	13.5	200	0.65	26.44	0.00	0.84	0.20
	109A	117A	0.58	15	15		51	0.74	55	3.64	0.65		0.00		0.00		0.00	0.00	0.58	0.74	0.24	0.89	103.0	250	0.25	29.73	0.03	0.61	0.27
To Peninsula Road, Pipe 117A - 118A								0.74	55				0.00		0.00		0.00			0.74									
Jollity Crescent																													
	104A	105A	0.39	10	10		34	0.39	34	3.68	0.41		0.00		0.00		0.00	0.00	0.39	0.39	0.13	0.53	69.0	200	0.80	29.34	0.02	0.93	0.35
To Canoe Street, Pipe 105A - 108A								0.39	34				0.00		0.00		0.00			0.39									
	106A	107A	0.15	1	1		4	0.15	4	3.76	0.05		0.00		0.00		0.00	0.00	0.15	0.15	0.05	0.10	12.0	200	0.70	27.44	0.00	0.87	0.19
	107A	108A	0.48	12	12		41	0.63	45	3.66	0.53		0.00		0.00		0.00	0.00	0.48	0.63	0.21	0.74	87.0	250	0.25	29.73	0.02	0.61	0.25
To Canoe Street, Pipe 108A - 113A								0.63	45				0.00		0.00		0.00			0.63									
Euphoria Crescent																													
	101A	102A	0.36	7	7		24	0.36	24	3.70	0.29		0.00		0.00		0.00	0.00	0.36	0.36	0.12	0.41	62.5	250	0.65	47.94	0.01	0.98	0.30
To Canoe Street, Pipe 102A - 105A								0.36	24				0.00		0.00		0.00			0.36									
	98A	99A	0.28	5	5		17	0.28	17	3.71	0.20		0.00		0.00		0.00	0.00	0.28	0.28	0.09	0.30	41.5	200	1.20	35.93	0.01	1.14	0.33
To Canoe Street, Pipe 99A - 102A								0.28	17				0.00		0.00		0.00			0.28									
Canoe Street																													
	94A	95A	0.52	3	3		11	0.52	11	3.73	0.13		0.00		0.00		0.00	0.00	0.52	0.52	0.17	0.30	38.5	200	0.65	26.44	0.01	0.84	0.28
	95A	96A	0.49	9	9		31	1.01	42	3.66	0.50		0.00		0.00		0.00	0.00	0.49	1.01	0.33	0.83	83.5	250	0.25	29.73	0.03	0.61	0.26
	96A	99A	0.10	2	2		7	1.11	49	3.65	0.58		0.00		0.00		0.00	0.00	0.10	1.11	0.37	0.95	22.0	250	0.25	29.73	0.03	0.61	0.27
Contribution From Euphoria Crescent, Pipe 98A - 99A								0.28	17				0.00		0.00		0.00		0.28	1.39									
	99A	102A	0.18	3	3		11	1.57	77	3.62	0.90		0.00		0.00		0.00	0.00	0.18	1.57	0.52	1.42	58.5	250	0.25	29.73	0.05	0.61	0.31
Contribution From Euphoria Crescent, Pipe 101A - 102A								0.36	24				0.00		0.00		0.00		0.36	1.93									
	102A	105A	0.22	4	4		14	2.15	115	3.58	1.33		0.00		0.00		0.00	0.00	0.22	2.15	0.71	2.04	58.5	250	0.25	29.73	0.07	0.61	0.34
Contribution From Jollity Crescent, Pipe 104A - 105A								0.39	34				0.00		0.00		0.00		0.39	2.54									
	105A	108A	0.21	4	4		14	2.75	163	3.54	1.87		0.00		0.00		0.00	0.00	0.21	2.75	0.91	2.78	58.5	250	0.25	29.73	0.09	0.61	0.38
Contribution From Jollity Crescent, Pipe 107A - 108A								0.63	45				0.00		0.00		0.00		0.63	3.38									
	108A	113A	0.20	4	4		14	3.58	222	3.50	2.52		0.00		0.00		0.00	0.00	0.20	3.58	1.18	3.70	60.0	250	0.25	29.73	0.12	0.61	0.41
Contribution From Elation Heights, Pipe 112A - 113A								0.05	4				0.00		0.00		0.00		0.05	3.63									
	113A	118A	0.43	10	10		34	4.06	260	3.48	2.94		0.00		0.00		0.00	0.00	0.43	4.06	1.34	4.27	74.0	250	0.25	29.73	0.14	0.61	0.43
Contribution From Peninsula Road, Pipe 117A - 118A								2.64	198				0.00		0.00		0.00		2.64	6.70									
	118A	1180A	0.16	3	3		11	6.86	469	3.39	5.15		0.00		0.00		0.00	0.00	0.16	6.86	2.26	7.42	42.5	250	0.25	29.73	0.25	0.61	0.50
	1180A	119A	0.03				0	6.89	469	3.39	5.15		0.00		0.00		0.00	0.00	0.03	6.89	2.27	7.43	20.0	250	0.25	29.73	0.25	0.61	0.50
Contribution From Conservancy Drive, Pipe 93A - 119A								81.01	7660				17.91		0.00		4.57		106.71	113.60									
	119A	120A	0.17				0	88.07	8129	2.63	69.41		17.91		0.00		4.57	9.44	0.17	113.77	37.54	116.40	75.0	525	0.10	136.00	0.86	0.63	0.71
	120A	121A	0.21	4	4		14	88.28	8143	2.63	69.51		17.91		0.00		4.57	9.44	0.21	113.98	37.61	116.57	87.5	525	0.10	136.00	0.86	0.63	0.71
	121A	Ex. MH 8						88.28	8143	2.63	69.51		17.91		0.00		4.57	9.44	0.00	113.98	37.61	116.57	10.0	525	0.10	136.00	0.86	0.63	0.71
Park (Block 773)																													
	210A	18A						0.00					0.00		0.00	3	3.22	0.52	3.22	3.22	1.06	1.58	11.5	200	0.65	26.44	0.06	0.84	0.46
To Conservancy Drive, Pipe 18A - 23A								0.00	0				0.00		0.00		3.22			3.22									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764
Average Daily Flow =	280	l/p/day	
Comm/Inst Flow =	28000	L/ha/da	0.3241
Industrial Flow =	35000	L/ha/da	0.40509
Max Res. Peak Factor =	4.00		
Commercial/Inst./Park Peak Factor =	1.50		
Institutional =	0.32	l/s/Ha	

Industrial Peak Factor = as per MOE Graph
Extraneous Flow = 0.330 L/s/ha
Minimum Velocity = 0.600 m/s
Manning's n = (Conc) 0.013 (Pvc) 0.013
Townhouse coeff= 2.7
Single house coeff= 3.4

LICENSED PROFESSIONAL ENGINEER
W. LIU
100167932
22-08-31
PROVINCE OF ONTARIO

Designed: A.K.

Checked: W.L.

Dwg. Reference: Sanitary Drainage Plan, Dwgs. No. 110-112

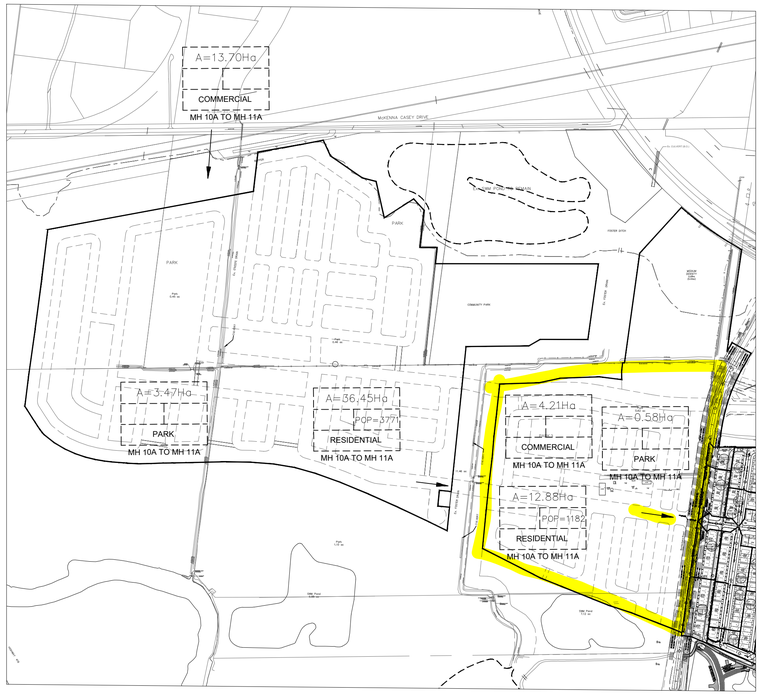
PROJECT: **BARRHAVEN CONCERVANCY EAST PH2, 3, AND JOCK RIVER**

LOCATION: **City of Ottawa**

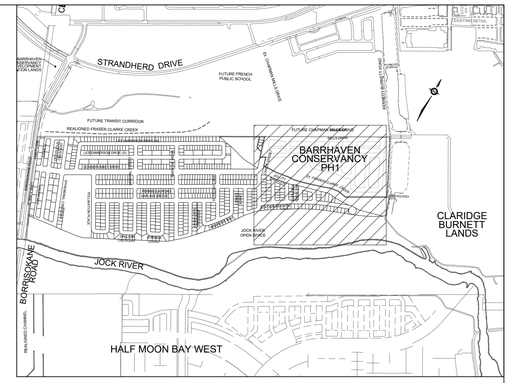
File Ref: 20-1180

Date: **Aug 2022**

Sheet No. 6 of 6



EXTERNAL SANITARY DRAINAGE PLAN
SCALE: 1:5000



LEGEND

SANITARY DRAINAGE BOUNDARY
SANITARY SUB-DRAINAGE BOUNDARY
UPSTREAM MH TO DOWNSTREAM MH — 43A - 44A
AREA IN HECTARES — 0.78
POPULATION — 61
UPSTREAM MH TO DOWNSTREAM MH — 43A-44A
AREA IN OTHER PHASES IN HECTARES — 0.78
POPULATION — 61
EXTERNAL AREA IN HECTARES — A=53.63
EXTERNAL POPULATION — POP=5739
DENSITY (PERSONS/HECTARE) — 107
EXTERNAL LAND USE — RESIDENTIAL
MAINTENANCE HOLE — MH202A
CAP
EXISTING SANITARY MAINTENANCE HOLE

TOPOGRAPHIC INFORMATION

TOPOGRAPHIC INFORMATION PROVIDED BY J.D. BARNES LIMITED, PROJECT No. 16-10-127-00, SURVEY DATED APRIL 10, 2018.

LEGAL INFORMATION

M-PLAN PROVIDED BY J.D. BARNES., PROJECT No. 16-10-127-00, RECEIVED ON AUGUST 2, 2022.

NOT FOR CONSTRUCTION

ELEVATION NOTE

ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE REFERRED TO THE PUBLISHED BENCH MARK No. 0011964U3710

ELEVATION = 71.724m

No.	BY	DATE	DESCRIPTION
7	W.L.	22-09-28	RETAINING WALL UPDATES
6	W.L.	22-09-27	WATERMAIN AND CUP UPDATES
5	W.L.	22-08-31	CITY COMMENTS AND TRANSPORATION UPDATES
4	W.L.	22-08-10	REVISED STREET NAME & LOT 99 SIGHT TRIANGLE
3	W.L.	22-06-28	3rd SUBMISSION
2	W.L.	22-04-22	2nd SUBMISSION
1	W.L.	21-12-22	1st SUBMISSION

CITY OF OTTAWA

PROJECT No. 20-1180

LICENSED PROFESSIONAL ENGINEER — W. LIU — 100167932 — 22-09-28 — PROVINCE OF ONTARIO

© DSEL

SANITARY DRAINAGE PLAN

BARRHAVEN CONSERVANCY DEVELOPMENT CORPORATION

BARRHAVEN CONSERVANCY EAST PHASE 2, 3 & JOCK RIVER

DSEL
120 Iber Road, Unit 103
Stittsville, ON K2S 1E9
Tel. (613) 836-0856
Fax. (613) 836-7183
www.DSEL.ca

DRAWN BY: A.K./R.A./V.W.	CHECKED BY: W.L.	SHEET NO.	
DESIGNED BY: W.L.	CHECKED BY: C.M.	112	
SCALE: 1:1000	DATE: DECEMBER 2021		

CITY PLAN No. 18754
CITY FILE No. D07-16-20-0021

Drainage area plan for Conservancy East detailed design.

Design Sheet for Conservancy Phase 5.

Updated draft plan submission in December 2022

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Centerline13 - 13																											
	529A	530A	0.15		16	0.15	16	3.7	0.19		0.00		0.00		0.00	0.00	0.15	0.15	0.04	0.24	20.5	200	0.65	26.44	0.01	0.84	0.26
			0.19		20	0.34	36				0.00		0.00		0.00		0.19	0.34									
	530A	534A	0.26		53	0.60	89	3.6	1.04		0.00		0.00		0.00	0.00	0.26	0.60	0.17	1.21	70.5	250	0.25	29.73	0.04	0.61	0.29
			0.22		23	0.82	112				0.00		0.00		0.00		0.22	0.82									
	534A	531A	0.26		28	1.08	140	3.6	1.62		0.00		0.00		0.00	0.00	0.26	1.08	0.31	1.92	82.0	250	0.25	29.73	0.06	0.61	0.34
To Centerline1 - 01, Pipe 531A - 532A						1.08	140				0.00		0.00		0.00			1.08									
Centerline9 - 09																											
	525A	527A	0.62		65	0.62	65	3.6	0.77		0.00		0.00		0.00	0.00	0.62	0.62	0.18	0.94	104.0	200	0.65	26.44	0.04	0.84	0.39
To Centerline6 - 06, Pipe 527A - 528A						0.62	65				0.00		0.00		0.00			0.62									
Centerline6 - 06																											
	526A	527A	0.21		22	0.21	22	3.7	0.26		0.00		0.00	0.64	0.64	0.07	0.85	0.85	0.24	0.58	63.0	200	0.65	26.44	0.02	0.84	0.34
Contribution From Centerline9 - 09, Pipe 525A - 527A						0.62	65				0.00		0.00		0.00		0.62	1.47									
	527A	528A	0.12		12	0.95	99	3.6	1.15		0.00		0.00		0.64	0.07	0.12	1.59	0.45	1.68	44.5	200	0.35	19.40	0.09	0.62	0.37
To Centerline14 - 14, Pipe 528A - 531A						0.95	99				0.00		0.00		0.64			1.59									
Centerline14 - 14																											
	523A	524A				0.00				1.47	1.47		0.00		0.00	0.48	1.47	1.47	0.42	0.90	26.5	200	0.65	26.44	0.03	0.84	0.39
			0.25		26	0.25	26				1.47		0.00		0.00		0.25	1.72									
	524A	528A	0.45		47	0.70	73	3.6	0.86		1.47		0.00		0.00	0.48	0.45	2.17	0.62	1.95	117.5	200	0.35	19.40	0.10	0.62	0.39
Contribution From Centerline6 - 06, Pipe 527A - 528A						0.95	99				0.00		0.00		0.64		1.59	3.76									
	528A	531A	0.17		18	1.82	190	3.5	2.17		1.47		0.00		0.64	0.55	0.17	3.93	1.12	3.84	48.5	200	0.35	19.40	0.20	0.62	0.48
To Centerline1 - 01, Pipe 531A - 532A						1.82	190				1.47		0.00		0.64			3.93									
Centerline8 - 08																											
	533A	522A	0.16		14	0.16	14	3.7	0.17		0.00		0.00		0.00	0.00	0.16	0.16	0.05	0.21	40.5	200	0.65	26.44	0.01	0.84	0.24
	522A	520A				0.16	14	3.7	0.17		0.00		0.00		0.00	0.00	0.00	0.16	0.05	0.21	13.0	200	0.35	19.40	0.01	0.62	0.20
	520A	521A	0.86		72	1.02	86	3.6	1.01		0.00		0.00		0.00	0.00	0.86	1.02	0.29	1.30	137.0	250	0.25	29.73	0.04	0.61	0.30
To Centerline1 - 01, Pipe 521A - 531A						1.02	86				0.00		0.00		0.00			1.02									
Centerline15 - 15																											
	501A	503A	0.68		71	0.68	71	3.6	0.83		0.00		0.00		0.00	0.00	0.68	0.68	0.19	1.03	101.0	200	0.65	26.44	0.04	0.84	0.40
To Centerline4 - 04, Pipe 503A - 509A						0.68	71				0.00		0.00		0.00			0.68									
	502A	503A	0.49		51	0.49	51	3.7	0.60		0.00		0.00		0.00	0.00	0.49	0.49	0.14	0.74	21.0	200	0.65	26.44	0.03	0.84	0.37
To Centerline4 - 04, Pipe 503A - 509A						0.49	51				0.00		0.00		0.00			0.49									
Centerline4 - 04																											
Contribution From Centerline15 - 15, Pipe 501A - 503A						0.68	71				0.00		0.00		0.00		0.68	0.68									
Contribution From Centerline15 - 15, Pipe 502A - 503A						0.49	51				0.00		0.00		0.00		0.49	1.17									
	503A	509A	0.50		52	1.67	174	3.5	1.99		0.00		0.00		0.00	0.00	0.50	1.67	0.48	2.47	108.5	250	0.25	29.73	0.08	0.61	0.36
To Centerline11 - 11, Pipe 509A - 510A						1.67	174				0.00		0.00		0.00			1.67									
Centerline2 - 02																											
	507A	508A	0.41		43	0.41	43	3.7	0.51		0.00		0.00		0.00	0.00	0.41	0.41	0.12	0.63	93.5	200	0.65	26.44	0.02	0.84	0.35
To Centerline11 - 11, Pipe 508A - 509A						0.41	43				0.00		0.00		0.00			0.41									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha	Industrial Peak Factor = as per MOE Graph		
Average Daily Flow =	280	l/p/day					
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013 (Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7	
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4	

Designed: A.S.	PROJECT: **Barrhaven Conservancy East Phase 5**		
Checked: W.L./V.W.	LOCATION: **City of Ottawa**		
Dwg. Reference: Sanitary Drainage Plan, Dwgs. No.	File Ref:	Date: **01 Dec 2022**	Sheet No 1 of 2

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Centerline11 - 11																											
		0.21		22	0.21	22				0.00		0.00		0.00			0.21	0.21									
	504A	505A	0.27		28	0.48	50	3.7	0.59		0.00		0.00		0.00	0.00	0.27	0.48	0.14	0.73	85.5	200	0.65	26.44	0.03	0.84	0.36
	505A	506A	0.13		14	0.61	64	3.6	0.75		0.00		0.00		0.00	0.00	0.13	0.61	0.17	0.93	10.5	200	0.35	19.40	0.05	0.62	0.31
	506A	508A	0.17		18	0.78	82	3.6	0.96		0.00		0.00		0.00	0.00	0.17	0.78	0.22	1.18	40.0	250	0.25	29.73	0.04	0.61	0.29
Contribution From Centerline2 - 02, Pipe 507A - 508A						0.41	43				0.00		0.00		0.00		0.41	1.19									
	508A	509A	0.19		20	1.38	145	3.6	1.67		0.00		0.00		0.00	0.00	0.19	1.38	0.39	2.07	47.5	250	0.25	29.73	0.07	0.61	0.34
Contribution From Centerline4 - 04, Pipe 503A - 509A						1.67	174				0.00		0.00		0.00		1.67	3.05									
	509A	510A	0.20		21	3.25	340	3.4	3.79		0.00		0.00		0.00	0.00	0.20	3.25	0.93	4.72	48.0	250	0.25	29.73	0.16	0.61	0.44
	510A	511A	0.03		0	3.28	340	3.4	3.79		0.00		0.00		0.00	0.00	0.03	3.28	0.94	4.73	12.5	250	0.25	29.73	0.16	0.61	0.44
	511A	519A	0.09		0	3.37	340	3.4	3.79		0.00		0.00		0.00	0.00	0.09	3.37	0.96	4.76	59.5	250	0.25	29.73	0.16	0.61	0.44
To Centerline1 - 01, Pipe 519A - 521A						3.37	340				0.00		0.00		0.00			3.37									
Centerline10 - 10																											
	512A	513A	0.65		54	0.65	54	3.6	0.64		0.00		0.00		0.00	0.00	0.65	0.65	0.19	0.82	37.5	200	0.65	26.44	0.03	0.84	0.38
	513A	535A	0.23		34	0.88	88	3.6	1.03		0.00		0.00		0.00	0.00	0.23	0.88	0.25	1.28	48.0	200	0.35	19.40	0.07	0.62	0.34
To Centerline3 - 03, Pipe 535A - 518A						0.88	88				0.00		0.00		0.00			0.88									
	536A	514A	0.19		34	0.19	34	3.7	0.41		0.00		0.00		0.00	0.00	0.19	0.19	0.05	0.46	47.5	200	0.65	26.44	0.02	0.84	0.32
	514A	515A	0.15		12	0.34	46	3.7	0.55		0.00		0.00		0.00	0.00	0.15	0.34	0.10	0.64	11.0	200	0.35	19.40	0.03	0.62	0.28
	515A	519A	0.63		52	0.97	98	3.6	1.14		0.00		0.00		0.00	0.00	0.63	0.97	0.28	1.42	119.5	250	0.25	29.73	0.05	0.61	0.31
To Centerline1 - 01, Pipe 519A - 521A						0.97	98				0.00		0.00		0.00			0.97									
Centerline3 - 03																											
Contribution From Centerline10 - 10, Pipe 513A - 535A						0.88	88				0.00		0.00		0.00		0.88	0.88									
	535A	518A	0.54		45	1.42	133	3.6	1.54		0.00		0.00		0.00	0.00	0.54	1.42	0.41	1.94	109.0	250	0.25	29.73	0.07	0.61	0.34
To Centerline1 - 01, Pipe 518A - 519A						1.42	133				0.00		0.00		0.00			1.42									
Centerline1 - 01																											
		0.33		27	0.33	27				13.70	13.70		0.00	3.47	3.47		17.50	17.50									
		0.43		45	0.76	72					13.70		0.00		3.47		0.43	17.93									
	516A	518A	36.45		3771	37.21	3843	2.9	35.86		13.70		0.00		3.47	4.81	36.45	54.38	15.55	56.22	112.5	450	0.15	110.42	0.51	0.69	0.70
Contribution From Centerline3 - 03, Pipe 535A - 518A						1.42	133				0.00		0.00		0.00		1.42	55.80									
	518A	519A	0.24		25	38.87	4001	2.9	37.17		13.70		0.00		3.47	4.81	0.24	56.04	16.03	58.01	63.5	525	0.11	142.64	0.41	0.66	0.62
Contribution From Centerline11 - 11, Pipe 511A - 519A						3.37	340				0.00		0.00		0.00		3.37	59.41									
Contribution From Centerline10 - 10, Pipe 515A - 519A						0.97	98				0.00		0.00		0.00		0.97	60.38									
	519A	521A	0.19		20	43.40	4459	2.8	40.93		13.70		0.00		3.47	4.81	0.19	60.57	17.32	63.07	59.0	525	0.10	136.00	0.46	0.63	0.61
Contribution From Centerline8 - 08, Pipe 520A - 521A						1.02	86				0.00		0.00		0.00		1.02	61.59									
	521A	531A	0.20		21	44.62	4566	2.8	41.80		13.70		0.00		3.47	4.81	0.20	61.79	17.67	64.29	59.5	525	0.10	136.00	0.47	0.63	0.62
Contribution From Centerline14 - 14, Pipe 528A - 531A						1.82	190				1.47		0.00		0.64		3.93	65.72									
Contribution From Centerline13 - 13, Pipe 534A - 531A						1.08	140				0.00		0.00		0.00		1.08	66.80									
	531A	532A	0.10		0	47.62	4896	2.8	44.47		15.17		0.00		4.11	5.36	0.10	66.90	19.13	68.96	55.0	525	0.10	136.00	0.51	0.63	0.63

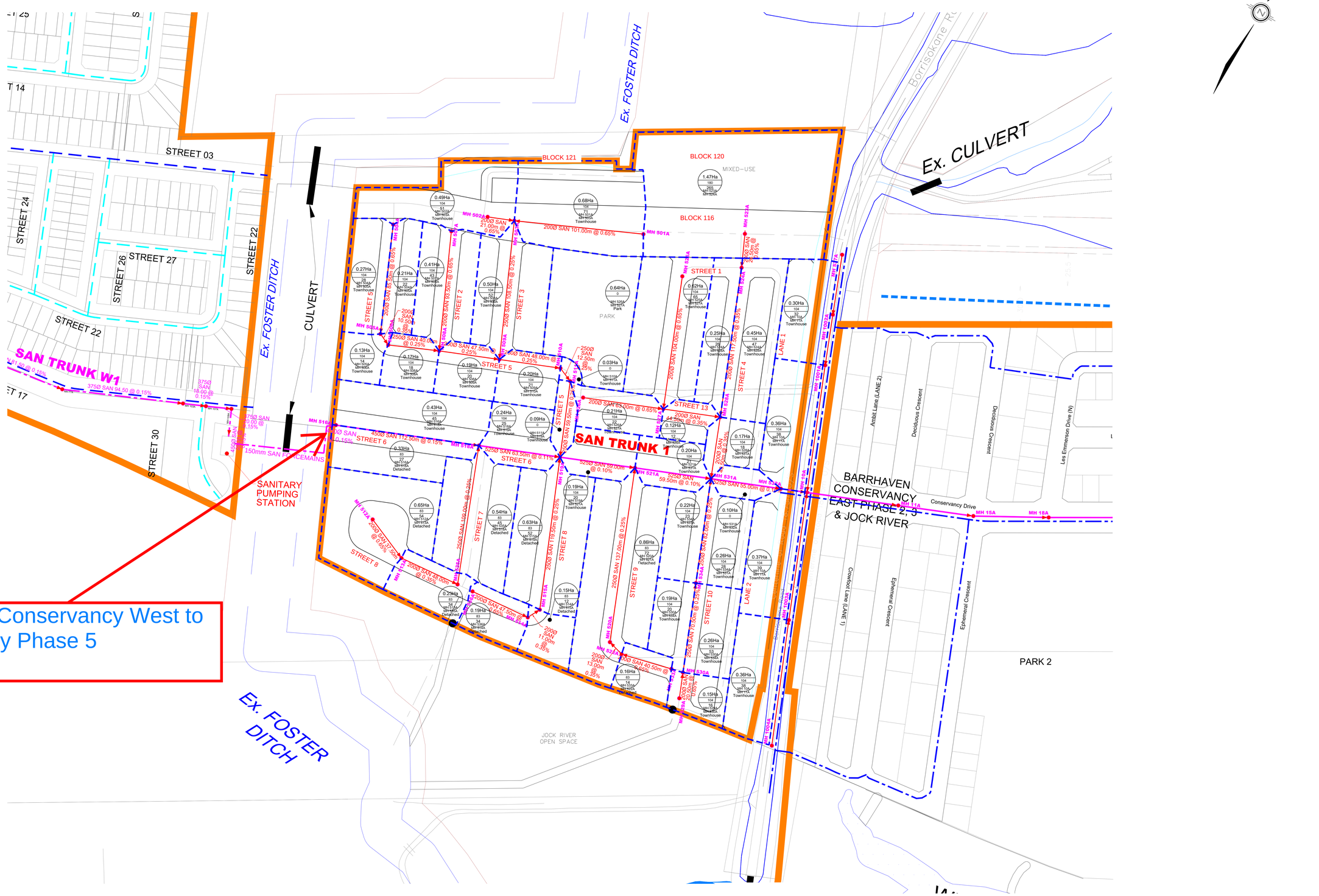
Flows projected from Conservancy West.

Lower flows that what was previously projected (77.81 L/s) in the Phase 2, 3, & 4 sanitary design sheet downstream.

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha			
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph		
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013 (Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7	
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4	

Designed: A.S.	PROJECT: Barrhaven Conservancy East Phase 5		
Checked: W.L./V.W.	LOCATION: City of Ottawa		
Dwg. Reference: Sanitary Drainage Plan, Dwgs. No.	File Ref:	Date: 01 Dec 2022	Sheet No 2 of 2



Flows from Conservancy West to Conservancy Phase 5

Design Sheet for Conservancy Phase 5.

Updated draft plan submission in December 2022

LEGEND

- SITE BOUNDARY
- SANITARY TRUNK SEWER
- SANITARY LOCAL SEWER
- EXTERNAL SANITARY TRUNK SEWER
- SANITARY MANHOLE
- SANITARY TRIBUTARY AREA
- AREA IN HECTARES
- POPULATION PER HECTARE
- POPULATION
- AREA TYPE

DSEL
120 Iber Road, Unit 103
Stittsville, ON K2S 1E9
Tel. (613) 836-0856
Fax. (613) 836-7183
www.DSEL.ca

BARRHAVEN CONSERVANCY EAST PHASE 5
SANITARY TRIBUTARY AREA
CITY OF OTTAWA

PROJECT No. :	20-1180 A-5
SCALE:	1:1000
DATE:	DECEMBER 2022
DRAWING No.	4

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
STREET '7'																											
Contribution From STREET '1', Pipe 110A - 112A						0.20	21				0.00		0.00		0.00		0.20	0.20									
Contribution From STREET '1', Pipe 111A - 112A						0.13	14				0.00		0.00		0.00		0.13	0.33									
	112A	113A	0.35		36	0.68	71	3.63	0.83		0.00		0.00		0.00	0.00	0.35	0.68	0.19	1.03	78.0	200	0.35	19.40	0.05	0.62	0.33
	113A	119A	0.38		40	1.06	111	3.58	1.29		0.00		0.00		0.00	0.00	0.38	1.06	0.30	1.59	84.5	200	0.35	19.40	0.08	0.62	0.37
To STREET '2', Pipe 119A - 120A						1.06	111				0.00		0.00		0.00			1.06									
Centerline6 - 29																											
	114A	115A	0.15		13	0.15	13	3.72	0.16		0.00		0.00	0.44	0.44	0.05	0.59	0.59	0.17	0.37	40.5	200	0.65	26.44	0.01	0.84	0.29
	115A	116A				0.15	13	3.72	0.16		0.00		0.00		0.44	0.05	0.00	0.59	0.17	0.37	10.5	200	0.35	19.40	0.02	0.62	0.24
	116A	117A				0.15	13	3.72	0.16		0.00		0.00		0.44	0.05	0.00	0.59	0.17	0.37	45.0	200	0.35	19.40	0.02	0.62	0.24
	117A	118A	0.08		7	0.23	20	3.70	0.24		0.00		0.00		0.44	0.05	0.08	0.67	0.19	0.48	11.0	200	0.35	19.40	0.02	0.62	0.26
	118A	119A	0.24		20	0.47	40	3.67	0.48		0.00		0.00		0.44	0.05	0.24	0.91	0.26	0.78	63.0	200	0.35	19.40	0.04	0.62	0.30
To STREET '2', Pipe 119A - 120A						0.47	40				0.00		0.00		0.44			0.91									
STREET '6'																											
Contribution From STREET '1', Pipe 106A - 107A						0.18	19				0.00		0.00		0.00		0.18	0.18									
	107A	108A	0.30		31	0.48	50	3.65	0.59		0.00		0.00		0.00	0.00	0.30	0.48	0.14	0.73	78.0	200	0.35	19.40	0.04	0.62	0.29
	108A	109A	0.30		31	0.78	81	3.61	0.95		0.00		0.00		0.00	0.00	0.30	0.78	0.22	1.17	78.0	200	0.35	19.40	0.06	0.62	0.34
To STREET '2', Pipe 109A - 119A						0.78	81				0.00		0.00		0.00			0.78									
STREET '5'																											
Contribution From STREET '1', Pipe 750A - 102A						0.77	80				0.00		0.00		0.00		0.77	0.77									
	102A	103A	0.17		18	0.94	98	3.60	1.14		0.00		0.00		0.00	0.00	0.17	0.94	0.27	1.41	65.0	200	0.35	19.40	0.07	0.62	0.36
Contribution From STREET '3', Pipe 850A - 103A						0.53	55				0.00		0.00		0.00		0.53	1.47									
	103A	104A	0.13		14	1.60	167	3.54	1.92		0.00		0.00		0.00	0.00	0.13	1.60	0.46	2.37	44.0	200	0.35	19.40	0.12	0.62	0.42
Contribution From STREET '4', Pipe 870A - 104A						0.42	44				0.00		0.00		0.00		0.42	2.02									
	104A	105A	0.11		11	2.13	222	3.50	2.52		0.00		0.00		0.00	0.00	0.11	2.13	0.61	3.13	47.5	200	0.35	19.40	0.16	0.62	0.45
To STREET '2', Pipe 105A - 109A						2.13	222				0.00		0.00		0.00			2.13									
STREET '4'																											
	87A	104A	0.42		44	0.42	44	3.66	0.52		0.00		0.00		0.00	0.00	0.42	0.42	0.12	0.64	102.5	200	0.65	26.44	0.02	0.84	0.35
To STREET '5', Pipe 104A - 105A						0.42	44				0.00		0.00		0.00			0.42									
	87A	88A	0.10		10	0.10	10	3.73	0.12		0.00		0.00		0.00	0.00	0.10	0.10	0.03	0.15	32.5	200	0.65	26.44	0.01	0.84	0.22
To STREET '2', Pipe 88A - 89A						0.10	10				0.00		0.00		0.00			0.10									
STREET '3'																											
	85A	103A	0.53		55	0.53	55	3.64	0.65		0.00		0.00		0.00	0.00	0.53	0.53	0.15	0.80	110.0	200	0.65	26.44	0.03	0.84	0.37
To STREET '5', Pipe 103A - 104A						0.53	55				0.00		0.00		0.00			0.53									
	85A	86A	0.07		7	0.07	7	3.74	0.08		0.00		0.00		0.00	0.00	0.07	0.07	0.02	0.10	24.0	200	0.65	26.44	0.00	0.84	0.20
To STREET '2', Pipe 86A - 88A						0.07	7				0.00		0.00		0.00			0.07									
STREET '26'																											
	123A	27A	0.64		54	0.64	54	3.65	0.64		0.00		0.00		0.00	0.00	0.64	0.64	0.18	0.82	115.0	200	0.65	26.44	0.03	0.84	0.38
To STREET '28', Pipe 27A - 32A						0.64	54				0.00		0.00		0.00			0.64									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha				
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph			
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha	
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s	
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013	(Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7		
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4		

Designed: M.S.

Checked: W.L./V.W.

Dwg. Reference: Sanitary Drainage Plan

PROJECT: **1226 - Barrhaven Conservancy West**

LOCATION: **City of Ottawa**

File Ref:

Date: **09 Dec 2022**

Sheet No 1 of 8

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
STREET '28'																											
Contribution From STREET '25', Pipe 29A - 28A						2.73	231				0.00		0.00		0.00		2.73	2.73									
	28A	27A				2.73	231	3.50	2.62		0.00		0.00		0.00	0.00	0.00	2.73	0.78	3.40	53.5	300	0.20	43.25	0.08	0.61	0.36
Contribution From STREET '26', Pipe 123A - 27A						0.64	54				0.00		0.00		0.00		0.64	3.37									
	27A	32A				3.37	285	3.47	3.21		0.00		0.00		0.00	0.00	0.00	3.37	0.96	4.17	59.0	300	0.20	43.25	0.10	0.61	0.38
To STREET '27', Pipe 32A - 122A						3.37	285				0.00		0.00		0.00			3.37									
STREET '27'																											
Contribution From STREET '25', Pipe 410A - 36A						0.24	20				0.00		0.00		0.00		0.24	0.24									
	36A	35A	0.20		17	0.44	37	3.67	0.44		0.00		0.00		0.00	0.00	0.20	0.44	0.13	0.57	59.5	250	0.25	29.73	0.02	0.61	0.24
	35A	34A	0.20		17	0.64	54	3.65	0.64		0.00		0.00		0.00	0.00	0.20	0.64	0.18	0.82	50.5	250	0.25	29.73	0.03	0.61	0.26
	34A	33A	0.15		13	0.79	67	3.63	0.79		0.00		0.00		0.00	0.00	0.15	0.79	0.23	1.01	11.0	250	0.25	29.73	0.03	0.61	0.28
	33A	122A	0.33		28	1.12	95	3.60	1.11		0.00		0.00		0.00	0.00	0.33	1.12	0.32	1.43	54.5	250	0.25	29.73	0.05	0.61	0.31
To Centerline5 - 1006, Pipe 122A - 81A						1.12	95				0.00		0.00		0.00			1.12									
Contribution From STREET '28', Pipe 27A - 32A						3.37	285				0.00		0.00		0.00		3.37	3.37									
	32A	122A	0.31		26	3.68	311	3.46	3.48		0.00		0.00		0.00	0.00	0.31	3.68	1.05	4.54	51.5	300	0.20	43.25	0.10	0.61	0.39
To Centerline5 - 1006, Pipe 122A - 81A						3.68	311				0.00		0.00		0.00			3.68									
Centerline5 - 1006																											
Contribution From STREET '27', Pipe 32A - 122A						3.68	311				0.00		0.00		0.00		3.68	3.68									
Contribution From STREET '27', Pipe 33A - 122A						1.12	95				0.00		0.00		0.00		1.12	4.80									
	122A	81A				4.80	406	3.42	4.49		0.00		0.00		0.00	0.00	0.00	4.80	1.37	5.87	130.0	300	0.20	43.25	0.14	0.61	0.42
To STREET '8', Pipe 81A - 82A						4.80	406				0.00		0.00		0.00			4.80									
STREET '8'																											
	77A	78A	0.35		30	0.35	30	3.68	0.36		0.00		0.00		0.00	0.00	0.35	0.35	0.10	0.46	58.0	200	0.65	26.44	0.02	0.84	0.32
	78A	79A	0.13		11	0.48	41	3.67	0.49		0.00		0.00		0.00	0.00	0.13	0.48	0.14	0.62	10.5	200	0.35	19.40	0.03	0.62	0.28
	79A	80A	0.16		14	0.64	55	3.64	0.65		0.00		0.00		0.00	0.00	0.16	0.64	0.18	0.83	43.0	200	0.35	19.40	0.04	0.62	0.31
	80A	81A	0.16		14	0.80	69	3.63	0.81		0.00		0.00		0.00	0.00	0.16	0.80	0.23	1.04	14.0	250	0.25	29.73	0.03	0.61	0.28
Contribution From Centerline5 - 1006, Pipe 122A - 81A						4.80	406				0.00		0.00		0.00		4.80	5.60									
	81A	82A	0.34		29	5.94	504	3.38	5.52		0.00		0.00		0.00	0.00	0.34	5.94	1.70	7.22	56.0	300	0.20	43.25	0.17	0.61	0.45
	82A	83A	0.13		11	6.07	515	3.37	5.63		0.00		0.00		0.00	0.00	0.13	6.07	1.74	7.37	11.0	300	0.20	43.25	0.17	0.61	0.45
	83A	84A	0.19		16	6.26	531	3.37	5.80		0.00		0.00		0.00	0.00	0.19	6.26	1.79	7.59	51.0	300	0.20	43.25	0.18	0.61	0.46
	84A	86A	0.20		17	6.46	548	3.36	5.97		0.00		0.00		0.00	0.00	0.20	6.46	1.85	7.82	62.5	300	0.20	43.25	0.18	0.61	0.46
To STREET '2', Pipe 86A - 88A						6.46	548				0.00		0.00		0.00			6.46									
STREET '23'																											
	37A	39A	0.20		17	0.20	17	3.71	0.20		0.00		0.00		0.00	0.00	0.20	0.20	0.06	0.26	48.0	200	0.65	26.44	0.01	0.84	0.27
To STREET '25', Pipe 39A - 40A						0.20	17				0.00		0.00		0.00			0.20									
	38A	39A	0.17		15	0.17	15	3.72	0.18		0.00		0.00		0.00	0.00	0.17	0.17	0.05	0.23	28.5	200	0.65	26.44	0.01	0.84	0.26
To STREET '25', Pipe 39A - 40A						0.17	15				0.00		0.00		0.00			0.17									
	38A	42A	0.51		43	0.51	43	3.66	0.51		0.00		0.00		0.00	0.00	0.51	0.51	0.15	0.66	79.0	200	0.65	26.44	0.02	0.84	0.35
	42A	43A	0.22		19	0.73	62	3.64	0.73		0.00		0.00		0.00	0.00	0.22	0.73	0.21	0.94	13.5	200	0.35	19.40	0.05	0.62	0.31
	43A	44A	0.46		39	1.19	101	3.59	1.18		0.00		0.00		0.00	0.00	0.46	1.19	0.34	1.52	81.0	200	0.35	19.40	0.08	0.62	0.36
	44A	45A	0.46		39	1.65	140	3.56	1.62		0.00		0.00		0.00	0.00	0.46	1.65	0.47	2.09	80.5	200	0.35	19.40	0.11	0.62	0.40
To STREET '1', Pipe 45A - 46A						1.65	140				0.00		0.00		0.00			1.65									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha				
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph			
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha	
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s	
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013	(Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7		
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4		

Designed: M.S.

Checked: W.L./V.W.

Dwg. Reference: Sanitary Drainage Plan

PROJECT: 1226 - Barrhaven Conservancy West

LOCATION: City of Ottawa

File Ref:

Date: 09 Dec 2022

Sheet No. 2 of 8

LICENSED PROFESSIONAL ENGINEER W. LIU 100167932 22-12-09 PROVINCE OF ONTARIO

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
STREET '25'																											
	41A	36A	0.24		20	0.24	20	3.70	0.24		0.00		0.00		0.00	0.00	0.24	0.24	0.07	0.31	66.5	200	0.65	26.44	0.01	0.84	0.28
To STREET '27', Pipe 36A - 35A						0.24	20				0.00		0.00		0.00			0.24									
Contribution From STREET '23', Pipe 37A - 39A						0.20	17				0.00		0.00		0.00		0.20	0.20									
Contribution From STREET '23', Pipe 38A - 39A						0.17	15				0.00		0.00		0.00		0.17	0.37									
	39A	40A	0.48		40	0.85	72	3.62	0.85		0.00		0.00		0.00	0.00	0.48	0.85	0.24	1.09	9.0	200	0.35	19.40	0.06	0.62	0.33
	40A	41A				0.85	72	3.62	0.85		0.00		0.00		0.00	0.00	0.00	0.85	0.24	1.09	127.5	200	0.35	19.40	0.06	0.62	0.33
To STREET '1', Pipe 41A - 45A						0.85	72				0.00		0.00		0.00			0.85									
	36A	31A	0.22		19	0.22	19	3.71	0.23		0.00		0.00		0.00	0.00	0.22	0.22	0.06	0.29	44.0	200	0.65	26.44	0.01	0.84	0.27
Contribution From STREET '24', Pipe 15A - 31A						0.80	69				0.00		0.00		0.00		0.80	1.02									
	31A	30A	0.22		19	1.24	107	3.59	1.24		0.00		0.00		0.00	0.00	0.22	1.24	0.35	1.60	59.0	300	0.20	43.25	0.04	0.61	0.29
Contribution From STREET '21', Pipe 25A - 30A						1.41	119				0.00		0.00		0.00		1.41	2.65									
	30A	29A	0.06		5	2.71	231	3.50	2.62		0.00		0.00		0.00	0.00	0.06	2.71	0.78	3.39	16.5	300	0.20	43.25	0.08	0.61	0.36
	29A	28A	0.02		0	2.73	231	3.50	2.62		0.00		0.00		0.00	0.00	0.02	2.73	0.78	3.40	8.0	300	0.20	43.25	0.08	0.61	0.36
To STREET '28', Pipe 28A - 27A						2.73	231				0.00		0.00		0.00			2.73									
STREET '22'																											
Contribution From STREET '9', Pipe 1000A - 3A						0.57	48				0.00		0.00		0.00		0.57	0.57									
Contribution From STREET '9', Pipe 2A - 3A						0.14	12				13.70		0.00		0.00		13.84	14.41		0.00							
	3A	4A				0.71	60	3.64	0.71		13.70		0.00		0.00	4.44	0.00	14.41	4.12	9.27	14.0	300	0.20	43.25	0.21	0.61	0.48
	4A	5A	0.20		17	0.91	77	3.62	0.90		13.70		0.00		0.00	4.44	0.20	14.61	4.18	9.52	42.5	300	0.20	43.25	0.22	0.61	0.49
	5A	6A	0.10		9	1.01	86	3.61	1.01		13.70		0.00		0.00	4.44	0.10	14.71	4.21	9.65	8.0	300	0.20	43.25	0.22	0.61	0.49
	6A	7A	0.53		44	1.54	130	3.57	1.50		13.70		0.00		0.00	4.44	0.53	15.24	4.36	10.30	87.0	300	0.20	43.25	0.24	0.61	0.50
	7A	9A	0.49		41	2.03	171	3.54	1.96		13.70		0.00		0.00	4.44	0.49	15.73	4.50	10.90	89.0	300	0.20	43.25	0.25	0.61	0.51
To STREET '24', Pipe 9A - 10A						2.03	171				13.70		0.00		0.00			15.73		0.00							
STREET '24'																											
	11A	12A	0.47		40	0.47	40	3.67	0.48		0.00		0.00		0.00	0.00	0.47	0.47	0.13	0.61	82.5	200	0.65	26.44	0.02	0.84	0.34
	12A	13A	0.09		8	0.56	48	3.65	0.57		0.00		0.00		0.00	0.00	0.09	0.56	0.16	0.73	11.5	250	0.25	29.73	0.02	0.61	0.25
	13A	14A	0.17		15	0.73	63	3.63	0.74		0.00		0.00		0.00	0.00	0.17	0.73	0.21	0.95	33.5	250	0.25	29.73	0.03	0.61	0.27
	14A	15A	0.07		6	0.80	69	3.63	0.81		0.00		0.00		0.00	0.00	0.07	0.80	0.23	1.04	16.0	250	0.25	29.73	0.03	0.61	0.28
	15A	31A				0.80	69	3.63	0.81		0.00		0.00		0.00	0.00	0.00	0.80	0.23	1.04	10.0	250	0.25	29.73	0.03	0.61	0.28
To STREET '25', Pipe 31A - 30A						0.80	69				0.00		0.00		0.00			0.80									
Contribution From STREET '9', Pipe 1A - 8A						0.44	37				0.00		0.00		0.00		0.44	0.44									
	8A	9A	0.20		17	0.64	54	3.65	0.64		0.00		0.00		0.00	0.00	0.20	0.64	0.18	0.82	62.5	200	0.35	19.40	0.04	0.62	0.31
Contribution From STREET '22', Pipe 7A - 9A						2.03	171				13.70		0.00		0.00		15.73	16.37		0.00							
	9A	10A	0.26		22	2.93	247	3.49	2.79		13.70		0.00		0.00	4.44	0.26	16.63	4.76	11.99	67.5	300	0.20	43.25	0.28	0.61	0.52
	10A	11A	0.69		58	3.62	305	3.46	3.42		13.70		0.00		0.00	4.44	0.69	17.32	4.95	12.81	117.5	300	0.20	43.25	0.30	0.61	0.53
To STREET '1', Pipe 11A - 41A						3.62	305				13.70		0.00		0.00			17.32		0.00							
STREET '21'																											
Contribution From STREET '9', Pipe 17A - 18A						0.32	28				0.00		0.00		0.00		0.32	0.32									
	18A	19A	0.62		52	0.94	80	3.62	0.94		0.00		0.00		0.00	0.00	0.62	0.94	0.27	1.21	105.5	250	0.25	29.73	0.04	0.61	0.29
	19A	20A	0.67		56	1.61	136	3.56	1.57		0.00		0.00		0.00	0.00	0.67	1.61	0.46	2.03	116.0	250	0.25	29.73	0.07	0.61	0.34
To STREET '1', Pipe 20A - 11A						1.61	136				0.00		0.00		0.00			1.61									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha				
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph			
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha	
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s	
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013	(Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7		
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4		

Designed: M.S.

Checked: W.L./V.W.

Dwg. Reference: Sanitary Drainage Plan

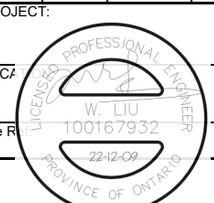
PROJECT: **1226 - Barrhaven Conservancy West**

LOCA: **City of Ottawa**

File R:

Date: **09 Dec 2022**

Sheet No 3 of 8



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SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
	20A	21A	0.61		51	0.61	51	3.65	0.60		0.00		0.00		0.00	0.00	0.61	0.61	0.17	0.78	105.5	200	0.65	26.44	0.03	0.84	0.37
	21A	22A	0.06		5	0.67	56	3.64	0.66		0.00		0.00		0.00	0.00	0.06	0.67	0.19	0.85	9.0	200	0.35	19.40	0.04	0.62	0.31
	22A	23A	0.19		16	0.86	72	3.62	0.85		0.00		0.00		0.00	0.00	0.19	0.86	0.25	1.09	33.0	250	0.25	29.73	0.04	0.61	0.29
	23A	24A	0.16		14	1.02	86	3.61	1.01		0.00		0.00		0.00	0.00	0.16	1.02	0.29	1.30	27.5	250	0.25	29.73	0.04	0.61	0.30
	24A	25A	0.24		20	1.26	106	3.59	1.23		0.00		0.00		0.00	0.00	0.24	1.26	0.36	1.59	42.0	250	0.25	29.73	0.05	0.61	0.32
	25A	30A	0.15		13	1.41	119	3.58	1.38		0.00		0.00		0.00	0.00	0.15	1.41	0.40	1.78	33.5	250	0.25	29.73	0.06	0.61	0.33
To STREET '25', Pipe 30A - 29A						1.41	119				0.00		0.00		0.00			1.41									
STREET '1'																											
Contribution From STREET '21', Pipe 19A - 20A						1.61	136				0.00		0.00		0.00		1.61	1.61									
	20A	11A	0.03		3	1.64	139	3.56	1.60		0.00		0.00		0.00	0.00	0.03	1.64	0.47	2.07	59.0	300	0.20	43.25	0.05	0.61	0.31
Contribution From STREET '24', Pipe 10A - 11A						3.62	305				13.70		0.00		0.00		17.32	18.96		0.00							
	11A	41A	0.03		3	5.29	447	3.40	4.92		13.70		0.00		0.00	4.44	0.03	18.99	5.43	14.80	60.0	375	0.15	67.91	0.22	0.61	0.49
To STREET '1', Pipe 41A - 45A						5.29	447				13.70		0.00		0.00			18.99		0.00							
STREET '1'																											
	106A	107A	0.18		19	0.18	19	3.71	0.23		0.00		0.00		0.00	0.00	0.18	0.18	0.05	0.28	37.0	200	0.65	26.44	0.01	0.84	0.27
To STREET '6', Pipe 107A - 108A						0.18	19				0.00		0.00		0.00			0.18									
	110A	112A	0.20		21	0.20	21	3.70	0.25		0.00		0.00		0.00	0.00	0.20	0.20	0.06	0.31	35.5	200	0.65	26.44	0.01	0.84	0.28
To STREET '7', Pipe 112A - 113A						0.20	21				0.00		0.00		0.00			0.20									
	111A	112A	0.13		14	0.13	14	3.72	0.17		0.00		0.00		0.00	0.00	0.13	0.13	0.04	0.21	23.0	200	0.65	26.44	0.01	0.84	0.24
To STREET '7', Pipe 112A - 113A						0.13	14				0.00		0.00		0.00			0.13									
	75A	102A	0.77		80	0.77	80	3.62	0.94		0.00		0.00		0.00	0.00	0.77	0.77	0.22	1.16	110.0	200	0.65	26.44	0.04	0.84	0.42
To STREET '5', Pipe 102A - 103A						0.77	80				0.00		0.00		0.00			0.77									
	75A	76A	0.11		11	0.11	11	3.73	0.13		0.00		0.00		0.00	0.00	0.11	0.11	0.03	0.16	23.5	200	0.65	26.44	0.01	0.84	0.23
To STREET '2', Pipe 76A - 86A						0.11	11				0.00		0.00		0.00			0.11									
Contribution From STREET '1', Pipe 11A - 41A						5.29	447				13.70		0.00		0.00		18.99	18.99		0.00							
Contribution From STREET '25', Pipe 40A - 41A						0.85	72				0.00		0.00		0.00		0.85	19.84									
	41A	45A	0.51		43	6.65	562	3.36	6.12		13.70		0.00	0.74	0.74	4.52	1.25	21.09	6.03	16.67	114.5	375	0.15	67.91	0.25	0.61	0.51
Contribution From STREET '23', Pipe 44A - 45A						1.65	140				0.00		0.00		0.00		1.65	22.74									
	45A	46A	0.18		15	8.48	717	3.31	7.69		13.70		0.00		0.74	4.52	0.18	22.92	6.56	18.77	42.5	375	0.15	67.91	0.28	0.61	0.52
	46A	47A				8.48	717	3.31	7.69		13.70		0.00		0.74	4.52	0.00	22.92	6.56	18.77	50.0	375	0.15	67.91	0.28	0.61	0.52
	47A	48A	0.52		44	9.00	761	3.30	8.14		13.70		0.00		0.74	4.52	0.52	23.44	6.70	19.36	80.5	375	0.15	67.91	0.29	0.61	0.53
	48A	76A	0.51		43	9.51	804	3.29	8.57		13.70		0.00		0.74	4.52	0.51	23.95	6.85	19.93	80.5	375	0.15	67.91	0.29	0.61	0.53
To STREET '2', Pipe 76A - 86A						9.51	804				13.70		0.00		0.74			23.95		0.00							
STREET '12'																											
	60A	98A	0.16		17	0.16	17	3.71	0.20		0.00		0.00		0.00	0.00	0.16	0.16	0.05	0.25	44.5	200	0.65	26.44	0.01	0.84	0.26
Contribution From STREET '18', Pipe 68A - 98A						0.26	27				0.00		0.00		0.00		0.26	0.42									
	98A	99A	0.18		19	0.60	63	3.63	0.74		0.00		0.00		0.00	0.00	0.18	0.60	0.17	0.91	44.0	250	0.25	29.73	0.03	0.61	0.27
Contribution From STREET '19', Pipe 70A - 99A						0.30	31				0.00		0.00		0.00		0.30	0.90									
	99A	100A	0.23		24	1.13	118	3.58	1.37		0.00		0.00		0.00	0.00	0.23	1.13	0.32	1.69	62.5	250	0.25	29.73	0.06	0.61	0.33
To STREET '20', Pipe 100A - 74A						1.13	118				0.00		0.00		0.00			1.13									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha				
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph			
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha	
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s	
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013	(Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7		
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4		

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West		
Checked: W.L./V.W.	LOCATION: City of Ottawa		
Dwg. Reference: Sanitary Drainage Plan	File Ref:	Date: 09 Dec 2022	Sheet No 4 of 8

LICENSED PROFESSIONAL ENGINEER W. LIU 100167932 22-12-09 PROVINCE OF ONTARIO

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Centerline7 - 30																											
	92A	94A	0.51		43	0.51	43	3.66	0.51		0.00		0.00		0.00	0.00	0.51	0.51	0.15	0.66	71.0	200	0.65	26.44	0.02	0.84	0.35
To STREET '16', Pipe 94A - 95A						0.51	43				0.00		0.00		0.00			0.51									
STREET '13'																											
Contribution From STREET '16', Pipe 94A - 95A						0.51	43				0.00		0.00		0.00		0.51	0.51									
	95A	96A	0.52		54	1.03	97	3.60	1.13		0.00		0.00		0.00	0.00	0.52	1.03	0.29	1.43	75.5	250	0.25	29.73	0.05	0.61	0.31
	96A	97A	0.42		44	1.45	141	3.56	1.63		0.00		0.00		0.00	0.00	0.42	1.45	0.41	2.04	67.0	250	0.25	29.73	0.07	0.61	0.34
To STREET '20', Pipe 97A - 101A						1.45	141				0.00		0.00		0.00			1.45									
STREET '19'																											
	70A	71A	0.38		40	0.38	40	3.67	0.48		0.00		0.00		0.00	0.00	0.38	0.38	0.11	0.58	80.0	200	0.65	26.44	0.02	0.84	0.34
To STREET '11', Pipe 71A - 72A						0.38	40				0.00		0.00		0.00			0.38									
	70A	99A	0.30		31	0.30	31	3.68	0.37		0.00		0.00		0.00	0.00	0.30	0.30	0.09	0.46	66.0	200	0.65	26.44	0.02	0.84	0.32
To STREET '12', Pipe 99A - 100A						0.30	31				0.00		0.00		0.00			0.30									
STREET '18'																											
	68A	69A	0.32		33	0.32	33	3.68	0.39		0.00		0.00		0.00	0.00	0.32	0.32	0.09	0.48	80.5	200	0.65	26.44	0.02	0.84	0.32
To STREET '11', Pipe 69A - 71A						0.32	33				0.00		0.00		0.00			0.32									
	68A	98A	0.26		27	0.26	27	3.69	0.32		0.00		0.00		0.00	0.00	0.26	0.26	0.07	0.40	66.0	200	0.65	26.44	0.02	0.84	0.30
To STREET '12', Pipe 98A - 99A						0.26	27				0.00		0.00		0.00			0.26									
STREET '14'																											
	65A	66A	0.34		35	0.34	35	3.67	0.42		0.00		0.00		0.00	0.00	0.34	0.34	0.10	0.51	67.5	200	0.65	26.44	0.02	0.84	0.33
	66A	67A	0.34		35	0.68	70	3.63	0.82		0.00		0.00		0.00	0.00	0.34	0.68	0.19	1.02	74.0	250	0.25	29.73	0.03	0.61	0.28
To STREET '11', Pipe 67A - 69A						0.68	70				0.00		0.00		0.00			0.68									
STREET '15'																											
Contribution From STREET '9', Pipe 490A - 62A						0.31	32				0.00		0.00		0.00		0.31	0.31									
Contribution From STREET '9', Pipe 570A - 62A						0.10	10				0.00		0.00		0.00		0.10	0.41									
	62A	63A				0.41	42	3.66	0.50		0.00		0.00		0.00	0.00	0.00	0.41	0.12	0.62	9.5	200	0.35	19.40	0.03	0.62	0.28
	63A	64A	0.50		52	0.91	94	3.60	1.10		0.00		0.00		0.00	0.00	0.50	0.91	0.26	1.36	119.0	250	0.25	29.73	0.05	0.61	0.31
To STREET '16', Pipe 64A - 67A						0.91	94				0.00		0.00		0.00			0.91									
STREET '16'																											
	93A	94A				0.00					0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00	23.0	200	1.00	32.80	0.00	1.04	0.06
Contribution From Centerline7 - 30, Pipe 92A - 94A						0.51	43				0.00		0.00		0.00		0.51	0.51									
	94A	95A				0.51	43	3.66	0.51		0.00		0.00		0.00	0.00	0.00	0.51	0.15	0.66	30.5	250	0.25	29.73	0.02	0.61	0.24
To STREET '13', Pipe 95A - 96A						0.51	43				0.00		0.00		0.00			0.51									
	60A	61A	0.28		29	0.28	29	3.69	0.35		0.00		0.00		0.00	0.00	0.28	0.28	0.08	0.43	58.0	200	0.65	26.44	0.02	0.84	0.30
Contribution From STREET '9', Pipe 59A - 61A						0.46	47				0.00		0.00		0.35		0.81	1.09									
	61A	64A	0.13		14	0.87	90	3.60	1.05		0.00		0.00		0.35	0.04	0.13	1.22	0.35	1.44	44.5	250	0.25	29.73	0.05	0.61	0.31

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha				
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph			
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha	
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s	
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013	(Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7		
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4		

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West		
Checked: W.L./V.W.	LOCATION: City of Ottawa		
Dwg. Reference: Sanitary Drainage Plan	File Ref:	Date: 09 Dec 2022	Sheet No 5 of 8

LICENSED PROFESSIONAL ENGINEER W. LIU 100167932 22-12-09 PROVINCE OF ONTARIO

1226_san.xlsx

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Contribution From STREET '15', Pipe 63A - 64A						0.91	94				0.00		0.00		0.00		0.91	2.13									
	64A	67A	0.11		11	1.89	195	3.52	2.23		0.00		0.00		0.35	0.04	0.11	2.24	0.64	2.90	44.0	250	0.25	29.73	0.10	0.61	0.38
To STREET '11', Pipe 67A - 69A						1.89	195				0.00		0.00		0.35			2.24									
STREET '11'																											
Contribution From STREET '16', Pipe 64A - 67A						1.89	195				0.00		0.00		0.35		2.24	2.24									
Contribution From STREET '14', Pipe 66A - 67A						0.68	70				0.00		0.00		0.00		0.68	2.92									
	67A	69A	0.14		15	2.71	280	3.47	3.15		0.00		0.00		0.35	0.04	0.14	3.06	0.88	4.06	44.0	250	0.25	29.73	0.14	0.61	0.42
Contribution From STREET '18', Pipe 680A - 69A						0.32	33				0.00		0.00		0.00		0.32	3.38									
	69A	71A	0.16		17	3.19	330	3.45	3.69		0.00		0.00		0.35	0.04	0.16	3.54	1.01	4.74	44.0	250	0.25	29.73	0.16	0.61	0.44
Contribution From STREET '19', Pipe 700A - 71A						0.38	40				0.00		0.00		0.00		0.38	3.92									
	71A	72A	0.21		22	3.78	392	3.42	4.35		0.00		0.00		0.35	0.04	0.21	4.13	1.18	5.56	63.0	250	0.25	29.73	0.19	0.61	0.46
To STREET '20', Pipe 72A - 74A						3.78	392				0.00		0.00		0.35			4.13									
STREET '9'																											
	1A	3A	0.57		48	0.57	48	3.65	0.57		0.00		0.00		0.00	0.00	0.57	0.57	0.16	0.73	99.5	200	0.65	26.44	0.03	0.84	0.36
To STREET '22', Pipe 3A - 4A						0.57	48				0.00		0.00		0.00			0.57									
	1A	8A	0.44		37	0.44	37	3.67	0.44		0.00		0.00		0.00	0.00	0.44	0.44	0.13	0.57	75.0	200	0.65	26.44	0.02	0.84	0.34
To STREET '24', Pipe 8A - 9A						0.44	37				0.00		0.00		0.00			0.44									
						0.00	0			13.70	13.70		0.00		0.00		13.70	13.70		0.00							
	2A	3A	0.14		12	0.14	12	3.73	0.14		13.70		0.00		0.00	4.44	0.14	13.84	3.96	8.54	34.5	300	0.65	77.96	0.11	1.10	0.72
To STREET '22', Pipe 3A - 4A						0.14	12				13.70		0.00		0.00			13.84		0.00							
	49A	62A	0.31		32	0.31	32	3.68	0.38		0.00		0.00		0.00	0.00	0.31	0.31	0.09	0.47	62.5	200	0.65	26.44	0.02	0.84	0.32
To STREET '15', Pipe 62A - 63A						0.31	32				0.00		0.00		0.00			0.31									
	49A	51A	0.24		25	0.24	25	3.69	0.30		0.00		0.00		0.00	0.00	0.24	0.24	0.07	0.37	59.5	200	0.65	26.44	0.01	0.84	0.29
To STREET '10', Pipe 51A - 52A						0.24	25				0.00		0.00		0.00			0.24									
	50A	51A	0.11		11	0.11	11	3.73	0.13		0.00		0.00		0.00	0.00	0.11	0.11	0.03	0.16	31.5	200	1.00	32.80	0.01	1.04	0.27
To STREET '10', Pipe 51A - 52A						0.11	11				0.00		0.00		0.00			0.11									
	57A	62A	0.10		10	0.10	10	3.73	0.12		0.00		0.00		0.00	0.00	0.10	0.10	0.03	0.15	27.5	200	0.65	26.44	0.01	0.84	0.22
To STREET '15', Pipe 62A - 63A						0.10	10				0.00		0.00		0.00			0.10									
	16A	17A	0.21		18	0.21	18	3.71	0.22		0.00		0.00		0.00	0.00	0.21	0.21	0.06	0.28	43.5	200	0.65	26.44	0.01	0.84	0.27
	17A	18A	0.11		10	0.32	28	3.69	0.33		0.00		0.00		0.00	0.00	0.11	0.32	0.09	0.43	11.0	250	0.25	29.73	0.01	0.61	0.21
To STREET '21', Pipe 18A - 19A						0.32	28				0.00		0.00		0.00			0.32									
	57A	58A	0.04		4	0.04	4	3.76	0.05		0.00		0.00		0.00	0.00	0.04	0.04	0.01	0.06	9.0	200	0.65	26.44	0.00	0.84	0.17
	58A	59A	0.12		12	0.16	16	3.71	0.19		0.00		0.00		0.00	0.00	0.12	0.16	0.05	0.24	13.0	200	0.95	31.97	0.01	1.02	0.29
	59A	61A	0.30		31	0.46	47	3.66	0.56		0.00		0.00	0.35	0.35	0.04	0.65	0.81	0.23	0.83	98.5	250	0.25	29.73	0.03	0.61	0.26
To STREET '16', Pipe 61A - 64A						0.46	47				0.00		0.00		0.35			0.81									

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha				
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph			
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha	
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s	
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013	(Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7		
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4		

Designed: M.S.

Checked: W.L./V.W.

Dwg. Reference: Sanitary Drainage Plan

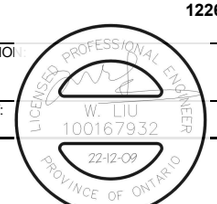
PROJECT: **1226 - Barrhaven Conservancy West**

LOCATION: **City of Ottawa**

File Ref:

Date: **09 Dec 2022**

Sheet No. 6 of 8



1226_san.xlsx

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION				RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET		FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
STREET '10'																												
Contribution From STREET '9', Pipe 49A - 51A							0.24	25				0.00		0.00		0.00		0.24	0.24									
Contribution From STREET '9', Pipe 50A - 51A							0.11	11				0.00		0.00		0.00		0.11	0.35									
		51A	52A				0.35	36	3.67	0.43		0.00		0.00		0.00	0.00	0.00	0.35	0.10	0.53	7.5	250	0.25	29.73	0.02	0.61	0.23
		52A	53A	0.73		61	1.08	97	3.60	1.13		0.00		0.00		0.00	0.00	0.73	1.08	0.31	1.44	127.5	250	0.25	29.73	0.05	0.61	0.31
		53A	54A	0.42		35	1.50	132	3.57	1.53		0.00		0.00		0.00	0.00	0.42	1.50	0.43	1.95	75.0	250	0.25	29.73	0.07	0.61	0.34
		54A	55A	0.40		34	1.90	166	3.54	1.91		0.00		0.00		0.00	0.00	0.40	1.90	0.54	2.45	67.5	250	0.25	29.73	0.08	0.61	0.36
		55A	56A	0.15		13	2.05	179	3.53	2.05		0.00		0.00		0.00	0.00	0.15	2.05	0.59	2.64	12.0	250	0.25	29.73	0.09	0.61	0.37
To STREET '20', Pipe 56A - 72A							2.05	179				0.00		0.00		0.00			2.05									
STREET '20'																												
Contribution From STREET '13', Pipe 96A - 97A							1.45	141				0.00		0.00		0.00		1.45	1.45									
		97A	101A	0.17		18	1.62	159	3.55	1.83		0.00		0.00		0.00	0.00	0.17	1.62	0.46	2.29	15.5	250	0.25	29.73	0.08	0.61	0.36
		101A	100A	0.22		23	1.84	182	3.53	2.08		0.00		0.00		0.00	0.00	0.22	1.84	0.53	2.61	51.5	250	0.25	29.73	0.09	0.61	0.37
Contribution From STREET '12', Pipe 99A - 100A							1.13	118				0.00		0.00		0.00		1.13	2.97									
		100A	74A	0.50		52	3.47	352	3.44	3.92		0.00		0.00		0.00	0.00	0.50	3.47	0.99	4.91	83.0	250	0.25	29.73	0.17	0.61	0.44
To STREET '17', Pipe 74A - 76A							3.47	352				0.00		0.00		0.00			3.47									
Contribution From STREET '10', Pipe 55A - 56A							2.05	179				0.00		0.00		0.00		2.05	2.05									
		56A	72A	0.20		17	2.25	196	3.52	2.24		0.00		0.00		0.00	0.00	0.20	2.25	0.64	2.88	50.0	250	0.25	29.73	0.10	0.61	0.38
Contribution From STREET '11', Pipe 71A - 72A							3.78	392				0.00		0.00		0.35		4.13	6.38									
				0.18		15	6.21	603				0.00		0.00		0.35		0.18	6.56									
		72A	74A	0.19		20	6.40	623	3.34	6.74		0.00		0.00		0.35	0.04	0.19	6.75	1.93	8.71	63.0	250	0.25	29.73	0.29	0.61	0.53
To STREET '17', Pipe 74A - 76A							6.40	623				0.00		0.00		0.35			6.75									
STREET '17'																												
Contribution From STREET '20', Pipe 100A - 74A							3.47	352				0.00		0.00		0.00		3.47	3.47									
Contribution From STREET '20', Pipe 72A - 74A							6.40	623				0.00		0.00		0.35		6.75	10.22									
		74A	76A				9.87	975	3.25	10.26		0.00		0.00		0.35	0.04	0.00	10.22	2.92	13.22	68.5	250	0.25	29.73	0.44	0.61	0.59
To STREET '2', Pipe 76A - 86A							9.87	975				0.00		0.00		0.35			10.22									
STREET '2'																												
Contribution From STREET '1', Pipe 48A - 76A							9.51	804				13.70		0.00		0.74		23.95	23.95		0.00							
Contribution From STREET '17', Pipe 74A - 76A							9.87	975				0.00		0.00		0.35		10.22	34.17									
Contribution From STREET '1', Pipe 75A - 76A							0.11	11				0.00		0.00		0.00		0.11	34.28									
		76A	86A				19.49	1790	3.10	17.97		13.70		0.00		1.09	4.56	0.00	34.28	9.80	32.33	65.0	375	0.15	67.91	0.48	0.61	0.61
Contribution From STREET '8', Pipe 84A - 86A							6.46	548				0.00		0.00		0.00		6.46	40.74									
Contribution From STREET '3', Pipe 85A - 86A							0.07	7				0.00		0.00		0.00		0.07	40.81									
		86A	88A	0.16		17	26.18	2362	3.02	23.14		13.70		0.00		1.09	4.56	0.16	40.97	11.72	39.41	44.0	375	0.15	67.91	0.58	0.61	0.64
Contribution From STREET '4', Pipe 87A - 88A							0.10	10				0.00		0.00		0.00		0.10	41.07									
		88A	89A	0.16		17	26.44	2389	3.02	23.38		13.70		0.00		1.09	4.56	0.16	41.23	11.79	39.73	36.0	375	0.15	67.91	0.59	0.61	0.64
		89A	90A	0.12		12	26.56	2401	3.02	23.48		13.70		0.00		1.09	4.56	0.12	41.35	11.83	39.87	14.0	375	0.15	67.91	0.59	0.61	0.64
		90A	91A	0.22		23	26.78	2424	3.02	23.69		13.70		0.00		1.09	4.56	0.22	41.57	11.89	40.14	60.5	375	0.15	67.91	0.59	0.61	0.64
		91A	105A	0.24		25	27.02	2449	3.01	23.91		13.70		0.00		1.09	4.56	0.24	41.81	11.96	40.43	67.5	375	0.15	67.91	0.60	0.61	0.64
Contribution From STREET '5', Pipe 104A - 105A							2.13	222				0.00		0.00		0.00		2.13	43.94									
		105A	109A				29.15	2671	2.99	25.86		13.70		0.00		1.09	4.56	0.00	43.94	12.57	42.99	44.0	375	0.15	67.91	0.63	0.61	0.65
Contribution From STREET '6', Pipe 108A - 109A							0.78	81				0.00		0.00		0.00		0.78	44.72									
		109A	119A				29.93	2752	2.98	26.57		13.70		0.00		1.09	4.56	0.00	44.72	12.79	43.92	44.5	375	0.15	67.91	0.65	0.61	0.65

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha		
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph	
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286 L/s/ha
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600 m/s
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013 (Pvc) 0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4

Designed: M.S.

Checked: W.L./V.W.

Dwg. Reference: Sanitary Drainage Plan

PROJECT: 1226 - Barrhaven Conservancy West

LOCATION: City of Ottawa

File Ref:

Date: 09 Dec 2022

Sheet No 7 of 8

LICENSED PROFESSIONAL ENGINEER W. LIU 100167932 22-12-09 PROVINCE OF ONTARIO

1226_san.xlsx

SANITARY SEWER CALCULATION SHEET

Manning's n=0.013

LOCATION			RESIDENTIAL AREA AND POPULATION							COMM		INSTIT		PARK		C+I+I	INFILTRATION				PIPE						
STREET	FROM M.H.	TO M.H.	AREA (ha)	UNITS	POP.	CUMULATIVE AREA (ha)	CUMULATIVE POP.	PEAK FACT.	PEAK FLOW (l/s)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	AREA (ha)	ACCU. AREA (ha)	PEAK FLOW (l/s)	TOTAL AREA (ha)	ACCU. AREA (ha)	INFILT. FLOW (l/s)	TOTAL FLOW (l/s)	DIST (m)	DIA (mm)	SLOPE (%)	CAP. (FULL) (l/s)	RATIO Q act/Q cap	VEL. (FULL) (m/s)	VEL. (ACT.) (m/s)
Contribution From STREET '7', Pipe 113A - 119A						1.06	111				0.00		0.00		0.00		1.06	45.78									
Contribution From Centerline6 - 29, Pipe 118A - 119A						0.47	40				0.00		0.00		0.44		0.91	46.69									
	119A	120A				31.46	2903	2.96	27.88		13.70		0.00		1.53	4.60	0.00	46.69	13.35	45.84	19.5	375	0.15	67.91	0.68	0.61	0.66
To Centerline4 - 1004, Pipe 120A - 121A						31.46	2903				13.70		0.00		1.53			46.69		0.00							
Centerline4 - 1004																											
Contribution From STREET '2', Pipe 119A - 120A						31.46	2903				13.70		0.00		1.53		46.69	46.69		0.00							
	120A	121A				31.46	2903	2.96	27.88		13.70		0.00		1.53	4.60	0.00	46.69	13.35	45.84	28.0	375	0.15	67.91	0.68	0.61	0.66

Projected flow of 45.84 L/s which is less than the previously projected 56.22 L/s from the Phase 5 draft plan update submission.

DESIGN PARAMETERS

Park Flow =	9300	L/ha/da	0.10764	l/s/Ha			
Average Daily Flow =	280	l/p/day			Industrial Peak Factor = as per MOE Graph		
Comm/Inst Flow =	28000	L/ha/da	0.3241	l/s/Ha	Extraneous Flow =	0.286	L/s/ha
Industrial Flow =	35000	L/ha/da	0.40509	l/s/Ha	Minimum Velocity =	0.600	m/s
Max Res. Peak Factor =	4.00				Manning's n = (Conc)	0.013 (Pvc)	0.013
Commercial/Inst./Park Peak Factor =	1.00				Townhouse coeff=	2.7	
Institutional =	0.32	l/s/Ha			Single house coeff=	3.4	

Designed:	M.S.
Checked:	W.L./V.W.
Dwg. Reference:	Sanitary Drainage Plan
PROJECT:	**1226 - Barrhaven Conservancy West**
LOCATION:	**City of Ottawa**
File Ref:	
Date:	**09 Dec 2022**
Sheet No	8
of	8

LICENSED PROFESSIONAL ENGINEER W. LIU 100167932 22-12-09 PROVINCE OF ONTARIO

APPENDIX D

STORMWATER

Conservation Partners
Partenaires en conservation

Mississippi Valley Conservation Authority | Rideau Valley Conservation Authority | South Nation Conservation / Conservation de la Nation Sud

May 31, 2020

City of Ottawa
110 Laurier Avenue,
Ottawa, ON K1P 1J1

Attention: Doug James

Subject: **Barrhaven Conservancy Development Corporation**
Status of As-Built Grading
Related: RVCA Permit # RV5-4419 and RV5-1718)
Vacant land on the north side of the Jock River generally bounded by Highway 416 and the Fraser Clarke Creek, City of Ottawa

Dear Mr. James:

The RVCA has reviewed information recently submitted by David Schaeffer Engineering Ltd. including as-built grades in support of works approved by the Rideau Valley Conservation Authority under Section 28 of the Conservation Authorities Act (Permit File Number: RV5-4419 and RV5-1718). The RVCA offers the following comments related to future development proposed for the area within the scope of approved the permits.

The subject lands as identified as part of Lots 11, 12, 13, 14, 15 former geographic Township of Nepean, Concessions 3 & 4, now in the City of Ottawa have been addressed through the general placement of fill and the formal construction of a berm around the perimeter of four blocks within the subject lands. The site specific elevations of the berm have been reviewed by the RVCA and are generally accepted as being appropriate as removing these lands from the floodplain in accordance with the aforementioned approved permits.

The detailed grading plans submitted by David Schaeffer Engineering Ltd. titled As Constructed plan of Berms and Cut Areas – Barrhaven Conservancy", dated May 27, 2020, prepared by Adam Fobert, P.Eng. of DSEL, DSEL File Number 16891 using the following resources:

- Orthoimagery Survey, dated April 20, 2020, acquired and processed by First Base Solutions a division of JD Barnes Ltd and certified by Chris Fox, O.L.S., A.L.S., P. Eng. of JD Barnes Ltd, file reference number 2037OTTA0001; ·
- Topographic Detail of Part of Lot 13, 14,&15 Concession 3&4, dated May 6, 2020, certified by Chris Fox, O.L.S., A.L.S., P. Eng. of JD Barnes Ltd, file reference number 16-10-127-00; ·

- Contractor as-built collected by the Tomlinson Group of Companies of Phase 1 dated May 15, 2020, reviewed by Jeremy Chouindard, EIT and certified by Stephen Pichette, P.Eng. of DSEL

The above information indicates that land within the berm have generally been raised to exceed the flood elevation cross sections throughout the project area. However, it is noted that as this is considered an active construction site the presence of lower areas to manage construction, on-site erosion and sediment control show lower elevations. These areas will be addressed through the construction process, as sufficient material is presently stockpiled for this purpose to ensure. For the purposes of the floodplain, these areas are considered removed by virtue of the berm.

Conclusion:

The grade modifications, including construction of the berm and filling behind the berm, as documented in the above noted "as constructed" plans, have been completed in accordance with the plans approved by the RVCA under permits RV5-4419 and RV5-1718.

Please feel free to contact our office with any questions or comments you may have.

Respectfully,

Terry K. Davidson

Terry Davidson, P.Eng
Director of Engineering and Regulations
Rideau Valley Conservation Authority
613-692-3571 x1107
terry.davidson@rvca.ca

attach: Technical memorandum by Evelyn Liu, M.Asc., P.Eng. Water Resources Engineer, RVCA dated May 29, 2020

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA							
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
STREET '14'																																
			0.14	0.80	0.31	0.31			0.00	0.00			0.00	0.00			0.00	0.00														
	63	64	0.20	0.68	0.38	0.69			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	53	375	375	PVC	0.30	67.0	96.0323	0.8695	1.2843	0.551
			0.14	0.80	0.31	1.00			0.00	0.00			0.00	0.00			0.00	0.00														
	64	65	0.23	0.68	0.43	1.44			0.00	0.00			0.00	0.00			0.00	0.00	11.28	72.20	97.87	114.69	167.61	104	750	750	CONC	0.11	74.5	369.2322	0.8358	1.4857	0.281
To STREET '11', Pipe 65 - 67						1.44				0.00				0.00				0.00	12.77														
STREET '15'																																
Contribution From STREET '9', Pipe 470 - 60						0.47				0.00				0.00				0.00	11.24													
Contribution From STREET '9', Pipe 59 - 60						0.19				0.00				0.00				0.00	10.59													
	60	61	0.01	0.68	0.02	0.68			0.00	0.00			0.00	0.00			0.00	0.00	11.24	72.36	98.08	114.95	167.99	49	600	600	CONC	0.15	10.5	237.8056	0.8411	0.2081	0.207
	61	62	0.50	0.80	1.11	1.79			0.00	0.00			0.00	0.00			0.00	0.00	11.45	71.67	97.13	113.83	166.35	128	750	750	CONC	0.11	124.5	369.2322	0.8358	2.4827	0.348
To STREET '16', Pipe 62 - 65						1.79				0.00				0.00				0.00	13.93													
STREET '11'																																
Contribution From STREET '16', Pipe 62 - 65						3.70				0.49				0.00				0.00	14.81													
Contribution From STREET '14', Pipe 64 - 65						1.44				0.00				0.00				0.00	12.77													
	65	67	0.18	0.68	0.34	5.47			0.00	0.49			0.00	0.00			0.00	0.00	14.81	62.23	84.19	98.60	143.99	382	825	825	CONC	0.11	44.0	476.0801	0.8906	0.8234	0.802
Contribution From STREET '18', Pipe 660 - 67						0.76				0.00				0.00				0.00	11.78													
	67	69	0.16	0.68	0.30	6.53			0.00	0.49			0.00	0.00			0.00	0.00	15.63	60.32	81.58	95.53	139.48	434	900	900	CONC	0.11	44.0	600.4123	0.9438	0.7770	0.723
Contribution From STREET '19', Pipe 680 - 69						0.79				0.00				0.00				0.00	11.78													
	69	70	0.20	0.68	0.38	7.70			0.00	0.49			0.00	0.00			0.00	0.00	16.41	58.64	79.27	92.82	135.51	490	900	900	CONC	0.11	63.0	600.4123	0.9438	1.1125	0.817
To STREET '20', Pipe 70 - 72						7.70				0.49				0.00				0.00	17.52													
STREET '10'																																
Contribution From STREET '9', Pipe 47 - 49						0.34				0.00				0.00				0.00	11.33													
Contribution From STREET '9', Pipe 48 - 49						0.13				0.00				0.00				0.00	10.49													
	49	50	0.01	0.68	0.02	0.49			0.00	0.00			0.00	0.00			0.00	0.00	11.33	72.05	97.65	114.44	167.25	35	600	600	CONC	0.15	12.0	237.8056	0.8411	0.2378	0.149
	50	51	0.72	0.67	1.34	1.83			0.00	0.00			0.00	0.00			0.00	0.00	11.57	71.27	96.58	113.18	165.39	131	750	750	CONC	0.11	127.0	369.2322	0.8358	2.5326	0.354
	51	52	0.42	0.67	0.78	2.61			0.00	0.00			0.00	0.00			0.00	0.00	14.10	63.97	86.58	101.41	148.11	167	750	750	CONC	0.11	74.5	369.2322	0.8358	1.4857	0.453
	52	53	0.39	0.67	0.73	3.34			0.00	0.00			0.00	0.00			0.00	0.00	15.59	60.42	81.71	95.68	139.70	202	750	750	CONC	0.11	66.5	369.2322	0.8358	1.3261	0.547
	53	54	0.14	0.67	0.26	3.60			0.00	0.00			0.00	0.00			0.00	0.00	16.91	57.59	77.85	91.14	133.04	207	750	750	CONC	0.11	14.5	369.2322	0.8358	0.2892	0.562
To STREET '20', Pipe 54 - 70						3.60				0.00				0.00				0.00	17.20													
STREET '17'																																
Contribution From STREET '20', Pipe 70 - 72						12.35				0.49				0.00				0.00	19.16													
Contribution From STREET '20', Pipe 71 - 72						0.95				0.00				0.00				0.00	11.45													
	72	76	0.10	0.67	0.19	13.48			0.00	0.49			0.00	0.00			0.00	0.00	19.16	53.42	72.14	84.43	123.21	756	1200	1200	CONC	0.11	68.5	1293.0625	1.1433	0.9986	0.584
To STREET '2', Pipe 76 - 81						13.48				0.49				0.00				0.00	20.16													
STREET '8'																																
	85	86	0.20	0.67	0.37	0.37			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	29	450	450	CONC	0.20	49.0	127.5033	0.8017	1.0187	0.224
	86	87	0.12	0.67	0.22	0.60			0.00	0.00			0.00	0.00			0.00	0.00	11.02	73.10	99.10	116.15	169.75	44	450	450	CONC	0.20	13.0	127.5033	0.8017	0.2703	0.342
	87	88	0.36	0.67	0.67	1.27			0.00	0.00			0.00	0.00			0.00	0.00	11.29	72.19	97.84	114.66	167.58	91	600	600	CONC	0.15	61.5	237.8056	0.8411	1.2187	0.384
	88	89	0.14	0.67	0.26	1.53			0.00	0.00			0.00	0.00			0.00	0.00	12.51	68.35	92.58	108.47	158.48	104	600	600	CONC	0.15	13.5	237.8056	0.8411	0.2675	0.439
	89	90	0.10	0.67	0.19	1.71			0.00	0.00			0.00	0.00			0.00	0.00	12.78	67.57	91.51	107.21	156.63	116	750	750	CONC	0.11	30.5	369.2322	0.8358	0.6082	0.314
To Centerline 1003, Pipe 90 - OGS W2						1.71				0.00				0.00				0.00	13.38													
			0.03	0.68	0.06	0.06			0.00	0.00			0.00	0.00			0.00	0.00														
	80	81	0.03	0.80	0.07	0.12			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	9	300	300	PVC	0.35	24.0	57.2089	0.8093	0.4942	0.166
Contribution From STREET '2', Pipe 76 - 81						13.48				2.76				0.00				0.00	21.04													
Contribution From STREET '2', Pipe 79 - 81						0.20				0.64				0.00				0.00	11.68													
	81	82	0.18	0.67	0.34	14.14			0.00	3.41			0.00	0.00			0.00	0.00	21.04	50.42	68.06	79.63	116.17	945	1200	1200	CONC	0.11	57.5	1293.0625	1.1433	0.8382	0.731
	82	83	0.35	0.67	0.65	14.79			0.00	3.41			0.00	0.00			0.00	0.00	21.87	49.20	66.39	77.67	113.30	954	1200	1200	CONC	0.11	70.0	1293.0625	1.1433	1.0204	0.738
	83	84	0.12	0.67	0.22	15.02			0.00	3.41			0.00	0.00			0.00	0.00	22.89	47.80	64.48	75.43	110.01	937	1200	1200	CONC	0.11	12.5	1293.0625	1.1433	0.1822	0.725
	84	90	0.05	0.67	0.09	15.11			0.00	3.41			0.00	0.00			0.00	0.00	23.08	47.56	64.15	75.04	109.44	937	1200	1200	CONC	0.11	14.5	1293.0625	1.1433	0.2114	0.725
To Centerline 1003, Pipe 90 - OGS W2						15.11				3.41				0.00				0.00	23.29													

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.
Checked: W.L./V.W.
Dwg. Reference:

PROJECT: 1226 - Barrhaven Conservancy West
LOCATION: **City of Ottawa**
File Ref:
Date: 09 Dec 2022
Sheet No. SHEET 1 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

LOCATION			AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
Centerline 1003																																	
Contribution From STREET '8', Pipe 84 - 90						15.11				3.41				0.00				0.00	23.29														
Contribution From STREET '8', Pipe 89 - 90						1.71				0.00				0.00				0.00	13.38														
	90	OGS W2	0.02	0.67	0.04	16.86			0.00	3.41			0.00	0.00			0.00	0.00	23.29	47.28	63.77	74.60	108.80	1014	1200	1200	CONC	0.11	27.0	1293.0625	1.1433	0.3936	0.785
STREET '21'																																	
Contribution From STREET '9', Pipe 19 - 20						0.56				0.00				0.00				0.00	11.07														
	20	21	0.65	0.67	1.21	1.77			0.00	0.00			0.00	0.00			0.00	0.00	11.07	72.92	98.86	115.86	169.33	129	525	525	CONC	0.20	110.0	192.3297	0.8885	2.0635	0.671
	21	22	0.66	0.67	1.23	3.00			0.00	0.00			0.00	0.00			0.00	0.00	13.13	66.55	90.11	105.56	154.21	200	600	600	CONC	0.15	113.0	237.8056	0.8411	2.2392	0.839
	22	23	0.62	0.67	1.15	4.15			0.00	0.00			0.00	0.00			0.00	0.00	15.37	60.90	82.37	96.46	140.84	253	675	675	CONC	0.15	107.0	325.5584	0.9098	1.9602	0.777
	23	24	0.06	0.67	0.11	4.27			0.00	0.00			0.00	0.00			0.00	0.00	17.33	56.76	76.70	89.79	131.07	242	675	675	CONC	0.15	10.5	325.5584	0.9098	0.1924	0.744
	24	25	0.19	0.67	0.35	4.62			0.00	0.00			0.00	0.00			0.00	0.00	17.53	56.38	76.19	89.19	130.19	260	675	675	CONC	0.15	33.5	325.5584	0.9098	0.6137	0.800
	25	26	0.16	0.67	0.30	4.92			0.00	0.00			0.00	0.00			0.00	0.00	18.14	55.23	74.62	87.34	127.47	272	675	675	CONC	0.15	28.0	325.5584	0.9098	0.5130	0.834
	26	27	0.24	0.67	0.45	5.36			0.00	0.00			0.00	0.00			0.00	0.00	18.65	54.30	73.35	85.86	125.30	291	675	675	CONC	0.20	42.5	375.9224	1.0505	0.6743	0.775
	27	28	0.15	0.67	0.28	5.64			0.00	0.00			0.00	0.00			0.00	0.00	19.33	53.14	71.76	83.99	122.56	300	675	675	CONC	0.20	31.0	375.9224	1.0505	0.4918	0.798
To STREET '25', Pipe 28 - OGS W4						5.64				0.00				0.00				0.00	19.82														
STREET '22'																																	
Contribution From STREET '9', Pipe 1 - 2						0.50				0.00				0.00				0.00	10.55														
Contribution From STREET '9', Pipe 700 - 2						1.12				0.00				0.00				0.00	12.20														
	2	3	0.03	0.67	0.06	1.68			0.00	0.00			0.00	0.00			0.00	0.00	12.20	69.27	93.83	109.94	160.65	116	450	450	CONC	0.25	14.5	142.5531	0.8963	0.2696	0.815
	3	4	0.17	0.67	0.32	1.99			0.00	0.00			0.00	0.00			0.00	0.00	12.47	68.45	92.72	108.63	158.72	136	525	525	CONC	0.20	45.0	192.3297	0.8885	0.8442	0.709
	4	5	0.10	0.67	0.19	2.18			0.00	0.00			0.00	0.00			0.00	0.00	13.32	66.05	89.42	104.75	153.02	144	600	600	CONC	0.15	10.5	237.8056	0.8411	0.2081	0.605
	5	6	0.55	0.67	1.02	3.20			0.00	0.00			0.00	0.00			0.00	0.00	13.53	65.48	88.64	103.84	151.68	210	750	750	CONC	0.11	90.0	369.2322	0.8358	1.7948	0.568
	6	9	0.48	0.67	0.89	4.10			0.00	0.00			0.00	0.00			0.00	0.00	15.32	61.02	82.54	96.65	141.13	250	750	750	CONC	0.11	89.5	369.2322	0.8358	1.7848	0.677
To STREET '24', Pipe 9 - 10						4.10				0.00				0.00				0.00	17.11														
STREET '9'																																	
	1	2	0.27	0.67	0.50	0.50			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	39	375	375	PVC	0.30	28.5	96.0323	0.8695	0.5463	0.402
To STREET '22', Pipe 2 - 3						0.50				0.00				0.00				0.00	10.55														
	47	49	0.18	0.68	0.34	0.34			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	26	450	450	CONC	0.20	64.0	127.5033	0.8017	1.3305	0.205
To STREET '10', Pipe 49 - 50						0.34				0.00				0.00				0.00	11.33														
	47	60	0.25	0.68	0.47	0.47			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	36	450	450	CONC	0.20	59.5	127.5033	0.8017	1.2370	0.285
To STREET '15', Pipe 60 - 61						0.47				0.00				0.00				0.00	11.24														
	48	49	0.07	0.68	0.13	0.13			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	10	300	300	PVC	0.35	24.0	57.2089	0.8093	0.4942	0.178
To STREET '10', Pipe 49 - 50						0.13				0.00				0.00				0.00	10.49														
	59	60	0.10	0.68	0.19	0.19			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	15	450	450	CONC	0.20	28.5	127.5033	0.8017	0.5925	0.114
To STREET '15', Pipe 60 - 61						0.19				0.00				0.00				0.00	10.59														
	7	8	0.43	0.67	0.80	0.80			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	62	375	375	PVC	0.30	74.0	96.0323	0.8695	1.4185	0.641
To STREET '24', Pipe 8 - 9						0.80				0.00				0.00				0.00	11.42														
	7	2	0.60	0.67	1.12	1.12			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	86	450	450	CONC	0.20	106.0	127.5033	0.8017	2.2037	0.673
To STREET '22', Pipe 2 - 3						1.12				0.00				0.00				0.00	12.20														
	18	19	0.21	0.67	0.39	0.39			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	30	300	300	PVC	0.35	42.0	57.2089	0.8093	0.8649	0.525
	19	20	0.09	0.67	0.17	0.56			0.00	0.00			0.00	0.00			0.00	0.00	10.86	73.64	99.84	117.01	171.02	41	300	300	PVC	0.35	10.0	57.2089	0.8093	0.2059	0.719
To STREET '21', Pipe 20 - 21						0.56				0.00				0.00				0.00	11.07														
	59	55	0.05	0.68	0.09	0.09			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	7	300	300	PVC	0.35	13.5	57.2089	0.8093	0.2780	0.127
	55	56	0.02	0.68	0.04	0.13			0.00	0.00			0.00	0.00			0.00	0.00	10.28	75.75	102.75	120.44	176.06	10	375	375	PVC	0.30	13.0	96.0323	0.8695	0.2492	0.104

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.
Checked: W.L./V.W.
Dwg. Reference:

PROJECT: 1226 - Barrhaven Conservancy West
LOCATION: **City of Ottawa**
File Ref:
Date: 09 Dec 2022
Sheet No. SHEET 2 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
			0.30	0.80	0.67	0.80			0.00	0.00			0.00	0.00			0.00	0.00															
	56	58			0.00	0.80	0.44	0.40	0.49	0.49			0.00	0.00			0.00	0.00	10.53	74.84	101.49	118.96	173.88	109	450	450	CONC	0.20	102.5	127.5033	0.8017	2.1309	0.859
To STREET '16', Pipe 58 - 62						0.80				0.49				0.00				0.00	12.66														
STREET '24'																																	
Contribution From STREET '9', Pipe 7 - 8						0.80				0.00				0.00				0.00	11.42														
	8	9	0.21	0.67	0.39	1.19			0.00	0.00			0.00	0.00			0.00	0.00	11.42	71.76	97.25	113.97	166.55	86	450	450	CONC	0.20	67.5	127.5033	0.8017	1.4033	0.671
Contribution From STREET '22', Pipe 6 - 9						4.10				0.00				0.00				0.00	17.11														
	9	10	0.24	0.67	0.45	5.74			0.00	0.00			0.00	0.00			0.00	0.00	17.11	57.21	77.32	90.52	132.13	328	825	825	CONC	0.11	62.5	476.0801	0.8906	1.1696	0.689
	10	11	0.72	0.67	1.34	7.08			0.00	0.00			0.00	0.00			0.00	0.00	18.27	54.98	74.28	86.95	126.89	389	825	825	CONC	0.11	122.0	476.0801	0.8906	2.2831	0.817
	11	12	0.48	0.67	0.89	7.97			0.00	0.00			0.00	0.00			0.00	0.00	20.56	51.15	69.05	80.80	117.88	408	825	825	CONC	0.11	80.0	476.0801	0.8906	1.4971	0.857
	12	13	0.10	0.67	0.19	8.16			0.00	0.00			0.00	0.00			0.00	0.00	22.05	48.94	66.04	77.27	112.70	399	825	825	CONC	0.11	13.5	476.0801	0.8906	0.2526	0.839
	13	14	0.15	0.67	0.28	8.44			0.00	0.00			0.00	0.00			0.00	0.00	22.31	48.59	65.56	76.70	111.88	410	900	900	CONC	0.11	32.0	600.4123	0.9438	0.5651	0.683
	14	15	0.07	0.67	0.13	8.57			0.00	0.00			0.00	0.00			0.00	0.00	22.87	47.83	64.52	75.48	110.08	410	900	900	CONC	0.11	17.0	600.4123	0.9438	0.3002	0.682
	15	17	0.02	0.67	0.04	8.61			0.00	0.00			0.00	0.00			0.00	0.00	23.17	47.43	63.98	74.84	109.15	408	900	900	CONC	0.11	10.0	600.4123	0.9438	0.1766	0.680
To STREET '25', Pipe 17 - 28						8.61				0.00				0.00				0.00	23.35														
STREET '26'																																	
	43	44	0.60	0.67	1.12	1.12			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	86	450	450	CONC	0.20	101.0	127.5033	0.8017	2.0997	0.673
	44	45	0.06	0.67	0.11	1.23			0.00	0.00			0.00	0.00			0.00	0.00	12.10	69.58	94.27	110.46	161.40	86	450	450	CONC	0.20	12.5	127.5033	0.8017	0.2599	0.671
To STREET '28', Pipe 45 - 46						1.23				0.00				0.00				0.00	12.36														
STREET '28'																																	
Contribution From STREET '26', Pipe 44 - 45						1.23				0.00				0.00				0.00	12.36														
	45	46			0.00	1.23			0.00	0.00			0.00	0.00			0.00	0.00	12.36	68.79	93.19	109.18	159.53	85	450	450	CONC	0.20	55.0	127.5033	0.8017	1.1434	0.663
To STREET '27', Pipe 46 - OGS W3						1.23				0.00				0.00				0.00	13.50														
STREET '23'																																	
	34	36	0.19	0.67	0.35	0.35			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	27	300	300	PVC	0.35	42.0	57.2089	0.8093	0.8649	0.475
To STREET '25', Pipe 36 - 37						0.35				0.00				0.00				0.00	10.86														
	35	36	0.20	0.67	0.37	0.37			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	29	300	300	PVC	0.35	34.0	57.2089	0.8093	0.7002	0.500
To STREET '25', Pipe 36 - 37						0.37				0.00				0.00				0.00	10.70														
	35	29	0.50	0.67	0.93	0.93			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	72	450	450	CONC	0.20	77.5	127.5033	0.8017	1.6112	0.561
	29	30	0.21	0.67	0.39	1.32			0.00	0.00			0.00	0.00			0.00	0.00	11.61	71.13	96.39	112.95	165.06	94	450	450	CONC	0.20	16.0	127.5033	0.8017	0.3326	0.738
	30	31	0.48	0.67	0.89	2.22			0.00	0.00			0.00	0.00			0.00	0.00	11.94	70.07	94.94	111.24	162.55	155	525	525	CONC	0.20	82.5	192.3297	0.8885	1.5476	0.808
	31	33	0.46	0.67	0.86	3.07			0.00	0.00			0.00	0.00			0.00	0.00	13.49	65.57	88.77	103.98	151.90	202	750	750	CONC	0.11	82.0	369.2322	0.8358	1.6352	0.546
To STREET '1', Pipe 33 - 38						3.07				0.00				0.00				0.00	15.13														
STREET '25'																																	
Contribution From STREET '23', Pipe 34 - 36						0.35				0.00				0.00				0.00	10.86														
Contribution From STREET '23', Pipe 35 - 36						0.37				0.00				0.00				0.00	10.70														
	36	37	0.02	0.67	0.04	0.76			0.00	0.00			0.00	0.00			0.00	0.00	10.86	73.64	99.84	117.01	171.02	56	375	375	PVC	0.30	13.0	96.0323	0.8695	0.2492	0.586
	37	38	0.48	0.67	0.89	1.66			0.00	0.00			0.00	0.00			0.00	0.00	11.11	72.78	98.65	115.62	168.98	121	750	750	CONC	0.11	127.5	369.2322	0.8358	2.5426	0.327
Contribution From STREET '1', Pipe 33 - 38						3.07				2.35				0.00				0.00	17.36														
	38	39	0.23	0.67	0.43	5.16			0.00	2.35			0.00	0.00			0.00	0.00	17.36	56.70	76.63	89.70	130.94	473	900	900	CONC	0.11	62.0	600.4123	0.9438	1.0949	0.787
To STREET '27', Pipe 39 - 40						5.16				2.35				0.00				0.00	18.46														
	16	17	0.23	0.67	0.43	0.43			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	33	300	300	PVC	0.35	43.0	57.2089	0.8093	0.8855	0.575
Contribution From STREET '24', Pipe 15 - 17						8.61				0.00				0.00				0.00	23.35														
	17	28	0.22	0.67	0.41	9.44			0.00	0.00			0.00	0.00			0.00	0.00	23.35	47.20	63.66	74.47	108.61	446	900	900	CONC	0.11	59.0	600.4123	0.9438	1.0419	0.742
Contribution From STREET '21', Pipe 27 - 28						5.64				0.00				0.00				0.00	19.82														
	28	OGS W4	0.08	0.67	0.15	15.24			0.00	0.00			0.00	0.00			0.00	0.00	24.39	45.89	61.89	72.39	105.55	699	1050	1050	CONC	0.11	27.5	905.6791	1.0459	0.4382	0.772

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.
Checked: W.L./V.W.
Dwg. Reference:

PROJECT: 1226 - Barrhaven Conservancy West
LOCATION: **City of Ottawa**
File Ref:
Date: 09 Dec 2022
Sheet No. SHEET 3 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA							
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
STREET '27'																																
Contribution From STREET '25', Pipe 38 - 39						5.16				2.35				0.00				0.00	18.46													
	39	40	0.22	0.67	0.41	5.57			0.00	2.35			0.00	0.00			0.00	0.00	18.46	54.65	73.83	86.41	126.11	478	975	975	CONC	0.11	64.5	743.2733	0.9955	1.0798	0.643
	40	41	0.20	0.67	0.37	5.94			0.00	2.35			0.00	0.00			0.00	0.00	19.54	52.79	71.28	83.42	121.73	481	975	975	CONC	0.11	49.5	743.2733	0.9955	0.8287	0.647
	41	42	0.14	0.67	0.26	6.20			0.00	2.35			0.00	0.00			0.00	0.00	20.37	51.45	69.46	81.28	118.58	482	975	975	CONC	0.11	13.0	743.2733	0.9955	0.2176	0.649
	42	46	0.63	0.67	1.17	7.38			0.00	2.35			0.00	0.00			0.00	0.00	20.58	51.11	68.99	80.73	117.79	539	975	975	CONC	0.11	107.5	743.2733	0.9955	1.7997	0.725
Contribution From STREET '28', Pipe 45 - 46						1.23				0.00				0.00				0.00	13.50													
			0.01	0.67	0.02	8.62			0.00	2.35			0.00	0.00			0.00	0.00														
	46	OGS W3	0.11	0.67	0.20	8.83			0.00	2.35			0.00	0.00			0.00	0.00	22.38	48.49	65.42	76.53	111.63	582	975	975	CONC	0.11	7.5	743.2733	0.9955	0.1256	0.783
STREET '7'																																
Contribution From STREET '1', Pipe 115 - 117						0.00				0.38				0.00				0.00	10.70													
Contribution From STREET '1', Pipe 116 - 117						0.00				0.23				0.00				0.00	10.35													
			0.15	0.80	0.33	0.33			0.00	0.60			0.00	0.00			0.00	0.00														
	117	118	0.21	0.68	0.40	0.73			0.00	0.60			0.00	0.00			0.00	0.00	10.70	74.21	100.62	117.93	172.37	115	750	750	CONC	0.11	78.5	369.2322	0.8358	1.5654	0.312
			0.15	0.80	0.33	1.06			0.00	0.60			0.00	0.00			0.00	0.00														
	118	120	0.22	0.68	0.42	1.48			0.00	0.60			0.00	0.00			0.00	0.00	12.27	69.07	93.56	109.62	160.18	159	750	750	CONC	0.11	84.5	369.2322	0.8358	1.6851	0.430
To STREET '29', Pipe 120 - 121						1.48				0.60				0.00				0.00	13.95													
STREET '6'																																
Contribution From STREET '1', Pipe 111 - 112						0.00				0.36				0.00				0.00	10.73													
	112	113	0.31	0.80	0.69	0.69			0.00	0.36			0.00	0.00			0.00	0.00	10.73	74.10	100.47	117.76	172.12	87	750	750	CONC	0.11	78.0	369.2322	0.8358	1.5555	0.236
	113	114	0.29	0.80	0.64	1.33			0.00	0.36			0.00	0.00			0.00	0.00	12.29	69.01	93.48	109.53	160.03	126	750	750	CONC	0.11	78.0	369.2322	0.8358	1.5555	0.340
To STREET '2', Pipe 114 - 120						1.33				0.36				0.00				0.00	13.84													
STREET '4'																																
	78	79	0.09	0.80	0.20	0.20			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	15	300	300	PVC	0.35	33.0	57.2089	0.8093	0.6796	0.269
To STREET '2', Pipe 79 - 81						0.20				0.00				0.00				0.00	10.68													
	78	103	0.43	0.80	0.96	0.96			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	73	750	750	CONC	0.11	107.5	369.2322	0.8358	2.1437	0.199
To STREET '5', Pipe 103 - 106						0.96				0.00				0.00				0.00	12.14													
STREET '3'																																
			0.23	0.80	0.51	0.51			0.00	0.00			0.00	0.00			0.00	0.00														
	80	102	0.31	0.68	0.59	1.10			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	84	450	450	CONC	0.20	115.5	127.5033	0.8017	2.4012	0.661
To STREET '5', Pipe 102 - 103						1.10				0.00				0.00				0.00	12.40													
STREET '1'																																
	111	112			0.00	0.00	0.19	0.68	0.36	0.36			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	37	600	600	CONC	0.15	37.0	237.8056	0.8411	0.7332	0.157
To STREET '6', Pipe 112 - 113						0.00				0.36				0.00				0.00	10.73													
	115	117			0.00	0.00	0.20	0.68	0.38	0.38			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	39	600	600	CONC	0.15	35.5	237.8056	0.8411	0.7035	0.166
To STREET '7', Pipe 117 - 118						0.00				0.38				0.00				0.00	10.70													
	116	117			0.00	0.00	0.12	0.68	0.23	0.23			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	24	600	600	CONC	0.15	17.5	237.8056	0.8411	0.3468	0.099
To STREET '7', Pipe 117 - 118						0.00				0.23				0.00				0.00	10.35													
	75	76			0.00	0.00	0.09	0.68	0.17	0.17			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	18	300	300	PVC	0.35	23.5	57.2089	0.8093	0.4839	0.310
To STREET '2', Pipe 76 - 81						0.00				0.17				0.00				0.00	10.48													
	75	101			0.00	0.00	0.77	0.68	1.46	1.46			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	152	525	525	CONC	0.20	115.5	192.3297	0.8885	2.1667	0.789
To STREET '5', Pipe 101 - 102						0.00				1.46				0.00				0.00	12.17													
	73	74			0.00	0.00	0.54	0.67	1.01	1.01			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	105	450	450	CONC	0.25	73.5	142.5531	0.8963	1.3667	0.735
	74	76			0.00	0.00	0.47	0.67	0.88	1.88			0.00	0.00			0.00	0.00	11.37	71.93	97.49	114.25	166.96	183	525	525	CONC	0.25	73.5	215.0311	0.9933	1.2332	0.853
To STREET '2', Pipe 76 - 81						0.00				1.88				0.00				0.00	12.60													

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.
Checked: W.L./V.W.
Dwg. Reference:

PROJECT: 1226 - Barrhaven Conservancy West
LOCATION: **City of Ottawa**
File Ref:
Date: 09 Dec 2022
Sheet No. SHEET 4 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

LOCATION			AREA (Ha) 2 YEAR				5 YEAR				10 YEAR				100 YEAR				FLOW						SEWER DATA								
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	Conc. (min)	2 Year (mm/h)	5 Year (mm/h)	10 Year (mm/h)	100 Year (mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
	32	33			0.00	0.00	0.30	0.67	0.56	0.56			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	58	300	300	PVC	0.50	32.0	68.3778	0.9673	0.5513	0.851
Contribution From STREET '23', Pipe 31 - 33						3.07				0.00				0.00				0.00	15.13														
					0.00	3.07	0.52	0.67	0.97	1.53			0.00	0.00			0.00	0.00															
	33	38			0.00	3.07	0.74	0.40	0.82	2.35			0.00	0.00			0.00	0.00	15.13	61.47	83.15	97.37	142.19	384	825	825	CONC	0.11	119.5	476.0801	0.8906	2.2363	0.807
To STREET '25', Pipe 38 - 39						3.07				2.35				0.00				0.00	17.36														
STREET '31'																																	
	91	93	0.52	0.67	0.97	0.97			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	74	375	375	PVC	0.30	70.0	96.0323	0.8695	1.3418	0.775
To STREET '16', Pipe 93 - 94						0.97				0.00				0.00				0.00	11.34														
STREET '16'																																	
	92	93	0.05	0.67	0.09	0.09			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	7	300	300	PVC	1.00	28.0	96.7008	1.3680	0.3411	0.074
Contribution From STREET '31', Pipe 91 - 93						0.97				0.00				0.00				0.00	11.34														
	93	94	0.04	0.67	0.07	1.14			0.00	0.00			0.00	0.00			0.00	0.00	11.34	72.01	97.60	114.38	167.16	82	450	450	CONC	0.20	30.5	127.5033	0.8017	0.6341	0.642
To STREET '13', Pipe 94 - 95						1.14				0.00				0.00				0.00	11.98														
			0.11	0.80	0.24	0.24			0.00	0.00			0.00	0.00			0.00	0.00															
	57	58	0.16	0.68	0.30	0.55			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	42	600	600	CONC	0.15	53.0	237.8056	0.8411	1.0503	0.177
Contribution From STREET '9', Pipe 56 - 58						0.80				0.49				0.00				0.00	12.66														
	58	62	0.14	0.80	0.31	1.66			0.00	0.49			0.00	0.00			0.00	0.00	12.66	67.91	91.98	107.76	157.43	158	600	600	CONC	0.15	49.5	237.8056	0.8411	0.9809	0.663
Contribution From STREET '15', Pipe 61 - 62						1.79				0.00				0.00				0.00	13.93														
	62	65	0.11	0.80	0.24	3.70			0.00	0.49			0.00	0.00			0.00	0.00	13.93	64.42	87.19	102.12	149.16	281	750	750	CONC	0.11	44.0	369.2322	0.8358	0.8774	0.760
To STREET '11', Pipe 65 - 67						3.70				0.49				0.00				0.00	14.81														
STREET '13'																																	
Contribution From STREET '16', Pipe 93 - 94						1.14				0.00				0.00				0.00	11.98														
	94	95	0.53	0.68	1.00	2.14			0.00	0.00			0.00	0.00			0.00	0.00	11.98	69.97	94.80	111.08	162.31	150	525	525	CONC	0.20	75.5	192.3297	0.8885	1.4163	0.778
	95	96	0.41	0.68	0.78	2.91			0.00	0.00			0.00	0.00			0.00	0.00	13.39	65.84	89.14	104.42	152.53	192	600	600	CONC	0.15	66.0	237.8056	0.8411	1.3079	0.807
To STREET '20', Pipe 96 - 100						2.91				0.00				0.00				0.00	14.70														
STREET '19'																																	
			0.12	0.80	0.27	0.27			0.00	0.00			0.00	0.00			0.00	0.00															
	68	98	0.16	0.68	0.30	0.57			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	44	450	450	CONC	0.20	60.5	127.5033	0.8017	1.2578	0.343
To STREET '12', Pipe 98 - 99						0.57				0.00				0.00				0.00	11.26														
			0.17	0.80	0.38	0.38			0.00	0.00			0.00	0.00			0.00	0.00															
	68	69	0.22	0.68	0.42	0.79			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	61	450	450	CONC	0.20	85.5	127.5033	0.8017	1.7775	0.478
To STREET '11', Pipe 69 - 70						0.79				0.00				0.00				0.00	11.78														
STREET '18'																																	
	66	97	0.24	0.80	0.53	0.53			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	41	450	450	CONC	0.20	60.5	127.5033	0.8017	1.2578	0.322
To STREET '12', Pipe 97 - 98						0.53				0.00				0.00				0.00	11.26														
	66	67	0.34	0.80	0.76	0.76			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	58	450	450	CONC	0.20	85.5	127.5033	0.8017	1.7775	0.455
To STREET '11', Pipe 67 - 69						0.76				0.00				0.00				0.00	11.78														
STREET '12'																																	
	57	97	0.17	0.68	0.32	0.32			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	25	600	600	CONC	0.15	44.5	237.8056	0.8411	0.8818	0.104
Contribution From STREET '18', Pipe 66 - 97						0.53				0.00				0.00				0.00	11.26														
	97	98	0.18	0.68	0.34	1.20			0.00	0.00			0.00	0.00			0.00	0.00	11.26	72.29	97.99	114.83	167.82	86	600	600	CONC	0.15	44.0	237.8056	0.8411	0.8719	0.363
Contribution From STREET '19', Pipe 68 - 98						0.57				0.00				0.00				0.00	11.26														
	98	99	0.23	0.68	0.43	2.20			0.00	0.00			0.00	0.00			0.00	0.00	12.13	69.49	94.15	110.31	161.18	153	600	600	CONC	0.15	62.5	237.8056	0.8411	1.2385	0.643
To STREET '20', Pipe 99 - 100						2.20				0.00				0.00				0.00	13.37														

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West		
Checked: W.L./V.W.	LOCATION: **City of Ottawa**		
Dwg. Reference:	File Ref:	Date: 09 Dec 2022	Sheet No. SHEET 5 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA							
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
STREET '20'																																
	71	72	0.50	0.68	0.95	0.95			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	73	750	750	CONC	0.11	72.5	369.2322	0.8358	1.4458	0.197
To STREET '17', Pipe 72 - 76						0.95				0.00				0.00				0.00	11.45														
Contribution From STREET '12', Pipe 98 - 99						2.20				0.00				0.00				0.00	13.37														
	99	100	0.21	0.68	0.40	2.60			0.00	0.00			0.00	0.00			0.00	0.00	13.37	65.91	89.23	104.52	152.69	171	750	750	CONC	0.11	56.5	369.2322	0.8358	1.1267	0.463
To Centerline 1001, Pipe 100 - 101						2.60				0.00				0.00				0.00	14.49														
Contribution From STREET '13', Pipe 95 - 96						2.91				0.00				0.00				0.00	14.70														
	96	100	0.16	0.68	0.30	3.22			0.00	0.00			0.00	0.00			0.00	0.00	14.70	62.48	84.54	99.01	144.59	201	750	750	CONC	0.11	16.5	369.2322	0.8358	0.3290	0.544
To Centerline 1001, Pipe 100 - 101						3.22				0.00				0.00				0.00	15.03														
Contribution From STREET '10', Pipe 53 - 54						3.60				0.00				0.00				0.00	17.20														
	54	70	0.19	0.67	0.35	3.96			0.00	0.00			0.00	0.00			0.00	0.00	17.20	57.02	77.06	90.21	131.68	226	750	750	CONC	0.11	48.0	369.2322	0.8358	0.9572	0.611
Contribution From STREET '11', Pipe 69 - 70						7.70				0.49				0.00				0.00	17.52														
			0.18	0.68	0.34	12.00			0.00	0.49			0.00	0.00			0.00	0.00															
	70	72	0.19	0.67	0.35	12.35			0.00	0.49			0.00	0.00			0.00	0.00	18.16	55.19	74.57	87.28	127.39	718	1050	1050	CONC	0.11	63.0	905.6791	1.0459	1.0039	0.793
To STREET '17', Pipe 72 - 76						12.35				0.49				0.00				0.00	19.16														
Centerline 1001																																
Contribution From STREET '20', Pipe 96 - 100						3.22				0.00				0.00				0.00	15.03														
Contribution From STREET '20', Pipe 99 - 100						2.60				0.00				0.00				0.00	14.49														
	100	101	0.05	0.67	0.09	5.91			0.00	0.00			0.00	0.00			0.00	0.00	15.03	61.70	83.46	97.74	142.73	364	825	825	CONC	0.11	67.5	476.0801	0.8906	1.2632	0.765
To STREET '5', Pipe 101 - 102						5.91				0.00				0.00				0.00	16.29														
STREET '5'																																
Contribution From Centerline 1001, Pipe 100 - 101						5.91				0.00				0.00				0.00	16.29														
Contribution From STREET '1', Pipe 750 - 101						0.00				1.46				0.00				0.00	12.17														
	101	102	0.16	0.80	0.36	6.26			0.00	1.46			0.00	0.00			0.00	0.00	16.29	58.88	79.60	93.20	136.07	485	900	900	CONC	0.11	60.0	600.4123	0.9438	1.0596	0.807
Contribution From STREET '3', Pipe 800 - 102						1.10				0.00				0.00				0.00	12.40														
	102	103	0.14	0.80	0.31	7.67			0.00	1.46			0.00	0.00			0.00	0.00	17.35	56.72	76.66	89.74	130.99	547	975	975	CONC	0.11	49.0	743.2733	0.9955	0.8203	0.735
Contribution From STREET '4', Pipe 780 - 103						0.96				0.00				0.00				0.00	12.14														
	103	106	0.11	0.80	0.24	8.87			0.00	1.46			0.00	0.00			0.00	0.00	18.17	55.17	74.54	87.25	127.33	598	975	975	CONC	0.11	47.5	743.2733	0.9955	0.7952	0.804
To STREET '2', Pipe 106 - 108						8.87				1.46				0.00				0.00	18.97														
STREET '2'																																
	107	108			0.00	0.00	0.03	0.67	0.06	0.06			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	6	600	600	CONC	0.15	13.0	237.8056	0.8411	0.2576	0.024
To STREET '29', Pipe 108 - 109						0.00				0.06				0.00				0.00	10.26														
	119	120			0.00	0.00	0.12	0.67	0.22	0.22			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	23	600	600	CONC	0.15	14.5	237.8056	0.8411	0.2873	0.098
To STREET '29', Pipe 120 - 121						0.00				0.22				0.00				0.00	10.29														
	77	79			0.00	0.00	0.16	0.68	0.30	0.30			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	32	300	300	PVC	0.35	36.0	57.2089	0.8093	0.7413	0.551
Contribution From STREET '4', Pipe 78 - 79						0.20				0.00				0.00				0.00	10.68														
	79	81			0.00	0.20	0.18	0.68	0.34	0.64			0.00	0.00			0.00	0.00	10.74	74.07	100.43	117.71	172.05	79	375	375	PVC	0.30	49.0	96.0323	0.8695	0.9392	0.827
To STREET '8', Pipe 81 - 82						0.20				0.64				0.00				0.00	11.68														
Contribution From STREET '6', Pipe 113 - 114						1.33				0.36				0.00				0.00	13.84														
	114	120			0.00	1.33	0.09	0.67	0.17	0.53			0.00	0.00			0.00	0.00	13.84	64.64	87.49	102.48	149.68	132	750	750	CONC	0.11	44.5	369.2322	0.8358	0.8874	0.358
To STREET '29', Pipe 120 - 121						1.33				0.53				0.00				0.00	14.73														
	77	104			0.00	0.00	0.10	0.68	0.19	0.19			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	20	300	300	PVC	0.40	13.0	61.1589	0.8652	0.2504	0.322
	104	105			0.00	0.00	0.24	0.80	0.53	0.72			0.00	0.00			0.00	0.00	10.25	75.86	102.89	120.61	176.30	74	375	375	PVC	0.50	67.0	123.9771	1.1225	0.9948	0.600
	105	106			0.00	0.00	0.23	0.80	0.51	1.23			0.00	0.00			0.00	0.00	11.25	72.33	98.05	114.90	167.92	121	750	750	CONC	0.11	67.0	369.2322	0.8358	1.3361	0.328
Contribution From STREET '5', Pipe 103 - 106						8.87				1.46				0.00				0.00	18.97														
	106	108			0.00	8.87	0.05	0.67	0.09	2.78			0.00	0.00			0.00	0.00	18.97	53.75	72.60	84.97	124.00	679	1050	1050	CONC	0.11	25.0	905.6791	1.0459	0.3984	0.750
To STREET '29', Pipe 108 - 109						8.87				2.78				0.00				0.00	19.37														

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West		
Checked: W.L./V.W.	LOCATION: **City of Ottawa**		
Dwg. Reference:	File Ref:	Date: 09 Dec 2022	Sheet No. SHEET 6 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
Contribution From STREET '17', Pipe 72 - 76						13.48				0.49				0.00				0.00	20.16														
Contribution From STREET '1', Pipe 74 - 76						0.00				1.88				0.00				0.00	12.60														
Contribution From STREET '1', Pipe 75 - 76						0.00				0.17				0.00				0.00	10.48														
	76	81			0.00	13.48	0.12	0.67	0.22	2.76			0.00	0.00			0.00	0.00	20.16	51.77	69.90	81.80	119.34	891	1200	1200	CONC	0.11	60.0	1293.0625	1.1433	0.8746	0.689
To STREET '8', Pipe 81 - 82						13.48				2.76				0.00				0.00	21.04														
STREET '29'																																	
Contribution From STREET '2', Pipe 106 - 108						8.87				2.78				0.00				0.00	19.37														
Contribution From STREET '2', Pipe 107 - 108						0.00				0.06				0.00				0.00	10.26														
			0.16	0.67	0.30	9.17			0.00	2.84			0.00	0.00			0.00	0.00															
	108	109			0.00	9.17	0.44	0.40	0.49	3.33			0.00	0.00			0.00	0.00	19.37	53.07	71.67	83.88	122.40	725	1050	1050	CONC	0.11	50.5	905.6791	1.0459	0.8047	0.801
	109	110	0.01	0.67	0.02	9.19			0.00	3.33			0.00	0.00			0.00	0.00	20.17	51.76	69.88	81.77	119.31	708	1050	1050	CONC	0.11	12.0	905.6791	1.0459	0.1912	0.782
	110	121	0.08	0.67	0.15	9.34			0.00	3.33			0.00	0.00			0.00	0.00	20.36	51.46	69.47	81.29	118.60	712	1050	1050	CONC	0.11	59.0	905.6791	1.0459	0.9401	0.786
Contribution From STREET '2', Pipe 114 - 120						1.33				0.53				0.00				0.00	14.73														
Contribution From STREET '7', Pipe 118 - 120						1.48				0.60				0.00				0.00	13.95														
Contribution From STREET '2', Pipe 119 - 120						0.00				0.22				0.00				0.00	10.29														
	120	121	0.28	0.67	0.52	3.34			0.00	1.36			0.00	0.00			0.00	0.00	14.73	62.41	84.43	98.88	144.41	323	825	825	CONC	0.11	73.5	476.0801	0.8906	1.3755	0.678
	121	OGS W1	0.03	0.67	0.06	12.73			0.00	4.68			0.00	0.00			0.00	0.00	21.30	50.03	67.52	79.00	115.24	953	1200	1200	CONC	0.11	5.5	1293.0625	1.1433	0.0802	0.737

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West		
Checked: W.L./V.W.	LOCATION: **City of Ottawa**		
Dwg. Reference:	File Ref:	Date: 09 Dec 2022	Sheet No. SHEET 7 OF 7

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION
BASED ON THE RATIONAL RAINFALL METHOD
BASED ON A FINE PARTICLE SIZE DISTRIBUTION

Project Name:	Conservancy West	**Engineer:**	**DSEL**
Location:	Ottawa, ON	**Contact:**	K. Murphy
OGS #:	W1	**Report Date:**	7-Dec-22

Area	8.92	ha	**Rainfall Station #**	215	
Weighted C	0.70		**Particle Size Distribution**	FINE	
CDS Model	5640	(OFFLINE)	**CDS Treatment Capacity**	255	l/s

Rainfall Intensity[1] (mm/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (l/s)	Treated Flowrate (l/s)	Operating Rate (%)	Removal Efficiency (%)	Incremental Removal (%)
1.0	10.6%	19.8%	17.4	17.4	6.8	96.9	10.3
1.5	9.9%	29.7%	26.0	26.0	10.2	95.9	9.5
2.0	8.4%	38.1%	34.7	34.7	13.6	95.0	8.0
2.5	7.7%	45.8%	43.4	43.4	17.0	94.0	7.2
3.0	5.9%	51.7%	52.1	52.1	20.4	93.0	5.5
3.5	4.4%	56.1%	60.8	60.8	23.8	92.0	4.0
4.0	4.7%	60.7%	69.4	69.4	27.2	91.0	4.2
4.5	3.3%	64.0%	78.1	78.1	30.6	90.1	3.0
5.0	3.0%	67.1%	86.8	86.8	34.1	89.1	2.7
6.0	5.4%	72.4%	104.1	104.1	40.9	87.1	4.7
7.0	4.4%	76.8%	121.5	121.5	47.7	85.2	3.7
8.0	3.5%	80.3%	138.9	138.9	54.5	83.2	2.9
9.0	2.8%	83.2%	156.2	156.2	61.3	81.3	2.3
10.0	2.2%	85.3%	173.6	173.6	68.1	79.3	1.7
15.0	7.0%	92.3%	260.4	254.9	100.0	68.7	4.8
20.0	4.5%	96.9%	347.2	254.9	100.0	51.5	2.3
25.0	1.4%	98.3%	434.0	254.9	100.0	41.2	0.6
30.0	0.7%	99.0%	520.7	254.9	100.0	34.4	0.2
35.0	0.5%	99.5%	607.5	254.9	100.0	29.4	0.1
40.0	0.5%	100.0%	694.3	254.9	100.0	25.8	0.1
							87.0
						Removal Efficiency Adjustment[2] =	6.5%
						Predicted Net Annual Load Removal Efficiency =	**80.5%**
						Predicted Annual Rainfall Treated =	**97.1%**

1 - Based on 42 years of hourly rainfall data from Canadian Station 6105976, Ottawa ON
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.
3 - CDS Efficiency based on testing conducted at the University of Central Florida
4 - CDS design flowrate and scaling based on standard manufacturer model & product specifications

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION
BASED ON THE RATIONAL RAINFALL METHOD
BASED ON A FINE PARTICLE SIZE DISTRIBUTION

Project Name: Conservancy West
Location: Ottawa, ON
OGS #: W2
Engineer: DSEL
Contact: K. Murphy
Report Date: 7-Dec-22

Area	10.75	ha	**Rainfall Station #**	215	
Weighted C	0.69		**Particle Size Distribution**	FINE	
CDS Model	5653	(OFFLINE)	**CDS Treatment Capacity**	396	l/s

Rainfall Intensity[1] (mm/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (l/s)	Treated Flowrate (l/s)	Operating Rate (%)	Removal Efficiency (%)	Incremental Removal (%)
1.0	10.6%	19.8%	20.6	20.6	5.2	97.4	10.3
1.5	9.9%	29.7%	30.9	30.9	7.8	96.6	9.6
2.0	8.4%	38.1%	41.2	41.2	10.4	95.9	8.0
2.5	7.7%	45.8%	51.6	51.6	13.0	95.1	7.3
3.0	5.9%	51.7%	61.9	61.9	15.6	94.4	5.6
3.5	4.4%	56.1%	72.2	72.2	18.2	93.6	4.1
4.0	4.7%	60.7%	82.5	82.5	20.8	92.9	4.3
4.5	3.3%	64.0%	92.8	92.8	23.4	92.1	3.1
5.0	3.0%	67.1%	103.1	103.1	26.0	91.4	2.8
6.0	5.4%	72.4%	123.7	123.7	31.2	89.9	4.8
7.0	4.4%	76.8%	144.3	144.3	36.4	88.4	3.8
8.0	3.5%	80.3%	165.0	165.0	41.6	86.9	3.1
9.0	2.8%	83.2%	185.6	185.6	46.8	85.4	2.4
10.0	2.2%	85.3%	206.2	206.2	52.0	83.9	1.8
15.0	7.0%	92.3%	309.3	309.3	78.0	76.5	5.3
20.0	4.5%	96.9%	412.4	396.5	100.0	67.5	3.1
25.0	1.4%	98.3%	515.5	396.5	100.0	54.0	0.8
30.0	0.7%	99.0%	618.6	396.5	100.0	45.0	0.3
35.0	0.5%	99.5%	721.7	396.5	100.0	38.6	0.2
40.0	0.5%	100.0%	824.8	396.5	100.0	33.7	0.2
							90.0
						Removal Efficiency Adjustment[2] =	6.5%
						Predicted Net Annual Load Removal Efficiency =	**83.5%**
						Predicted Annual Rainfall Treated =	**98.8%**

1 - Based on 42 years of hourly rainfall data from Canadian Station 6105976, Ottawa ON
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.
3 - CDS Efficiency based on testing conducted at the University of Central Florida
4 - CDS design flowrate and scaling based on standard manufacturer model & product specifications

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION
BASED ON THE RATIONAL RAINFALL METHOD
BASED ON A FINE PARTICLE SIZE DISTRIBUTION

Project Name: Conservancy West
Location: Ottawa, ON
OGS #: W3
Engineer: DSEL
Contact: K. Murphy
Report Date: 7-Dec-22

Area	6.30	ha	**Rainfall Station #**	215	
Weighted C	0.64		**Particle Size Distribution**	FINE	
CDS Model	4040	(OFFLINE)	**CDS Treatment Capacity**	170	l/s

Rainfall Intensity[1] (mm/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (l/s)	Treated Flowrate (l/s)	Operating Rate (%)	Removal Efficiency (%)	Incremental Removal (%)
1.0	10.6%	19.8%	11.2	11.2	6.6	97.0	10.3
1.5	9.9%	29.7%	16.8	16.8	9.9	96.0	9.5
2.0	8.4%	38.1%	22.4	22.4	13.2	95.1	8.0
2.5	7.7%	45.8%	28.0	28.0	16.5	94.1	7.2
3.0	5.9%	51.7%	33.6	33.6	19.8	93.2	5.5
3.5	4.4%	56.1%	39.2	39.2	23.1	92.2	4.0
4.0	4.7%	60.7%	44.8	44.8	26.4	91.3	4.3
4.5	3.3%	64.0%	50.4	50.4	29.7	90.3	3.0
5.0	3.0%	67.1%	56.0	56.0	33.0	89.4	2.7
6.0	5.4%	72.4%	67.3	67.3	39.6	87.5	4.7
7.0	4.4%	76.8%	78.5	78.5	46.2	85.6	3.7
8.0	3.5%	80.3%	89.7	89.7	52.8	83.7	3.0
9.0	2.8%	83.2%	100.9	100.9	59.4	81.8	2.3
10.0	2.2%	85.3%	112.1	112.1	66.0	79.9	1.7
15.0	7.0%	92.3%	168.1	168.1	98.9	70.5	4.9
20.0	4.5%	96.9%	224.2	169.9	100.0	53.2	2.4
25.0	1.4%	98.3%	280.2	169.9	100.0	42.6	0.6
30.0	0.7%	99.0%	336.3	169.9	100.0	35.5	0.2
35.0	0.5%	99.5%	392.3	169.9	100.0	30.4	0.1
40.0	0.5%	100.0%	448.4	169.9	100.0	26.6	0.1
							87.4
						Removal Efficiency Adjustment[2] =	6.5%
						Predicted Net Annual Load Removal Efficiency =	**80.9%**
						Predicted Annual Rainfall Treated =	**97.4%**

1 - Based on 42 years of hourly rainfall data from Canadian Station 6105976, Ottawa ON
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.
3 - CDS Efficiency based on testing conducted at the University of Central Florida
4 - CDS design flowrate and scaling based on standard manufacturer model & product specifications

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION
BASED ON THE RATIONAL RAINFALL METHOD
BASED ON A FINE PARTICLE SIZE DISTRIBUTION

Project Name: Conservancy West
Location: Ottawa, ON
OGS #: W4
Engineer: DSEL
Contact: K. Murphy
Report Date: 7-Dec-22

Area	8.18	ha	**Rainfall Station #**	215	
Weighted C	0.67		**Particle Size Distribution**	FINE	
CDS Model	5640	(OFFLINE)	**CDS Treatment Capacity**	255	l/s

Rainfall Intensity[1] (mm/hr)	Percent Rainfall Volume[1]	Cumulative Rainfall Volume	Total Flowrate (l/s)	Treated Flowrate (l/s)	Operating Rate (%)	Removal Efficiency (%)	Incremental Removal (%)
1.0	10.6%	19.8%	15.2	15.2	6.0	97.1	10.3
1.5	9.9%	29.7%	22.9	22.9	9.0	96.3	9.5
2.0	8.4%	38.1%	30.5	30.5	12.0	95.4	8.0
2.5	7.7%	45.8%	38.1	38.1	14.9	94.6	7.3
3.0	5.9%	51.7%	45.7	45.7	17.9	93.7	5.6
3.5	4.4%	56.1%	53.3	53.3	20.9	92.9	4.0
4.0	4.7%	60.7%	60.9	60.9	23.9	92.0	4.3
4.5	3.3%	64.0%	68.6	68.6	26.9	91.1	3.0
5.0	3.0%	67.1%	76.2	76.2	29.9	90.3	2.7
6.0	5.4%	72.4%	91.4	91.4	35.9	88.6	4.8
7.0	4.4%	76.8%	106.7	106.7	41.8	86.9	3.8
8.0	3.5%	80.3%	121.9	121.9	47.8	85.1	3.0
9.0	2.8%	83.2%	137.1	137.1	53.8	83.4	2.4
10.0	2.2%	85.3%	152.4	152.4	59.8	81.7	1.8
15.0	7.0%	92.3%	228.5	228.5	89.7	73.2	5.1
20.0	4.5%	96.9%	304.7	254.9	100.0	58.7	2.7
25.0	1.4%	98.3%	380.9	254.9	100.0	47.0	0.7
30.0	0.7%	99.0%	457.1	254.9	100.0	39.1	0.3
35.0	0.5%	99.5%	533.3	254.9	100.0	33.5	0.2
40.0	0.5%	100.0%	609.4	254.9	100.0	29.4	0.2
							88.5

Removal Efficiency Adjustment[2] = 6.5%
Predicted Net Annual Load Removal Efficiency = 82.0%
Predicted Annual Rainfall Treated = 97.9%

1 - Based on 42 years of hourly rainfall data from Canadian Station 6105976, Ottawa ON
2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.
3 - CDS Efficiency based on testing conducted at the University of Central Florida
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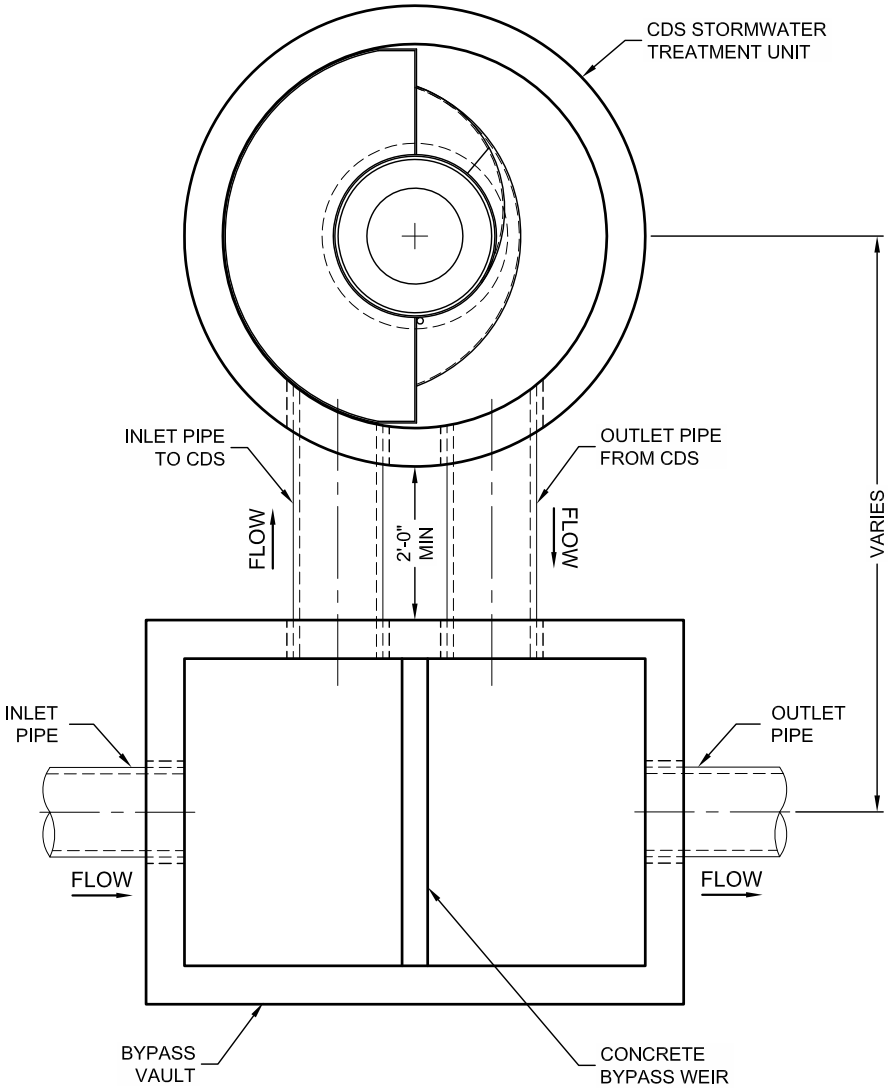

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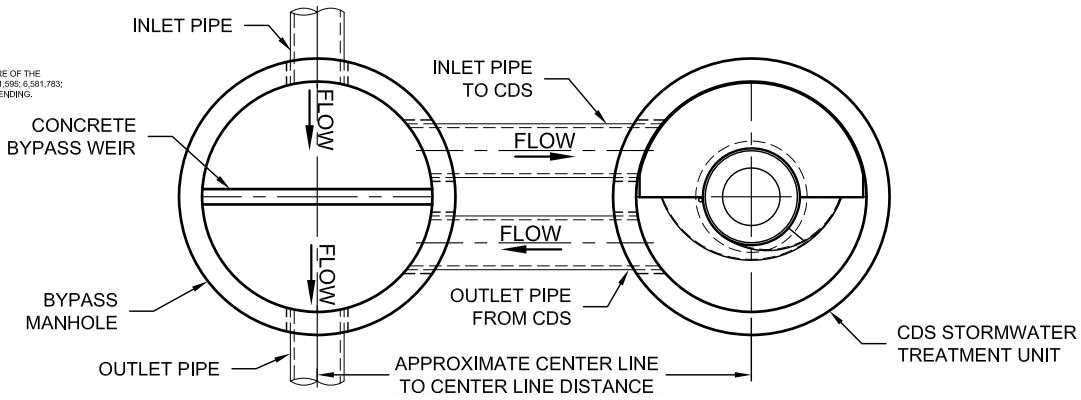
CDS STORMWATER TREATMENT SYSTEM
TYPICAL OFFLINE LAYOUT
WITH BYPASS VAULT STRUCTURE

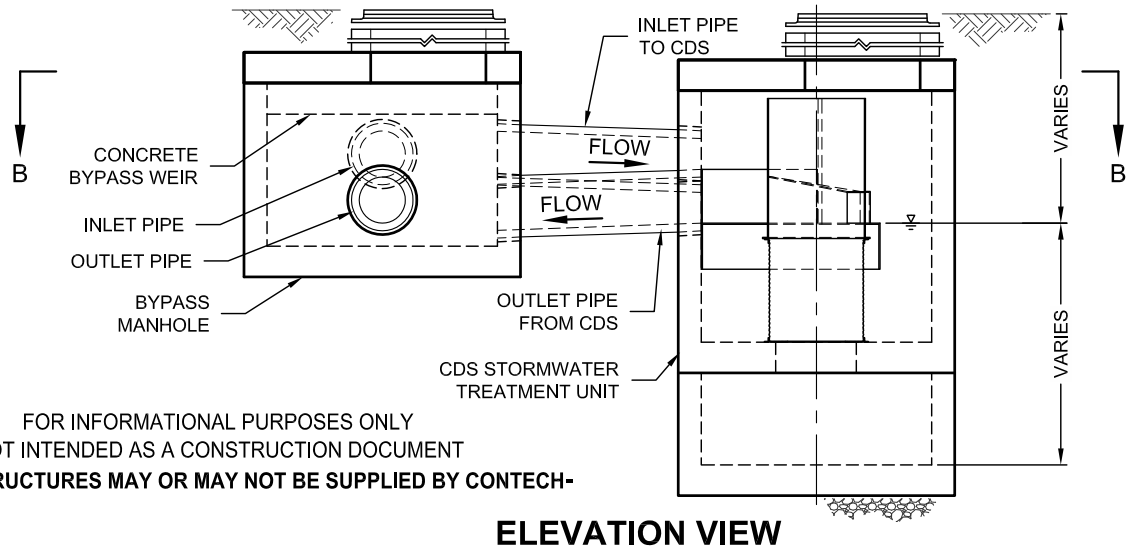
DATE:03/12/13	SCALE: NONE	PROJECT No.: N/A	SEQ. No.: N/A	DRAWN: N/A	CHECKED: N/A

I:\STORMWATER\COMMOPS\22 CDS\40 STANDARD DRAWINGS\OFFLINE LAYOUTS DWG\OFFLINE CDS-C LAYOUT BYPASS VAULT STRUCTURE.DWG 3/12/2013 3:35 PM

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.



PLAN VIEW B-B
N.T.S.



FOR INFORMATIONAL PURPOSES ONLY
NOT INTENDED AS A CONSTRUCTION DOCUMENT
- BYPASS STRUCTURES MAY OR MAY NOT BE SUPPLIED BY CONTECH-

ELEVATION VIEW
N.T.S.

NOTE: BYPASS AND JUNCTION MANHOLE DIAMETERS ARE ASSUMED BASED ON THE TREATMENT CAPACITY OF THE CDS SYSTEM. THESE DIAMETERS MAY CHANGE DEPENDING ON SPECIFIC SITE CONDITIONS. CONTACT YOUR CONTECH ENGINEERED SOLUTIONS DESIGN ENGINEER.

CDS CONCENTRIC OFFLINE SPECIFICATIONS				
CDS MODEL	CDS INSIDE DIAMETER (ft/mm)	RECOMMENDED PIPE SIZE (in/mm)	TYPICAL BYPASS MANHOLE INSIDE DIAMETER (ft/mm)	APPROXIMATE CENTER LINE TO CENTER LINE DISTANCE (ft/mm)
2015-4-C	4/1219	10/250	4/1219	9/2743
2015-5-C	5/1524	10/250	5/1524	9.5/2896
2020-5-C	5/1524	12/300	5/1524	10/3048
2025-5-C	5/1524	12/300	5/1524	10/3048
3020-6-C	6/1829	15/375	6/1829	11/3353
3025-6-C	6/1829	15/375	6/1829	11/3353
3030-6-C	6/1829	18/450	6/1829	11/3353
3035-6-C	6/1829	18/450	6/1829	11/3353
4030-8-C	8/2438	24/600	8/2438	13/3962
4040-8-C	8/2438	24/600	8/2438	13/3962
4045-8-C	8/2438	24/600	8/2438	13/3962
5640-10-C	10/3048	30/750	10/3048	15/4572
5653-10-C	10/3048	30/750	10/3048	15/4572
5668-10-C	10/3048	30/750	10/3048	15/4572
5678-10-C	10/3048	30/750	10/3048	15/4572

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
200 Enterprise Drive, Scarborough, ME 04074
877-907-8676 207-885-9830 207-885-9825 FAX

CDS STORMWATER TREATMENT SYSTEM
TYPICAL OFFLINE LAYOUT
WITH BYPASS MANHOLE STRUCTURE

DATE: 3/4/14	SCALE: NONE	FILE NAME: TYPTBLCDSBPR-M	DRAWN: DWB	CHECKED:

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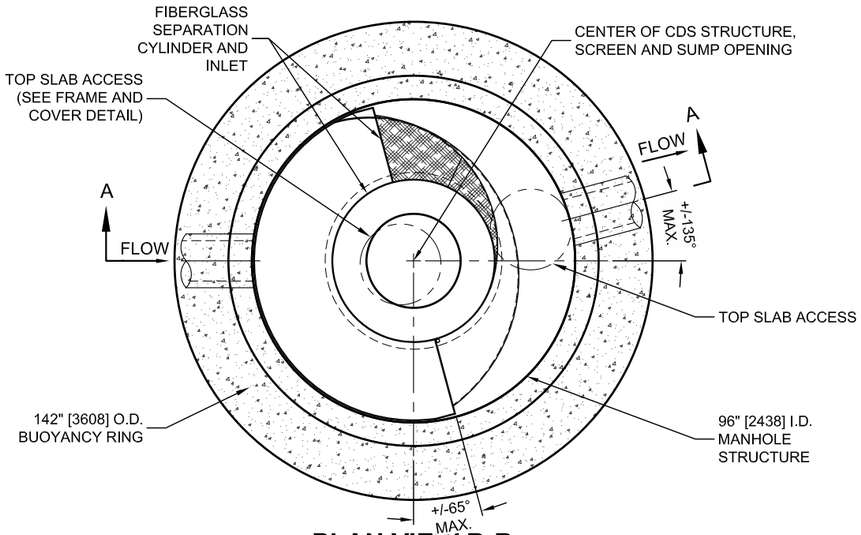
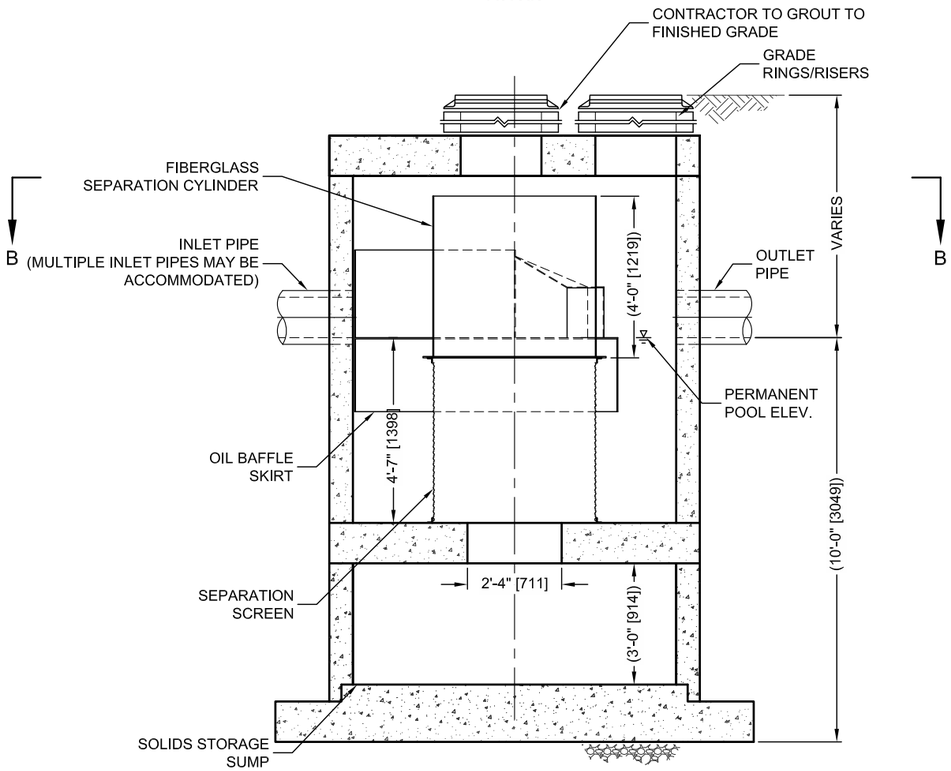


PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

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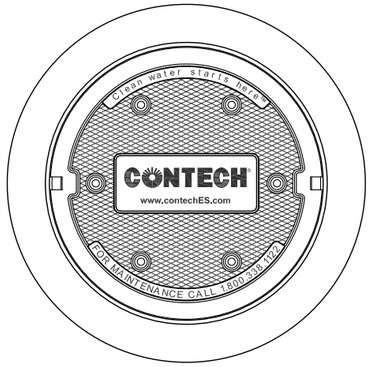
CDS PMSU4040-8-C DESIGN NOTES

THE STANDARD CDS PMSU4040-8-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS PMSU4040-8-C
INLINE CDS
STANDARD DETAIL

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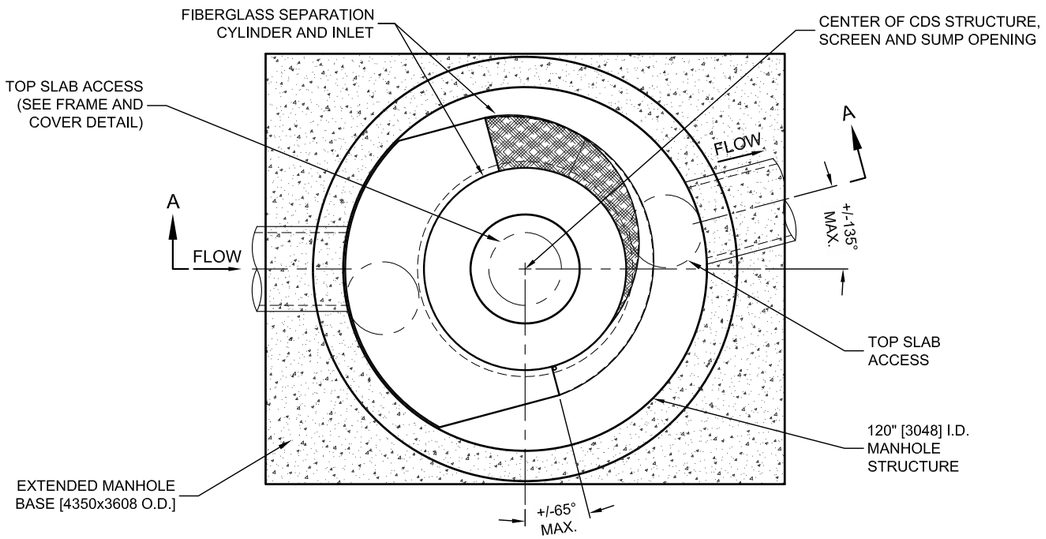
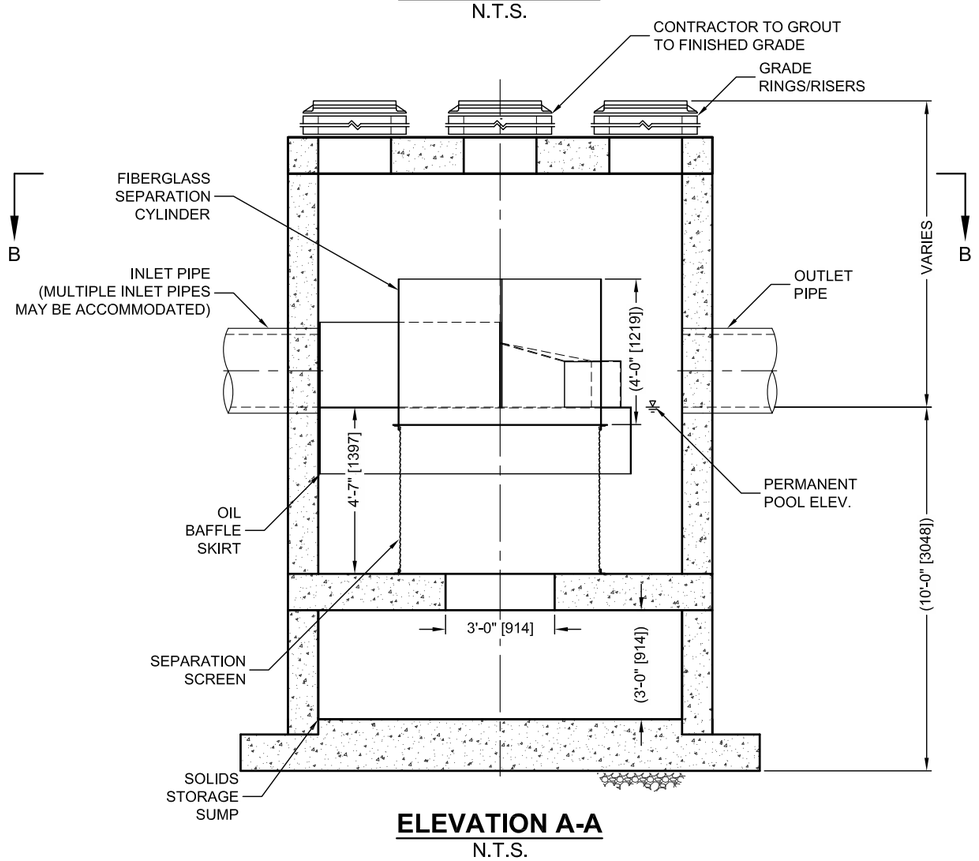


PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

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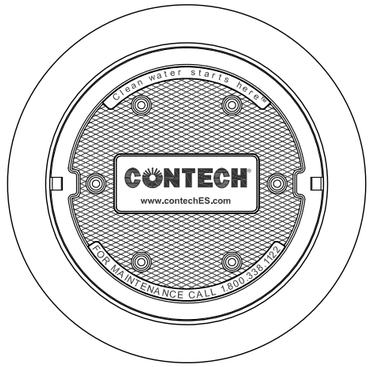
CDS PMSU5640-10-C DESIGN NOTES

THE STANDARD CDS PMSU5640-10-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
CUSTOMIZABLE SUMP DEPTH AVAILABLE
ANTI-FLOTATION DESIGN AVAILABLE UPON REQUEST



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

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C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
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CDS PMSU5640-10-C
INLINE CDS
STANDARD DETAIL

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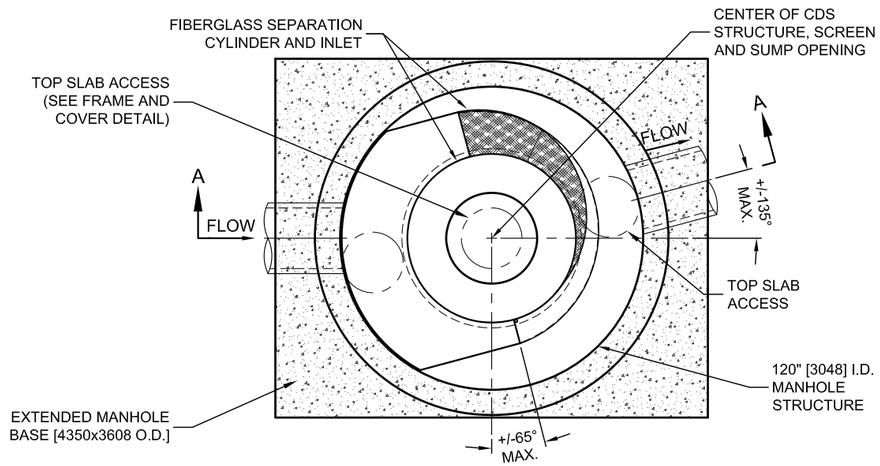
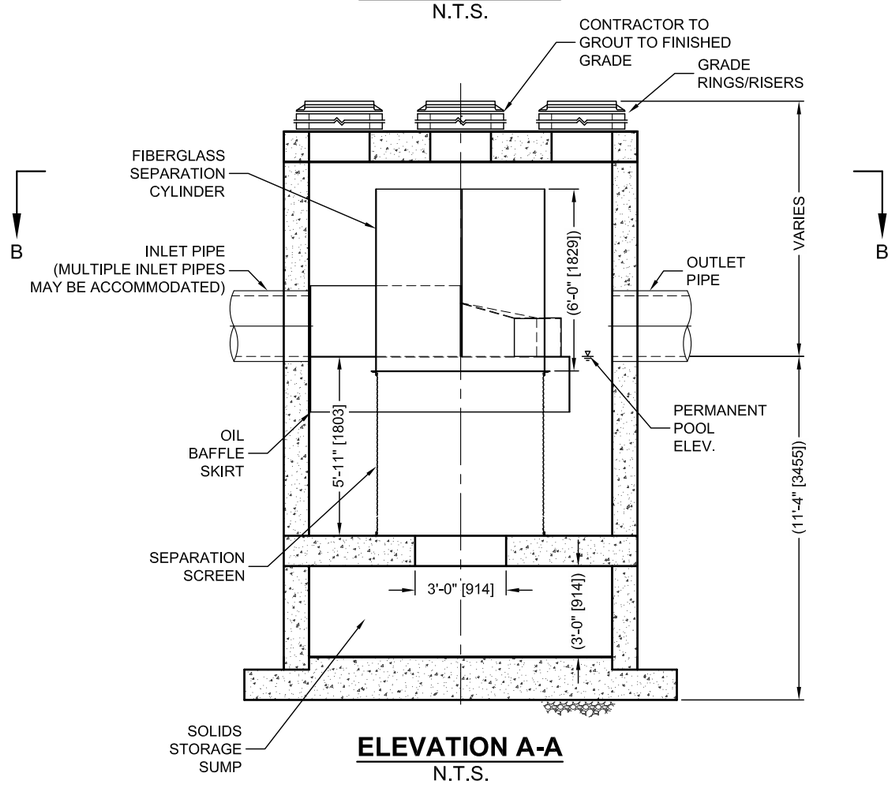


PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

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CDS PMSU5653-10-C DESIGN NOTES

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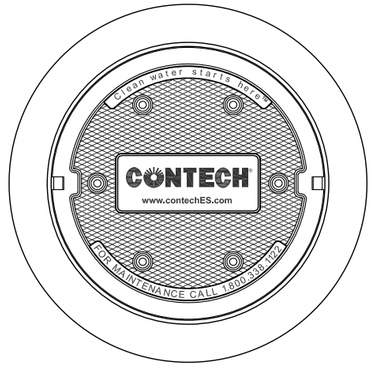
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
CUSTOMIZABLE SUMP DEPTH AVAILABLE
ANTI-FLOTATION DESIGN AVAILABLE UPON REQUEST



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (CFS OR L/s)	*
PEAK FLOW RATE (CFS OR L/s)	*
RETURN PERIOD OF PEAK FLOW (YRS)	*
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

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5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

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D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
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800-338-1122 513-645-7000 513-645-7993 FAX

CDS PMSU5653-10-C
INLINE CDS
STANDARD DETAIL

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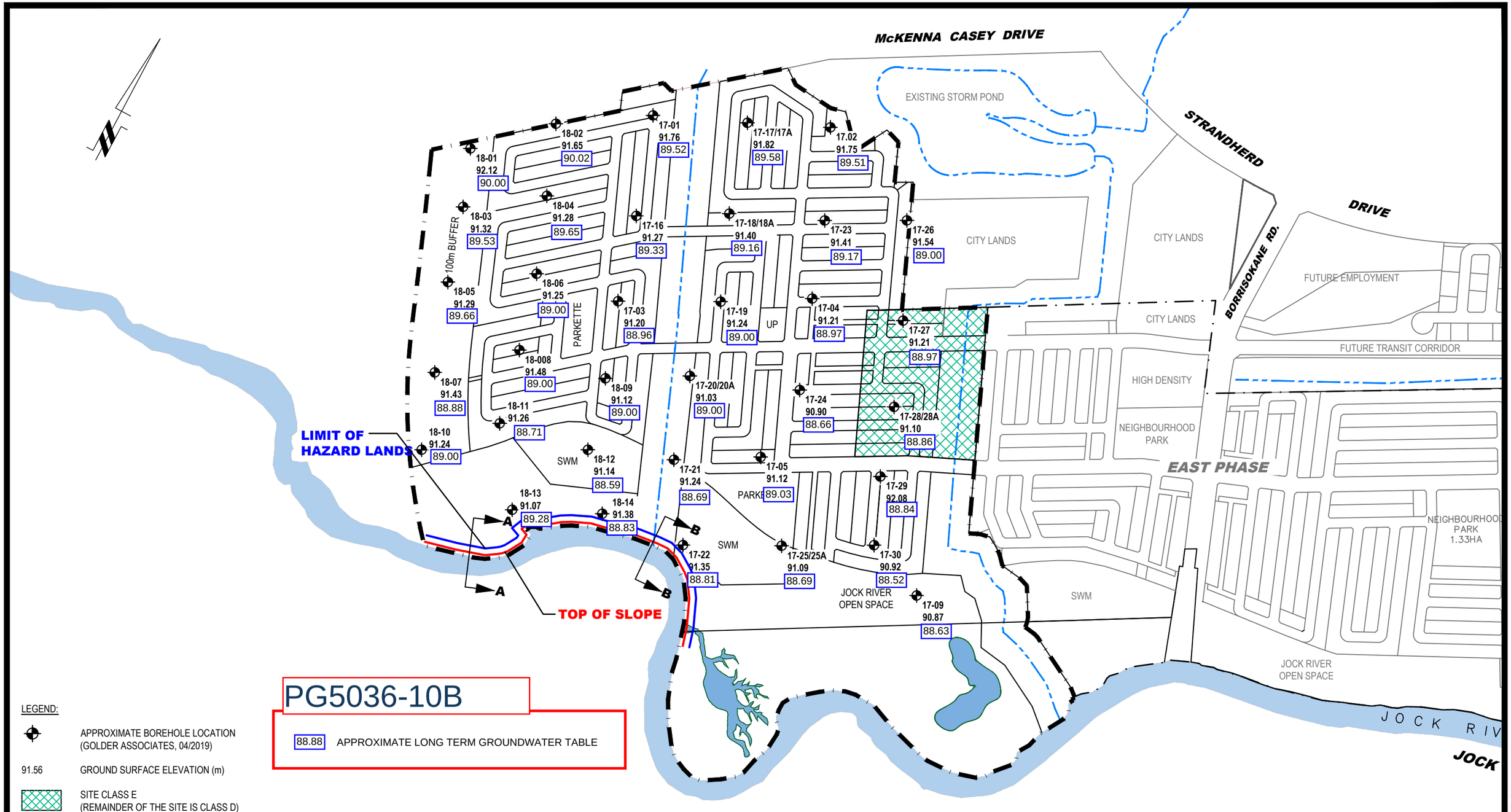

PG5036-10B

LEGEND:

- APPROXIMATE BOREHOLE LOCATION (GOLDER ASSOCIATES, 04/2019)
- 91.56 GROUND SURFACE ELEVATION (m)
- SITE CLASS E (REMAINDER OF THE SITE IS CLASS D)
- 88.88 APPROXIMATE LONG TERM GROUNDWATER TABLE

BOREHOLE LOCATIONS WERE SURVEYED BY OTHERS AND ARE REFERENCED TO A GEODETIC DATUM.

patersongroup
consulting engineers
154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL
0			

CAIVAN COMMUNITIES

GEOTECHNICAL INVESTIGATION
PROP. RESIDENTIAL DEVELOPMENT - CONSERVANCY LANDS WEST
OTTAWA, ONTARIO

Title:

TEST HOLE LOCATION PLAN

Scale: 1:6000	Date: 09/2019
Drawn by: MPG	Report No.: PG5036-2
Checked by: SD	**PG5036-4**
Approved by: SD	Revision No.:

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J.F. Sabourin and Associates Inc.
52 Springbrook Drive,
Ottawa, ON K2S 1B9
T 613-836-3884 F 613-836-0332

jfsa.com

Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

December 13, 2022 Project Number: 1474

David Schaeffer Engineering Ltd
120 Iber Road, Unit 103
Ottawa, Ontario
K2S 1E9

Attention: **Kevin Murphy, P.Eng**

Subject: **Barrhaven Conservancy West – Preliminary HGL Analysis**

Introduction

Barrhaven Conservancy West Development is located in Barrhaven, Ontario, north of the Jock River, east of Highway 416 and west of the Foster Drain. The proposed development is approximately **34.15 ha** that will primarily comprise of single and townhouse residential lots. The following outlines the preliminary hydraulic grade line (HGL) assessment for the site, to ensure that the proposed minor system within the development is adequately sized to safely convey flows to the Jock River under various conditions. As such the following memo outlines the approach taken in assessing the development's HGL and summarises the findings of this analysis.

Analysis Approach

Preliminary hydraulic grade line calculations for the proposed Barrhaven Conservancy West development were completed using PCSWMM modelling software. Pipe data, storm sewer layout and Rational Method flows in the storm sewer are as provided by DSEL. The Rational Method flows were calculated based on the 2-, 5- or 10-year level of service requirements, and the 100-year flows in the hydraulic grade line calculations were estimated as 14% greater than the Rational Method flows, to account for the additional flows captured by catchbasin grates, lead pipes and/or inlet control devices under the higher surface water depths of the 100-year storm.

The 14% increase in flows for the 100-year event is based on the assumption that the head on a lead pipe/ICD will increase by 35 cm (maximum allowable major system ponding depth) during the 100-Year event. Taking a typical 250 mm lead pipe and assuming that the head on the pipe is just below the top of the grate (assumed at 1.38 m) results in a peak flow of 209 L/s, then assuming that the head is increased by 35 cm during the 100-Year (head of 1.730 m) the flow through the lead pipe would increase to 234.5 L/s, which results in a 12% increase in peak flows. It is important to note that a 12% increase is observed when the same calculations are applied to the various lead pipe and ICD sizes. An additional 2% is added as a safety factor to allow some flexibility in the design, as it is likely that not all lead pipes will have a head of 1.38 m (just below the top of MH) for the level of service specified.

The proposed storm sewer infrastructure data was extracted from DSEL's detailed drawings and incorporated into a PCSWMM model, and flows derived by DSEL's rational method calculations were then applied to each Maintenance Hole (MH) in the model as steady flows (using the baseflow option). Exit losses were applied to all storm sewer pipes in the system based on the angle of the downstream connection.

As with all other works completed for the Barrhaven Conservancy development phases, the preliminary HGL analysis was completed under two conditions:

- 100-year rainfall event on the development and a 5-year spring water level on the Jock River
- Level of service (2/5/10-year) rainfall event on the development and a 100-year spring water level on the Jock River

Note that the water level along the Jock River through the length of this development varies, and as such the nearest corresponding upstream water surface elevation calculated by RVCA's HEC-RAS floodplain mapping model of the Jock River was applied at each of the respective storm sewer outlets. Also, note that assuming a 5-year spring water level on the Jock River for a 100-year rainfall event on the development is an inherently conservative assumption, as the critical storm for the proposed development is a summer (intense rainfall) event while the critical storm for the Jock River is a spring (snowmelt + rainfall) event. A preliminary Single Station Flood Frequency analysis was completed by JFSA using only summer flows (from May 15 to October 31) based on historical flow data recorded at the Moodie Drive Water Survey Canada gauge. This analysis found that the 100-year summer flow on the Jock River is around **99 m³/s**, while the 5-year spring flow is around **123 m³/s**, therefore the downstream boundary condition applied is conservative.

Within the proposed development, Oil and Grit Separators (OGS) units in conjunction with LID measures will be implemented to ensure the site meets quality control requirements. Preliminary OGS units and associated by-pass weir elevations have also been included in the model, based on similar drainage areas and imperviousness seen in Barrhaven Conservancy Phase 2. **Table 1** below outlines the assumed OGS sizes and configurations based on similar drainage areas and imperviousness found in Barrhaven Conservancy Phase 2. Note that the trunk sewers for this development phase have been numbered 1-4 progressing from east to west (Foster Creek to Highway 416).

Trunk System	Area (ha)	Runoff Coefficient	CDS Model	CDS Inlet/Outlet Pipe (mm)	Weir Height (mm)
Trunk 1	8.92	0.7	PMSU 5640 -10	750	660
Trunk 2	10.75	0.69	PMSU 5640 -10	750	660
Trunk 3	6.3	0.64	PMSU 4045 -8	675	650
Trunk 4	8.18	0.67	PMSU 5640 -10	750	660
Total	**34.15**	**0.68**			

Results

The maximum HGL obtained at each MH has been extracted from the level of service (2/5/10-year) event / 100-year Jock River water level scenario and the 100-year event / 5-year Jock River water level scenario, with the results from this analysis provided in **Tables 1 & 2**, respectively. As all proposed units within this development will have sump pumps, the simulated HGL was compared against the top of MH elevation to ensure that all storm sewers infrastructure is sufficiently sized and is not surcharging to the major system during the assessed events.

From this analysis, it was found that the critical scenario for HGL within the development was the level of service development event and 100-year water level on the Jock River scenario. Based on this scenario, no MHs will have an HGL elevation above the top of MH (minimum freeboard of **0.50 m** at **MH-109**), with an average freeboard of **0.75 m** from the top of MH throughout the proposed development.

For the 100-year event and 5-year water level on the Jock River, no MHs will have HGL elevations above the top of MH (minimum freeboard of **1.14 m** at **MH-101**), with an average freeboard of **1.37 m** from the top of MH throughout the proposed development. As such it can be concluded that the proposed storm sewer infrastructure is sufficiently sized, to safely convey minor system flows from the development under various extreme conditions.

Conclusion

A preliminary HGL analysis for the West Phase of the Barrhaven Conservancy Development was completed using PCSWMM based on storm sewer and flow details provided by DSEL. From this analysis, it was found that the proposed storm sewer infrastructure is sufficiently sized to convey all minor system flows to the Jock River and will not result in any MHs surcharging to the street under extreme events such as 100-year rainfall events on the development and a 5-year spring water level on the Jock River and a level of service (2/5/10 Year) rainfall event on the development and a 100-year spring water level on the Jock River, with the former being the more critical scenario for the HGL within the development.

Yours truly,
J.F Sabourin and Associates Inc.

Jonathon Burnett, P.Eng
Water Resources Engineer

cc: J.F Sabourin, M.Eng, P.Eng
Director of Water Resources Projects

Figures
Figure 1: PCSWMM Model Overview

Tables
Table 1: HGL Result Tables - Level of service (2/5/10-year) BCDC Development & 100-Year Jock River
Table 2: HGL Result Tables - 100-Year BCDC Development & 5-Year Jock River

Attachments
Attachment A: DSEL Rational Method Calculations

Modelling Files – Provided Electronically
PCSWMM BCDC-West_HGL_v02.0-5YrDev-100YrJock.inp
BCDC-West_HGL_v02.0-100YrDev-5YrJock.inp

Legend

- Junctions
- Conduits
- Outfalls
- Development Plan

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DSEL
david schaeffer engineering ltd

SCALE : 1:3,500

0 50 100 150 200 m

PROJECT :
Barrhaven Conservancy Development
Phase 3

TITLE :
Figure 1:
Preliminary HGL Analysis
Model Overview

PROJECT	1474 -17
DRAWN:	JB
DATE:	DEC 2022

Table 1: BCDC West - Preliminary HGL Analysis
Level of Service (2/5/10 Year) BCDC Development & 100-Year Jock River

MH-ID	Invert Elevation	Top of MH (m)	Max HGL (m)	Freeboard (m)
MH-10	90.38	93.43	92.41	1.02
MH-100	90.28	93.06	92.39	0.67
MH-101	90.13	92.89	92.35	0.54
MH-102	89.99	92.85	92.30	0.55
MH-103	89.92	92.79	92.28	0.52
MH-106	89.79	92.71	92.20	0.51
MH-108	89.70	92.67	92.14	0.53
MH-109	89.61	92.59	92.09	0.50
MH-11	90.22	93.24	92.31	0.93
MH-110	89.57	92.58	92.07	0.51
MH-12	90.11	93.13	92.25	0.88
MH-121	89.36	92.52	92.00	0.52
MH-13	90.02	93.11	92.23	0.89
MH-14	89.95	93.06	92.21	0.85
MH-15	89.90	93.04	92.20	0.84
MH-17	89.82	93.02	92.17	0.86
MH-28	89.60	92.93	92.13	0.80
MH-36	91.13	93.39	92.30	1.09
MH-37	90.37	93.37	92.30	1.07
MH-38	90.08	93.18	92.28	0.90
MH-39	89.94	93.08	92.21	0.88
MH-40	89.84	93.02	92.17	0.85
MH-41	89.76	92.94	92.14	0.80
MH-42	89.72	92.93	92.13	0.80
MH-46	89.58	92.77	92.06	0.71
MH-570	90.83	93.64	92.48	1.16
MH-60	91.24	93.73	92.76	0.97
MH-61	91.08	93.72	92.77	0.95
MH-62	90.88	93.53	92.75	0.78
MH-65	90.76	93.47	92.69	0.78
MH-67	90.63	93.40	92.66	0.74
MH-69	90.51	93.33	92.63	0.70
MH-70	90.29	93.24	92.55	0.69
MH-72	90.07	93.15	92.46	0.69
MH-76	89.97	93.04	92.43	0.61
MH-81	89.84	92.95	92.36	0.59
MH-82	89.72	92.89	92.28	0.61
MH-83	89.61	92.79	92.22	0.57
MH-84	89.57	92.77	92.20	0.57
MH-9	90.47	93.52	92.44	1.08
MH-90	89.49	92.75	92.14	0.61
MH-97	90.75	93.17	92.49	0.68
MH-98	90.66	93.11	92.48	0.63
MH-99	90.42	93.01	92.42	0.59
			Min	0.50
			Max	1.16
			Average	0.75

Note: Analysis assumes 100 year spring water level on the Jock River

Model Name:BCDC-West_HGL_v02.0-5YrDev-100YrJock.inp

Table 2: BCDC West - Preliminary HGL Analysis
100-Year BCDC Development & 5-Year Jock River

MH-ID	Invert Elevation	Top of MH (m)	Max HGL (m)	Freeboard (m)
MH-10	90.38	93.43	91.81	1.62
MH-100	90.28	93.06	91.81	1.25
MH-101	90.13	92.89	91.75	1.14
MH-102	89.99	92.85	91.70	1.15
MH-103	89.92	92.79	91.66	1.14
MH-106	89.79	92.71	91.56	1.15
MH-108	89.70	92.67	91.48	1.19
MH-109	89.61	92.59	91.42	1.17
MH-11	90.22	93.24	91.68	1.56
MH-110	89.57	92.58	91.39	1.19
MH-12	90.11	93.13	91.60	1.54
MH-121	89.36	92.52	91.30	1.22
MH-13	90.02	93.11	91.57	1.55
MH-14	89.95	93.06	91.54	1.52
MH-15	89.90	93.04	91.53	1.51
MH-17	89.82	93.02	91.49	1.54
MH-28	89.60	92.93	91.44	1.49
MH-36	91.13	93.39	91.66	1.73
MH-37	90.37	93.37	91.66	1.71
MH-38	90.08	93.18	91.64	1.54
MH-39	89.94	93.08	91.54	1.55
MH-40	89.84	93.02	91.49	1.53
MH-41	89.76	92.94	91.46	1.48
MH-42	89.72	92.93	91.44	1.49
MH-46	89.58	92.77	91.36	1.41
MH-570	90.83	93.64	91.93	1.71
MH-60	91.24	93.73	92.27	1.46
MH-61	91.08	93.72	92.27	1.46
MH-62	90.88	93.53	92.24	1.29
MH-65	90.76	93.47	92.17	1.31
MH-67	90.63	93.40	92.13	1.27
MH-69	90.51	93.33	92.10	1.23
MH-70	90.29	93.24	91.98	1.26
MH-72	90.07	93.15	91.87	1.28
MH-76	89.97	93.04	91.84	1.20
MH-81	89.84	92.95	91.74	1.21
MH-82	89.72	92.89	91.64	1.25
MH-83	89.61	92.79	91.56	1.23
MH-84	89.57	92.77	91.54	1.23
MH-9	90.47	93.52	91.85	1.67
MH-90	89.49	92.75	91.46	1.29
MH-97	90.75	93.17	91.94	1.23
MH-98	90.66	93.11	91.92	1.19
MH-99	90.42	93.01	91.85	1.16
			Min	1.14
			Max	1.73
			Average	1.37

Note: Analysis assumes 5 year spring water level on the Jock River

Model Name:BCDC-West_HGL_v02.0-100YrDev-5YrJock

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Attachment A

DSEL Rational Method Calculations

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)														FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
STREET '14'																																
			0.14	0.80	0.31	0.31			0.00	0.00			0.00	0.00			0.00	0.00														
	63	64	0.20	0.68	0.38	0.69			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	53	375	375	PVC	0.30	67.0	96.0323	0.8695	1.2843	0.551
			0.14	0.80	0.31	1.00			0.00	0.00			0.00	0.00			0.00	0.00														
	64	65	0.23	0.68	0.43	1.44			0.00	0.00			0.00	0.00			0.00	0.00	11.28	72.20	97.87	114.69	167.61	104	750	750	CONC	0.11	74.5	369.2322	0.8358	1.4857	0.281
To STREET '11', Pipe 65 - 67						1.44				0.00				0.00				0.00	12.77													
STREET '15'																																
Contribution From STREET '9', Pipe 470 - 60						0.47				0.00				0.00				0.00	11.24													
Contribution From STREET '9', Pipe 59 - 60						0.19				0.00				0.00				0.00	10.59													
	60	61	0.01	0.68	0.02	0.68			0.00	0.00			0.00	0.00			0.00	0.00	11.24	72.36	98.08	114.95	167.99	49	600	600	CONC	0.15	10.5	237.8056	0.8411	0.2081	0.207
	61	62	0.50	0.80	1.11	1.79			0.00	0.00			0.00	0.00			0.00	0.00	11.45	71.67	97.13	113.83	166.35	128	750	750	CONC	0.11	124.5	369.2322	0.8358	2.4827	0.348
To STREET '16', Pipe 62 - 65						1.79				0.00				0.00				0.00	13.93													
STREET '11'																																
Contribution From STREET '16', Pipe 62 - 65						3.70				0.49				0.00				0.00	14.81													
Contribution From STREET '14', Pipe 64 - 65						1.44				0.00				0.00				0.00	12.77													
	65	67	0.18	0.68	0.34	5.47			0.00	0.49			0.00	0.00			0.00	0.00	14.81	62.23	84.19	98.60	143.99	382	825	825	CONC	0.11	44.0	476.0801	0.8906	0.8234	0.802
Contribution From STREET '18', Pipe 660 - 67						0.76				0.00				0.00				0.00	11.78													
	67	69	0.16	0.68	0.30	6.53			0.00	0.49			0.00	0.00			0.00	0.00	15.63	60.32	81.58	95.53	139.48	434	900	900	CONC	0.11	44.0	600.4123	0.9438	0.7770	0.723
Contribution From STREET '19', Pipe 680 - 69						0.79				0.00				0.00				0.00	11.78													
	69	70	0.20	0.68	0.38	7.70			0.00	0.49			0.00	0.00			0.00	0.00	16.41	58.64	79.27	92.82	135.51	490	900	900	CONC	0.11	63.0	600.4123	0.9438	1.1125	0.817
To STREET '20', Pipe 70 - 72						7.70				0.49				0.00				0.00	17.52													
STREET '10'																																
Contribution From STREET '9', Pipe 47 - 49						0.34				0.00				0.00				0.00	11.33													
Contribution From STREET '9', Pipe 48 - 49						0.13				0.00				0.00				0.00	10.49													
	49	50	0.01	0.68	0.02	0.49			0.00	0.00			0.00	0.00			0.00	0.00	11.33	72.05	97.65	114.44	167.25	35	600	600	CONC	0.15	12.0	237.8056	0.8411	0.2378	0.149
	50	51	0.72	0.67	1.34	1.83			0.00	0.00			0.00	0.00			0.00	0.00	11.57	71.27	96.58	113.18	165.39	131	750	750	CONC	0.11	127.0	369.2322	0.8358	2.5326	0.354
	51	52	0.42	0.67	0.78	2.61			0.00	0.00			0.00	0.00			0.00	0.00	14.10	63.97	86.58	101.41	148.11	167	750	750	CONC	0.11	74.5	369.2322	0.8358	1.4857	0.453
	52	53	0.39	0.67	0.73	3.34			0.00	0.00			0.00	0.00			0.00	0.00	15.59	60.42	81.71	95.68	139.70	202	750	750	CONC	0.11	66.5	369.2322	0.8358	1.3261	0.547
	53	54	0.14	0.67	0.26	3.60			0.00	0.00			0.00	0.00			0.00	0.00	16.91	57.59	77.85	91.14	133.04	207	750	750	CONC	0.11	14.5	369.2322	0.8358	0.2892	0.562
To STREET '20', Pipe 54 - 70						3.60				0.00				0.00				0.00	17.20													
STREET '17'																																
Contribution From STREET '20', Pipe 70 - 72						12.35				0.49				0.00				0.00	19.16													
Contribution From STREET '20', Pipe 71 - 72						0.95				0.00				0.00				0.00	11.45													
	72	76	0.10	0.67	0.19	13.48			0.00	0.49			0.00	0.00			0.00	0.00	19.16	53.42	72.14	84.43	123.21	756	1200	1200	CONC	0.11	68.5	1293.0625	1.1433	0.9986	0.584
To STREET '2', Pipe 76 - 81						13.48				0.49				0.00				0.00	20.16													
STREET '8'																																
	85	86	0.20	0.67	0.37	0.37			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	29	450	450	CONC	0.20	49.0	127.5033	0.8017	1.0187	0.224
	86	87	0.12	0.67	0.22	0.60			0.00	0.00			0.00	0.00			0.00	0.00	11.02	73.10	99.10	116.15	169.75	44	450	450	CONC	0.20	13.0	127.5033	0.8017	0.2703	0.342
	87	88	0.36	0.67	0.67	1.27			0.00	0.00			0.00	0.00			0.00	0.00	11.29	72.19	97.84	114.66	167.58	91	600	600	CONC	0.15	61.5	237.8056	0.8411	1.2187	0.384
	88	89	0.14	0.67	0.26	1.53			0.00	0.00			0.00	0.00			0.00	0.00	12.51	68.35	92.58	108.47	158.48	104	600	600	CONC	0.15	13.5	237.8056	0.8411	0.2675	0.439
	89	90	0.10	0.67	0.19	1.71			0.00	0.00			0.00	0.00			0.00	0.00	12.78	67.57	91.51	107.21	156.63	116	750	750	CONC	0.11	30.5	369.2322	0.8358	0.6082	0.314
To Centerline 1003, Pipe 90 - OGS W3						1.71				0.00				0.00				0.00	13.38													
			0.03	0.68	0.06	0.06			0.00	0.00			0.00	0.00			0.00	0.00														
	80	81	0.03	0.80	0.07	0.12			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	9	300	300	PVC	0.35	24.0	57.2089	0.8093	0.4942	0.166
Contribution From STREET '2', Pipe 76 - 81						13.48				2.76				0.00				0.00	21.04													
Contribution From STREET '2', Pipe 79 - 81						0.20				0.64				0.00				0.00	11.68													
	81	82	0.18	0.67	0.34	14.14			0.00	3.41			0.00	0.00			0.00	0.00	21.04	50.42	68.06	79.63	116.17	945	1200	1200	CONC	0.11	57.5	1293.0625	1.1433	0.8382	0.731
	82	83	0.35	0.67	0.65	14.79			0.00	3.41			0.00	0.00			0.00	0.00	21.87	49.20	66.39	77.67	113.30	954	1200	1200	CONC	0.11	70.0	1293.0625	1.1433	1.0204	0.738
	83	84	0.12	0.67	0.22	15.02			0.00	3.41			0.00	0.00			0.00	0.00	22.89	47.80	64.48	75.43	110.01	937	1200	1200	CONC	0.11	12.5	1293.0625	1.1433	0.1822	0.725
	84	90	0.05	0.67	0.09	15.11			0.00	3.41			0.00	0.00			0.00	0.00	23.08	47.56	64.15	75.04	109.44	937	1200	1200	CONC	0.11	14.5	1293.0625	1.1433	0.2114	0.725
To Centerline 1003, Pipe 90 - OGS W3						15.11				3.41				0.00				0.00	23.29													

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West	
Checked: W.L./V.W.	LOCATION: **City of Ottawa**	
Dwg. Reference:	File Ref:	Date: 09 Dec 2022 / Sheet No. SHEET 1 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

LOCATION			AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
Centerline 1003																																	
Contribution From STREET '8', Pipe 84 - 90						15.11				3.41				0.00				0.00	23.29														
Contribution From STREET '8', Pipe 89 - 90						1.71				0.00				0.00				0.00	13.38														
	90	OGS W3	0.02	0.67	0.04	16.86			0.00	3.41			0.00	0.00			0.00	0.00	23.29	47.28	63.77	74.60	108.80	1014	1200	1200	CONC	0.11	27.0	1293.0625	1.1433	0.3936	0.785
STREET '21'																																	
Contribution From STREET '9', Pipe 19 - 20						0.56				0.00				0.00				0.00	11.07														
	20	21	0.65	0.67	1.21	1.77			0.00	0.00			0.00	0.00			0.00	0.00	11.07	72.92	98.86	115.86	169.33	129	525	525	CONC	0.20	110.0	192.3297	0.8885	2.0635	0.671
	21	22	0.66	0.67	1.23	3.00			0.00	0.00			0.00	0.00			0.00	0.00	13.13	66.55	90.11	105.56	154.21	200	600	600	CONC	0.15	113.0	237.8056	0.8411	2.2392	0.839
	22	23	0.62	0.67	1.15	4.15			0.00	0.00			0.00	0.00			0.00	0.00	15.37	60.90	82.37	96.46	140.84	253	675	675	CONC	0.15	107.0	325.5584	0.9098	1.9602	0.777
	23	24	0.06	0.67	0.11	4.27			0.00	0.00			0.00	0.00			0.00	0.00	17.33	56.76	76.70	89.79	131.07	242	675	675	CONC	0.15	10.5	325.5584	0.9098	0.1924	0.744
	24	25	0.19	0.67	0.35	4.62			0.00	0.00			0.00	0.00			0.00	0.00	17.53	56.38	76.19	89.19	130.19	260	675	675	CONC	0.15	33.5	325.5584	0.9098	0.6137	0.800
	25	26	0.16	0.67	0.30	4.92			0.00	0.00			0.00	0.00			0.00	0.00	18.14	55.23	74.62	87.34	127.47	272	675	675	CONC	0.15	28.0	325.5584	0.9098	0.5130	0.834
	26	27	0.24	0.67	0.45	5.36			0.00	0.00			0.00	0.00			0.00	0.00	18.65	54.30	73.35	85.86	125.30	291	675	675	CONC	0.20	42.5	375.9224	1.0505	0.6743	0.775
	27	28	0.15	0.67	0.28	5.64			0.00	0.00			0.00	0.00			0.00	0.00	19.33	53.14	71.76	83.99	122.56	300	675	675	CONC	0.20	31.0	375.9224	1.0505	0.4918	0.798
To STREET '25', Pipe 28 - OGS W1						5.64				0.00				0.00				0.00	19.82														
STREET '22'																																	
Contribution From STREET '9', Pipe 1 - 2						0.50				0.00				0.00				0.00	10.55														
Contribution From STREET '9', Pipe 700 - 2						1.12				0.00				0.00				0.00	12.20														
	2	3	0.03	0.67	0.06	1.68			0.00	0.00			0.00	0.00			0.00	0.00	12.20	69.27	93.83	109.94	160.65	116	450	450	CONC	0.25	14.5	142.5531	0.8963	0.2696	0.815
	3	4	0.17	0.67	0.32	1.99			0.00	0.00			0.00	0.00			0.00	0.00	12.47	68.45	92.72	108.63	158.72	136	525	525	CONC	0.20	45.0	192.3297	0.8885	0.8442	0.709
	4	5	0.10	0.67	0.19	2.18			0.00	0.00			0.00	0.00			0.00	0.00	13.32	66.05	89.42	104.75	153.02	144	600	600	CONC	0.15	10.5	237.8056	0.8411	0.2081	0.605
	5	6	0.55	0.67	1.02	3.20			0.00	0.00			0.00	0.00			0.00	0.00	13.53	65.48	88.64	103.84	151.68	210	750	750	CONC	0.11	90.0	369.2322	0.8358	1.7948	0.568
	6	9	0.48	0.67	0.89	4.10			0.00	0.00			0.00	0.00			0.00	0.00	15.32	61.02	82.54	96.65	141.13	250	750	750	CONC	0.11	89.5	369.2322	0.8358	1.7848	0.677
To STREET '24', Pipe 9 - 10						4.10				0.00				0.00				0.00	17.11														
STREET '9'																																	
	1	2	0.27	0.67	0.50	0.50			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	39	375	375	PVC	0.30	28.5	96.0323	0.8695	0.5463	0.402
To STREET '22', Pipe 2 - 3						0.50				0.00				0.00				0.00	10.55														
	47	49	0.18	0.68	0.34	0.34			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	26	450	450	CONC	0.20	64.0	127.5033	0.8017	1.3305	0.205
To STREET '10', Pipe 49 - 50						0.34				0.00				0.00				0.00	11.33														
	47	60	0.25	0.68	0.47	0.47			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	36	450	450	CONC	0.20	59.5	127.5033	0.8017	1.2370	0.285
To STREET '15', Pipe 60 - 61						0.47				0.00				0.00				0.00	11.24														
	48	49	0.07	0.68	0.13	0.13			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	10	300	300	PVC	0.35	24.0	57.2089	0.8093	0.4942	0.178
To STREET '10', Pipe 49 - 50						0.13				0.00				0.00				0.00	10.49														
	59	60	0.10	0.68	0.19	0.19			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	15	450	450	CONC	0.20	28.5	127.5033	0.8017	0.5925	0.114
To STREET '15', Pipe 60 - 61						0.19				0.00				0.00				0.00	10.59														
	7	8	0.43	0.67	0.80	0.80			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	62	375	375	PVC	0.30	74.0	96.0323	0.8695	1.4185	0.641
To STREET '24', Pipe 8 - 9						0.80				0.00				0.00				0.00	11.42														
	7	2	0.60	0.67	1.12	1.12			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	86	450	450	CONC	0.20	106.0	127.5033	0.8017	2.2037	0.673
To STREET '22', Pipe 2 - 3						1.12				0.00				0.00				0.00	12.20														
	18	19	0.21	0.67	0.39	0.39			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	30	300	300	PVC	0.35	42.0	57.2089	0.8093	0.8649	0.525
	19	20	0.09	0.67	0.17	0.56			0.00	0.00			0.00	0.00			0.00	0.00	10.86	73.64	99.84	117.01	171.02	41	300	300	PVC	0.35	10.0	57.2089	0.8093	0.2059	0.719
To STREET '21', Pipe 20 - 21						0.56				0.00				0.00				0.00	11.07														
	59	55	0.05	0.68	0.09	0.09			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	7	300	300	PVC	0.35	13.5	57.2089	0.8093	0.2780	0.127
	55	56	0.02	0.68	0.04	0.13			0.00	0.00			0.00	0.00			0.00	0.00	10.28	75.75	102.75	120.44	176.06	10	375	375	PVC	0.30	13.0	96.0323	0.8695	0.2492	0.104

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

LICENSED PROFESSIONAL ENGINEER
W. LIU
100167932
22-12-09
PROVINCE OF ONTARIO

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West
Checked: W.L./V.W.	LOCATION: **City of Ottawa**
Dwg. Reference:	File Ref: / Date: 09 Dec 2022 / Sheet No. SHEET 2 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
			0.30	0.80	0.67	0.80			0.00	0.00			0.00	0.00			0.00	0.00															
	56	58			0.00	0.80	0.44	0.40	0.49	0.49			0.00	0.00			0.00	0.00	10.53	74.84	101.49	118.96	173.88	109	450	450	CONC	0.20	102.5	127.5033	0.8017	2.1309	0.859
To STREET '16', Pipe 58 - 62						0.80				0.49				0.00				0.00	12.66														
STREET '24'																																	
Contribution From STREET '9', Pipe 7 - 8						0.80				0.00				0.00				0.00	11.42														
	8	9	0.21	0.67	0.39	1.19			0.00	0.00			0.00	0.00			0.00	0.00	11.42	71.76	97.25	113.97	166.55	86	450	450	CONC	0.20	67.5	127.5033	0.8017	1.4033	0.671
Contribution From STREET '22', Pipe 6 - 9						4.10				0.00				0.00				0.00	17.11														
	9	10	0.24	0.67	0.45	5.74			0.00	0.00			0.00	0.00			0.00	0.00	17.11	57.21	77.32	90.52	132.13	328	825	825	CONC	0.11	62.5	476.0801	0.8906	1.1696	0.689
	10	11	0.72	0.67	1.34	7.08			0.00	0.00			0.00	0.00			0.00	0.00	18.27	54.98	74.28	86.95	126.89	389	825	825	CONC	0.11	122.0	476.0801	0.8906	2.2831	0.817
	11	12	0.48	0.67	0.89	7.97			0.00	0.00			0.00	0.00			0.00	0.00	20.56	51.15	69.05	80.80	117.88	408	825	825	CONC	0.11	80.0	476.0801	0.8906	1.4971	0.857
	12	13	0.10	0.67	0.19	8.16			0.00	0.00			0.00	0.00			0.00	0.00	22.05	48.94	66.04	77.27	112.70	399	825	825	CONC	0.11	13.5	476.0801	0.8906	0.2526	0.839
	13	14	0.15	0.67	0.28	8.44			0.00	0.00			0.00	0.00			0.00	0.00	22.31	48.59	65.56	76.70	111.88	410	900	900	CONC	0.11	32.0	600.4123	0.9438	0.5651	0.683
	14	15	0.07	0.67	0.13	8.57			0.00	0.00			0.00	0.00			0.00	0.00	22.87	47.83	64.52	75.48	110.08	410	900	900	CONC	0.11	17.0	600.4123	0.9438	0.3002	0.682
	15	17	0.02	0.67	0.04	8.61			0.00	0.00			0.00	0.00			0.00	0.00	23.17	47.43	63.98	74.84	109.15	408	900	900	CONC	0.11	10.0	600.4123	0.9438	0.1766	0.680
To STREET '25', Pipe 17 - 28						8.61				0.00				0.00				0.00	23.35														
STREET '26'																																	
	43	44	0.60	0.67	1.12	1.12			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	86	450	450	CONC	0.20	101.0	127.5033	0.8017	2.0997	0.673
	44	45	0.06	0.67	0.11	1.23			0.00	0.00			0.00	0.00			0.00	0.00	12.10	69.58	94.27	110.46	161.40	86	450	450	CONC	0.20	12.5	127.5033	0.8017	0.2599	0.671
To STREET '28', Pipe 45 - 46						1.23				0.00				0.00				0.00	12.36														
STREET '28'																																	
Contribution From STREET '26', Pipe 44 - 45						1.23				0.00				0.00				0.00	12.36														
	45	46			0.00	1.23			0.00	0.00			0.00	0.00			0.00	0.00	12.36	68.79	93.19	109.18	159.53	85	450	450	CONC	0.20	55.0	127.5033	0.8017	1.1434	0.663
To STREET '27', Pipe 46 - OGS W2						1.23				0.00				0.00				0.00	13.50														
STREET '23'																																	
	34	36	0.19	0.67	0.35	0.35			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	27	300	300	PVC	0.35	42.0	57.2089	0.8093	0.8649	0.475
To STREET '25', Pipe 36 - 37						0.35				0.00				0.00				0.00	10.86														
	35	36	0.20	0.67	0.37	0.37			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	29	300	300	PVC	0.35	34.0	57.2089	0.8093	0.7002	0.500
To STREET '25', Pipe 36 - 37						0.37				0.00				0.00				0.00	10.70														
	35	29	0.50	0.67	0.93	0.93			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	72	450	450	CONC	0.20	77.5	127.5033	0.8017	1.6112	0.561
	29	30	0.21	0.67	0.39	1.32			0.00	0.00			0.00	0.00			0.00	0.00	11.61	71.13	96.39	112.95	165.06	94	450	450	CONC	0.20	16.0	127.5033	0.8017	0.3326	0.738
	30	31	0.48	0.67	0.89	2.22			0.00	0.00			0.00	0.00			0.00	0.00	11.94	70.07	94.94	111.24	162.55	155	525	525	CONC	0.20	82.5	192.3297	0.8885	1.5476	0.808
	31	33	0.46	0.67	0.86	3.07			0.00	0.00			0.00	0.00			0.00	0.00	13.49	65.57	88.77	103.98	151.90	202	750	750	CONC	0.11	82.0	369.2322	0.8358	1.6352	0.546
To STREET '1', Pipe 33 - 38						3.07				0.00				0.00				0.00	15.13														
STREET '25'																																	
Contribution From STREET '23', Pipe 34 - 36						0.35				0.00				0.00				0.00	10.86														
Contribution From STREET '23', Pipe 35 - 36						0.37				0.00				0.00				0.00	10.70														
	36	37	0.02	0.67	0.04	0.76			0.00	0.00			0.00	0.00			0.00	0.00	10.86	73.64	99.84	117.01	171.02	56	375	375	PVC	0.30	13.0	96.0323	0.8695	0.2492	0.586
	37	38	0.48	0.67	0.89	1.66			0.00	0.00			0.00	0.00			0.00	0.00	11.11	72.78	98.65	115.62	168.98	121	750	750	CONC	0.11	127.5	369.2322	0.8358	2.5426	0.327
Contribution From STREET '1', Pipe 33 - 38						3.07				2.35				0.00				0.00	17.36														
	38	39	0.23	0.67	0.43	5.16			0.00	2.35			0.00	0.00			0.00	0.00	17.36	56.70	76.63	89.70	130.94	473	900	900	CONC	0.11	62.0	600.4123	0.9438	1.0949	0.787
To STREET '27', Pipe 39 - 40						5.16				2.35				0.00				0.00	18.46														
	16	17	0.23	0.67	0.43	0.43			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	33	300	300	PVC	0.35	43.0	57.2089	0.8093	0.8855	0.575
Contribution From STREET '24', Pipe 15 - 17						8.61				0.00				0.00				0.00	23.35														
	17	28	0.22	0.67	0.41	9.44			0.00	0.00			0.00	0.00			0.00	0.00	23.35	47.20	63.66	74.47	108.61	446	900	900	CONC	0.11	59.0	600.4123	0.9438	1.0419	0.742
Contribution From STREET '21', Pipe 27 - 28						5.64				0.00				0.00				0.00	19.82														
	28	OGS W1	0.08	0.67	0.15	15.24			0.00	0.00			0.00	0.00			0.00	0.00	24.39	45.89	61.89	72.39	105.55	699	1050	1050	CONC	0.11	27.5	905.6791	1.0459	0.4382	0.772

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

LICENSED PROFESSIONAL ENGINEER
W. LIU
100167932
22-12-09
PROVINCE OF ONTARIO

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West	
Checked: W.L./V.W.	LOCATION: **City of Ottawa**	
Dwg. Reference:	File Ref:	Date: 09 Dec 2022 / Sheet No. SHEET 3 OF 7

1226_stm.xlsx

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
STREET '27'																																	
Contribution From STREET '25', Pipe 38 - 39						5.16				2.35				0.00				0.00	18.46														
	39	40	0.22	0.67	0.41	5.57			0.00	2.35			0.00	0.00			0.00	0.00	18.46	54.65	73.83	86.41	126.11	478	975	975	CONC	0.11	64.5	743.2733	0.9955	1.0798	0.643
	40	41	0.20	0.67	0.37	5.94			0.00	2.35			0.00	0.00			0.00	0.00	19.54	52.79	71.28	83.42	121.73	481	975	975	CONC	0.11	49.5	743.2733	0.9955	0.8287	0.647
	41	42	0.14	0.67	0.26	6.20			0.00	2.35			0.00	0.00			0.00	0.00	20.37	51.45	69.46	81.28	118.58	482	975	975	CONC	0.11	13.0	743.2733	0.9955	0.2176	0.649
	42	46	0.63	0.67	1.17	7.38			0.00	2.35			0.00	0.00			0.00	0.00	20.58	51.11	68.99	80.73	117.79	539	975	975	CONC	0.11	107.5	743.2733	0.9955	1.7997	0.725
Contribution From STREET '28', Pipe 45 - 46						1.23				0.00				0.00				0.00	13.50														
			0.01	0.67	0.02	8.62			0.00	2.35			0.00	0.00			0.00	0.00															
	46	OGS W2	0.11	0.67	0.20	8.83			0.00	2.35			0.00	0.00			0.00	0.00	22.38	48.49	65.42	76.53	111.63	582	975	975	CONC	0.11	7.5	743.2733	0.9955	0.1256	0.783
STREET '7'																																	
Contribution From STREET '1', Pipe 115 - 117						0.00				0.38				0.00				0.00	10.70														
Contribution From STREET '1', Pipe 116 - 117						0.00				0.23				0.00				0.00	10.35														
			0.15	0.80	0.33	0.33			0.00	0.60			0.00	0.00			0.00	0.00															
	117	118	0.21	0.68	0.40	0.73			0.00	0.60			0.00	0.00			0.00	0.00	10.70	74.21	100.62	117.93	172.37	115	750	750	CONC	0.11	78.5	369.2322	0.8358	1.5654	0.312
			0.15	0.80	0.33	1.06			0.00	0.60			0.00	0.00			0.00	0.00															
	118	120	0.22	0.68	0.42	1.48			0.00	0.60			0.00	0.00			0.00	0.00	12.27	69.07	93.56	109.62	160.18	159	750	750	CONC	0.11	84.5	369.2322	0.8358	1.6851	0.430
To STREET '29', Pipe 120 - 121						1.48				0.60				0.00				0.00	13.95														
STREET '6'																																	
Contribution From STREET '1', Pipe 111 - 112						0.00				0.36				0.00				0.00	10.73														
	112	113	0.31	0.80	0.69	0.69			0.00	0.36			0.00	0.00			0.00	0.00	10.73	74.10	100.47	117.76	172.12	87	750	750	CONC	0.11	78.0	369.2322	0.8358	1.5555	0.236
	113	114	0.29	0.80	0.64	1.33			0.00	0.36			0.00	0.00			0.00	0.00	12.29	69.01	93.48	109.53	160.03	126	750	750	CONC	0.11	78.0	369.2322	0.8358	1.5555	0.340
To STREET '2', Pipe 114 - 120						1.33				0.36				0.00				0.00	13.84														
STREET '4'																																	
	78	79	0.09	0.80	0.20	0.20			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	15	300	300	PVC	0.35	33.0	57.2089	0.8093	0.6796	0.269
To STREET '2', Pipe 79 - 81						0.20				0.00				0.00				0.00	10.68														
	78	103	0.43	0.80	0.96	0.96			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	73	750	750	CONC	0.11	107.5	369.2322	0.8358	2.1437	0.199
To STREET '5', Pipe 103 - 106						0.96				0.00				0.00				0.00	12.14														
STREET '3'																																	
			0.23	0.80	0.51	0.51			0.00	0.00			0.00	0.00			0.00	0.00															
	80	102	0.31	0.68	0.59	1.10			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	84	450	450	CONC	0.20	115.5	127.5033	0.8017	2.4012	0.661
To STREET '5', Pipe 102 - 103						1.10				0.00				0.00				0.00	12.40														
STREET '1'																																	
	111	112			0.00	0.00	0.19	0.68	0.36	0.36			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	37	600	600	CONC	0.15	37.0	237.8056	0.8411	0.7332	0.157
To STREET '6', Pipe 112 - 113						0.00				0.36				0.00				0.00	10.73														
	115	117			0.00	0.00	0.20	0.68	0.38	0.38			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	39	600	600	CONC	0.15	35.5	237.8056	0.8411	0.7035	0.166
To STREET '7', Pipe 117 - 118						0.00				0.38				0.00				0.00	10.70														
	116	117			0.00	0.00	0.12	0.68	0.23	0.23			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	24	600	600	CONC	0.15	17.5	237.8056	0.8411	0.3468	0.099
To STREET '7', Pipe 117 - 118						0.00				0.23				0.00				0.00	10.35														
	75	76			0.00	0.00	0.09	0.68	0.17	0.17			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	18	300	300	PVC	0.35	23.5	57.2089	0.8093	0.4839	0.310
To STREET '2', Pipe 76 - 81						0.00				0.17				0.00				0.00	10.48														
	75	101			0.00	0.00	0.77	0.68	1.46	1.46			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	152	525	525	CONC	0.20	115.5	192.3297	0.8885	2.1667	0.789
To STREET '5', Pipe 101 - 102						0.00				1.46				0.00				0.00	12.17														
	73	74			0.00	0.00	0.54	0.67	1.01	1.01			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	105	450	450	CONC	0.25	73.5	142.5531	0.8963	1.3667	0.735
	74	76			0.00	0.00	0.47	0.67	0.88	1.88			0.00	0.00			0.00	0.00	11.37	71.93	97.49	114.25	166.96	183	525	525	CONC	0.25	73.5	215.0311	0.9933	1.2332	0.853
To STREET '2', Pipe 76 - 81						0.00				1.88				0.00				0.00	12.60														

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West	
Checked: W.L./V.W.	LOCATION: **City of Ottawa**	
Dwg. Reference:	File Ref:	Date: 09 Dec 2022
		Sheet No. SHEET 4 OF 7

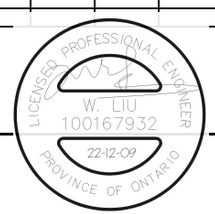
STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
	32	33			0.00	0.00	0.30	0.67	0.56	0.56			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	58	300	300	PVC	0.50	32.0	68.3778	0.9673	0.5513	0.851
Contribution From STREET '23', Pipe 31 - 33						3.07				0.00				0.00				0.00	15.13														
					0.00	3.07	0.52	0.67	0.97	1.53			0.00	0.00			0.00	0.00															
	33	38			0.00	3.07	0.74	0.40	0.82	2.35			0.00	0.00			0.00	0.00	15.13	61.47	83.15	97.37	142.19	384	825	825	CONC	0.11	119.5	476.0801	0.8906	2.2363	0.807
To STREET '25', Pipe 38 - 39						3.07				2.35				0.00				0.00	17.36														
STREET '31'																																	
	91	93	0.52	0.67	0.97	0.97			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	74	375	375	PVC	0.30	70.0	96.0323	0.8695	1.3418	0.775
To STREET '16', Pipe 93 - 94						0.97				0.00				0.00				0.00	11.34														
STREET '16'																																	
	92	93	0.05	0.67	0.09	0.09			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	7	300	300	PVC	1.00	28.0	96.7008	1.3680	0.3411	0.074
Contribution From STREET '31', Pipe 91 - 93						0.97				0.00				0.00				0.00	11.34														
	93	94	0.04	0.67	0.07	1.14			0.00	0.00			0.00	0.00			0.00	0.00	11.34	72.01	97.60	114.38	167.16	82	450	450	CONC	0.20	30.5	127.5033	0.8017	0.6341	0.642
To STREET '13', Pipe 94 - 95						1.14				0.00				0.00				0.00	11.98														
			0.11	0.80	0.24	0.24			0.00	0.00			0.00	0.00			0.00	0.00															
	57	58	0.16	0.68	0.30	0.55			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	42	600	600	CONC	0.15	53.0	237.8056	0.8411	1.0503	0.177
Contribution From STREET '9', Pipe 56 - 58						0.80				0.49				0.00				0.00	12.66														
	58	62	0.14	0.80	0.31	1.66			0.00	0.49			0.00	0.00			0.00	0.00	12.66	67.91	91.98	107.76	157.43	158	600	600	CONC	0.15	49.5	237.8056	0.8411	0.9809	0.663
Contribution From STREET '15', Pipe 61 - 62						1.79				0.00				0.00				0.00	13.93														
	62	65	0.11	0.80	0.24	3.70			0.00	0.49			0.00	0.00			0.00	0.00	13.93	64.42	87.19	102.12	149.16	281	750	750	CONC	0.11	44.0	369.2322	0.8358	0.8774	0.760
To STREET '11', Pipe 65 - 67						3.70				0.49				0.00				0.00	14.81														
STREET '13'																																	
Contribution From STREET '16', Pipe 93 - 94						1.14				0.00				0.00				0.00	11.98														
	94	95	0.53	0.68	1.00	2.14			0.00	0.00			0.00	0.00			0.00	0.00	11.98	69.97	94.80	111.08	162.31	150	525	525	CONC	0.20	75.5	192.3297	0.8885	1.4163	0.778
	95	96	0.41	0.68	0.78	2.91			0.00	0.00			0.00	0.00			0.00	0.00	13.39	65.84	89.14	104.42	152.53	192	600	600	CONC	0.15	66.0	237.8056	0.8411	1.3079	0.807
To STREET '20', Pipe 96 - 100						2.91				0.00				0.00				0.00	14.70														
STREET '19'																																	
			0.12	0.80	0.27	0.27			0.00	0.00			0.00	0.00			0.00	0.00															
	68	98	0.16	0.68	0.30	0.57			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	44	450	450	CONC	0.20	60.5	127.5033	0.8017	1.2578	0.343
To STREET '12', Pipe 98 - 99						0.57				0.00				0.00				0.00	11.26														
			0.17	0.80	0.38	0.38			0.00	0.00			0.00	0.00			0.00	0.00															
	68	69	0.22	0.68	0.42	0.79			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	61	450	450	CONC	0.20	85.5	127.5033	0.8017	1.7775	0.478
To STREET '11', Pipe 69 - 70						0.79				0.00				0.00				0.00	11.78														
STREET '18'																																	
	66	97	0.24	0.80	0.53	0.53			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	41	450	450	CONC	0.20	60.5	127.5033	0.8017	1.2578	0.322
To STREET '12', Pipe 97 - 98						0.53				0.00				0.00				0.00	11.26														
	66	67	0.34	0.80	0.76	0.76			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	58	450	450	CONC	0.20	85.5	127.5033	0.8017	1.7775	0.455
To STREET '11', Pipe 67 - 69						0.76				0.00				0.00				0.00	11.78														
STREET '12'																																	
	57	97	0.17	0.68	0.32	0.32			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	25	600	600	CONC	0.15	44.5	237.8056	0.8411	0.8818	0.104
Contribution From STREET '18', Pipe 66 - 97						0.53				0.00				0.00				0.00	11.26														
	97	98	0.18	0.68	0.34	1.20			0.00	0.00			0.00	0.00			0.00	0.00	11.26	72.29	97.99	114.83	167.82	86	600	600	CONC	0.15	44.0	237.8056	0.8411	0.8719	0.363
Contribution From STREET '19', Pipe 68 - 98						0.57				0.00				0.00				0.00	11.26														
	98	99	0.23	0.68	0.43	2.20			0.00	0.00			0.00	0.00			0.00	0.00	12.13	69.49	94.15	110.31	161.18	153	600	600	CONC	0.15	62.5	237.8056	0.8411	1.2385	0.643
To STREET '20', Pipe 99 - 100						2.20				0.00				0.00				0.00	13.37														

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s



Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West	
Checked: W.L./V.W.	LOCATION: **City of Ottawa**	
Dwg. Reference:	File Ref:	Date: 09 Dec 2022 / Sheet No. SHEET 5 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA							
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
STREET '20'																																
	71	72	0.50	0.68	0.95	0.95			0.00	0.00			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	73	750	750	CONC	0.11	72.5	369.2322	0.8358	1.4458	0.197
To STREET '17', Pipe 72 - 76						0.95				0.00				0.00				0.00	11.45														
Contribution From STREET '12', Pipe 98 - 99						2.20				0.00				0.00				0.00	13.37														
	99	100	0.21	0.68	0.40	2.60			0.00	0.00			0.00	0.00			0.00	0.00	13.37	65.91	89.23	104.52	152.69	171	750	750	CONC	0.11	56.5	369.2322	0.8358	1.1267	0.463
To Centerline 1001, Pipe 100 - 101						2.60				0.00				0.00				0.00	14.49														
Contribution From STREET '13', Pipe 95 - 96						2.91				0.00				0.00				0.00	14.70														
	96	100	0.16	0.68	0.30	3.22			0.00	0.00			0.00	0.00			0.00	0.00	14.70	62.48	84.54	99.01	144.59	201	750	750	CONC	0.11	16.5	369.2322	0.8358	0.3290	0.544
To Centerline 1001, Pipe 100 - 101						3.22				0.00				0.00				0.00	15.03														
Contribution From STREET '10', Pipe 53 - 54						3.60				0.00				0.00				0.00	17.20														
	54	70	0.19	0.67	0.35	3.96			0.00	0.00			0.00	0.00			0.00	0.00	17.20	57.02	77.06	90.21	131.68	226	750	750	CONC	0.11	48.0	369.2322	0.8358	0.9572	0.611
Contribution From STREET '11', Pipe 69 - 70						7.70				0.49				0.00				0.00	17.52														
			0.18	0.68	0.34	12.00			0.00	0.49			0.00	0.00			0.00	0.00															
	70	72	0.19	0.67	0.35	12.35			0.00	0.49			0.00	0.00			0.00	0.00	18.16	55.19	74.57	87.28	127.39	718	1050	1050	CONC	0.11	63.0	905.6791	1.0459	1.0039	0.793
To STREET '17', Pipe 72 - 76						12.35				0.49				0.00				0.00	19.16														
Centerline 1001																																
Contribution From STREET '20', Pipe 96 - 100						3.22				0.00				0.00				0.00	15.03														
Contribution From STREET '20', Pipe 99 - 100						2.60				0.00				0.00				0.00	14.49														
	100	101	0.05	0.67	0.09	5.91			0.00	0.00			0.00	0.00			0.00	0.00	15.03	61.70	83.46	97.74	142.73	364	825	825	CONC	0.11	67.5	476.0801	0.8906	1.2632	0.765
To STREET '5', Pipe 101 - 102						5.91				0.00				0.00				0.00	16.29														
STREET '5'																																
Contribution From Centerline 1001, Pipe 100 - 101						5.91				0.00				0.00				0.00	16.29														
Contribution From STREET '1', Pipe 750 - 101						0.00				1.46				0.00				0.00	12.17														
	101	102	0.16	0.80	0.36	6.26			0.00	1.46			0.00	0.00			0.00	0.00	16.29	58.88	79.60	93.20	136.07	485	900	900	CONC	0.11	60.0	600.4123	0.9438	1.0596	0.807
Contribution From STREET '3', Pipe 800 - 102						1.10				0.00				0.00				0.00	12.40														
	102	103	0.14	0.80	0.31	7.67			0.00	1.46			0.00	0.00			0.00	0.00	17.35	56.72	76.66	89.74	130.99	547	975	975	CONC	0.11	49.0	743.2733	0.9955	0.8203	0.735
Contribution From STREET '4', Pipe 780 - 103						0.96				0.00				0.00				0.00	12.14														
	103	106	0.11	0.80	0.24	8.87			0.00	1.46			0.00	0.00			0.00	0.00	18.17	55.17	74.54	87.25	127.33	598	975	975	CONC	0.11	47.5	743.2733	0.9955	0.7952	0.804
To STREET '2', Pipe 106 - 108						8.87				1.46				0.00				0.00	18.97														
STREET '2'																																
	107	108			0.00	0.00	0.03	0.67	0.06	0.06			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	6	600	600	CONC	0.15	13.0	237.8056	0.8411	0.2576	0.024
To STREET '29', Pipe 108 - 109						0.00				0.06				0.00				0.00	10.26														
	119	120			0.00	0.00	0.12	0.67	0.22	0.22			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	23	600	600	CONC	0.15	14.5	237.8056	0.8411	0.2873	0.098
To STREET '29', Pipe 120 - 121						0.00				0.22				0.00				0.00	10.29														
	77	79			0.00	0.00	0.16	0.68	0.30	0.30			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	32	300	300	PVC	0.35	36.0	57.2089	0.8093	0.7413	0.551
Contribution From STREET '4', Pipe 78 - 79						0.20				0.00				0.00				0.00	10.68														
	79	81			0.00	0.20	0.18	0.68	0.34	0.64			0.00	0.00			0.00	0.00	10.74	74.07	100.43	117.71	172.05	79	375	375	PVC	0.30	49.0	96.0323	0.8695	0.9392	0.827
To STREET '8', Pipe 81 - 82						0.20				0.64				0.00				0.00	11.68														
Contribution From STREET '6', Pipe 113 - 114						1.33				0.36				0.00				0.00	13.84														
	114	120			0.00	1.33	0.09	0.67	0.17	0.53			0.00	0.00			0.00	0.00	13.84	64.64	87.49	102.48	149.68	132	750	750	CONC	0.11	44.5	369.2322	0.8358	0.8874	0.358
To STREET '29', Pipe 120 - 121						1.33				0.53				0.00				0.00	14.73														
	77	104			0.00	0.00	0.10	0.68	0.19	0.19			0.00	0.00			0.00	0.00	10.00	76.81	104.19	122.14	178.56	20	300	300	PVC	0.40	13.0	61.1589	0.8652	0.2504	0.322
	104	105			0.00	0.00	0.24	0.80	0.53	0.72			0.00	0.00			0.00	0.00	10.25	75.86	102.89	120.61	176.30	74	375	375	PVC	0.50	67.0	123.9771	1.1225	0.9948	0.600
	105	106			0.00	0.00	0.23	0.80	0.51	1.23			0.00	0.00			0.00	0.00	11.25	72.33	98.05	114.90	167.92	121	750	750	CONC	0.11	67.0	369.2322	0.8358	1.3361	0.328
Contribution From STREET '5', Pipe 103 - 106						8.87				1.46				0.00				0.00	18.97														
	106	108			0.00	8.87	0.05	0.67	0.09	2.78			0.00	0.00			0.00	0.00	18.97	53.75	72.60	84.97	124.00	679	1050	1050	CONC	0.11	25.0	905.6791	1.0459	0.3984	0.750
To STREET '29', Pipe 108 - 109						8.87				2.78				0.00				0.00	19.37														

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West	
Checked: W.L./V.W.	LOCATION: **City of Ottawa**	
Dwg. Reference:	File Ref:	Date: 09 Dec 2022
		Sheet No. SHEET 6 OF 7

STORM SEWER CALCULATION SHEET (RATIONAL METHOD)

Local Roads Return Frequency = 2 years
Collector Roads Return Frequency = 5 years
Manning 0.013 Arterial Roads Return Frequency = 10 years

	LOCATION		AREA (Ha)																FLOW						SEWER DATA								
			2 YEAR				5 YEAR				10 YEAR				100 YEAR				Time of	Intensity	Intensity	Intensity	Intensity	Peak Flow	DIA. (mm)	DIA. (mm)	TYPE	SLOPE	LENGTH	CAPACITY	VELOCITY	TIME OF	RATIO
			AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	AREA	R	Indiv.	Accum.	Conc.	2 Year	5 Year	10 Year	100 Year										
Location	From Node	To Node	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(Ha)		2.78 AC	2.78 AC	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	Q (l/s)	(actual)	(nominal)		(%)	(m)	(l/s)	(m/s)	LOW (min	Q/Q full
Contribution From STREET '17', Pipe 72 - 76						13.48				0.49				0.00				0.00	20.16														
Contribution From STREET '1', Pipe 74 - 76						0.00				1.88				0.00				0.00	12.60														
Contribution From STREET '1', Pipe 75 - 76						0.00				0.17				0.00				0.00	10.48														
	76	81			0.00	13.48	0.12	0.67	0.22	2.76			0.00	0.00			0.00	0.00	20.16	51.77	69.90	81.80	119.34	891	1200	1200	CONC	0.11	60.0	1293.0625	1.1433	0.8746	0.689
To STREET '8', Pipe 81 - 82						13.48				2.76				0.00				0.00	21.04														
STREET '29'																																	
Contribution From STREET '2', Pipe 106 - 108						8.87				2.78				0.00				0.00	19.37														
Contribution From STREET '2', Pipe 107 - 108						0.00				0.06				0.00				0.00	10.26														
			0.16	0.67	0.30	9.17			0.00	2.84			0.00	0.00			0.00	0.00															
	108	109			0.00	9.17	0.44	0.40	0.49	3.33			0.00	0.00			0.00	0.00	19.37	53.07	71.67	83.88	122.40	725	1050	1050	CONC	0.11	50.5	905.6791	1.0459	0.8047	0.801
	109	110	0.01	0.67	0.02	9.19			0.00	3.33			0.00	0.00			0.00	0.00	20.17	51.76	69.88	81.77	119.31	708	1050	1050	CONC	0.11	12.0	905.6791	1.0459	0.1912	0.782
	110	121	0.08	0.67	0.15	9.34			0.00	3.33			0.00	0.00			0.00	0.00	20.36	51.46	69.47	81.29	118.60	712	1050	1050	CONC	0.11	59.0	905.6791	1.0459	0.9401	0.786
Contribution From STREET '2', Pipe 114 - 120						1.33				0.53				0.00				0.00	14.73														
Contribution From STREET '7', Pipe 118 - 120						1.48				0.60				0.00				0.00	13.95														
Contribution From STREET '2', Pipe 119 - 120						0.00				0.22				0.00				0.00	10.29														
	120	121	0.28	0.67	0.52	3.34			0.00	1.36			0.00	0.00			0.00	0.00	14.73	62.41	84.43	98.88	144.41	323	825	825	CONC	0.11	73.5	476.0801	0.8906	1.3755	0.678
	121	OGS W4	0.03	0.67	0.06	12.73			0.00	4.68			0.00	0.00			0.00	0.00	21.30	50.03	67.52	79.00	115.24	953	1200	1200	CONC	0.11	5.5	1293.0625	1.1433	0.0802	0.737

Definitions:
Q = 2.78 AIR, where
Q = Peak Flow in Litres per second (L/s)
A = Areas in hectares (ha)
I = Rainfall Intensity (mm/h)
R = Runoff Coefficient

Notes:
1) Ottawa Rainfall-Intensity Curve
2) Min. Velocity = 0.80 m/s

LICENSED PROFESSIONAL ENGINEER
W. LIU
100167932
22-12-09
PROVINCE OF ONTARIO

Designed: M.S.	PROJECT: 1226 - Barrhaven Conservancy West	
Checked: W.L./V.W.	LOCATION: **City of Ottawa**	
Dwg. Reference:	File Ref:	Date: 09 Dec 2022 / Sheet No. SHEET 7 OF 7

1226_stm.xlsx

JFSA
WATER RESOURCES AND ENVIRONMENTAL CONSULTANTS

Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

Attachment B

PCSWMM Model Input Files

```
00001> [TITLE]
00002> ;;Project Title/Notes
00003>
00004> [OPTIONS]
00005> ;;Option             Value
00006> FLOW_UNITS           LPS
00007> INFILTRATION         HORTON
00008> FLOW_ROUTING         DYNWAVE
00009> LINK_OFFSETS         DEPTH
00010> MIN_SLOPE            0
00011> ALLOW_PONDING        NO
00012> SKIP_STEADY_STATE    NO
00013>
00014> START_DATE           12/05/2022
00015> START_TIME           00:00:00
00016> REPORT_START_DATE    12/05/2022
00017> REPORT_START_TIME    00:00:00
00018> END_DATE             12/06/2022
00019> END_TIME             00:00:00
00020> SWEEP_START          01/01
00021> SWEEP_END            12/31
00022> DRY_DAYS             0
00023> REPORT_STEP          00:01:00
00024> WET_STEP             00:05:00
00025> DRY_STEP             00:05:00
00026> ROUTING_STEP         5
00027> RULE_STEP            00:00:00
00028>
00029> INERTIAL_DAMPING     PARTIAL
00030> NORMAL_FLOW_LIMITED  BOTH
00031> FORCE_MAIN_EQUATION  H-W
00032> VARIABLE_STEP        0.75
00033> LENGTHENING_STEP     0
00034> MIN_SURFAREA         0
00035> MAX_TRIALS           8
00036> HEAD_TOLERANCE       0.0015
00037> SYS_FLOW_TOL         5
00038> LAT_FLOW_TOL         5
00039> MINIMUM_STEP         0.5
00040> THREADS              6
00041>
00042> [FILES]
00043> ;;Interfacing Files
00044> USE HOTSTART "C:\OneDrive\J.F. Sabourin and Associates Inc\JFSA-OTTAWA-SERVER - Documents\PROJ\1474(03)-21\202
00045>
00046> [EVAPORATION]
00047> ;;Data Source    Parameters
00048> ;;-------------- ----------------
00049> CONSTANT         0.0
00050> DRY_ONLY         NO
00051>
00052> [JUNCTIONS]
00053> ;;Name           Elevation  MaxDepth   InitDepth  SurDepth   Aponded
00054> ;;-------------- ---------- ---------- ---------- ---------- ----------
00055> 1                89.599     3.33       0          0          0
00056> 2                89.577     3.192      0          0          0
00057> 3                89.489     3.26       0          0          0
00058> 4                89.355     3.164      0          0          0
00059> MH-10            90.377     3.053      0          0          0
00060> MH-100           90.279     2.781      0          0          0
00061> MH-101           90.13      2.76       0          0          0
00062> MH-102           89.989     2.861      0          0          0
00063> MH-103           89.915     2.875      0          0          0
00064> MH-106           89.788     2.922      0          0          0
00065> MH-108           89.7       2.97       0          0          0
00066> MH-109           89.614     2.976      0          0          0
00067> MH-11            90.223     3.017      0          0          0
00068> MH-110           89.571     3.009      0          0          0
00069> MH-12            90.105     3.025      0          0          0
00070> MH-121           89.356     3.164      0          0          0
00071> MH-13            90.015     3.095      0          0          0
00072> MH-14            89.95      3.11       0          0          0
00073> MH-15            89.901     3.139      0          0          0
00074> MH-17            89.815     3.205      0          0          0
00075> MH-28            89.6       3.33       0          0          0
00076> MH-36            91.126     2.264      0          0          0
00077> MH-37            90.368     3.002      0          0          0
00078> MH-38            90.078     3.102      0          0          0
00079> MH-39            89.935     3.145      0          0          0
00080> MH-40            89.844     3.176      0          0          0
00081> MH-41            89.76      3.18       0          0          0
00082> MH-42            89.716     3.214      0          0          0
00083> MH-46            89.578     3.192      0          0          0
00084> MH-570           90.833     2.807      0          0          0
00085> MH-60            91.241     2.489      0          0          0
00086> MH-61            91.075     2.645      0          0          0
00087> MH-62            90.878     2.652      0          0          0
00088> MH-65            90.755     2.715      0          0          0
00089> MH-67            90.632     2.768      0          0          0
```

```
00090> MH-69            90.509     2.821      0          0          0
00091> MH-70            90.29      2.95       0          0          0
00092> MH-72            90.071     3.079      0          0          0
00093> MH-76            89.966     3.074      0          0          0
00094> MH-81            89.84      3.11       0          0          0
00095> MH-82            89.717     3.173      0          0          0
00096> MH-83            89.61      3.18       0          0          0
00097> MH-84            89.566     3.204      0          0          0
00098> MH-9             90.466     3.054      0          0          0
00099> MH-90            89.49      3.26       0          0          0
00100> MH-97            90.746     2.424      0          0          0
00101> MH-98            90.66      2.45       0          0          0
00102> MH-99            90.416     2.594      0          0          0
00103> OGS1             89.599     3.331      0          0          0
00104> OGS2             89.577     3.193      0          0          0
00105> OGS3             89.489     3.261      0          0          0
00106> OGS4             89.355     3.165      0          0          0
00107>
00108> [OUTFALLS]
00109> ;;Name           Elevation  Type       Stage Data       Gated    Route To
00110> ;;-------------- ---------- ---------- ---------------- -------- ----------------
00111> MH-1001          89.57      FIXED      92.06            NO
00112> MH-2000          89.57      FIXED      92.02            NO
00113> MH-3000          89.46      FIXED      92.02            NO
00114> MH-4001          89.35      FIXED      91.9             NO
00115>
00116> [CONDUITS]
00117> ;;Name           From Node        To Node          Length     Roughness  InOffset   OutOffset  InitFlow   MaxF
00118> ;;-------------- ---------------- ---------------- ---------- ---------- ---------- ---------- ---------- ----
00119> 1                MH-28            OGS1             0.735      0.013      0          0          0          0
00120> 2                OGS1             1                0.753      0.013      0          0          0          0
00121> 3                MH-46            OGS2             0.93       0.013      0          0          0          0
00122> 4                OGS2             2                0.9        0.013      0          0          0          0
00123> 5                MH-90            OGS3             0.89       0.013      0          0          0          0
00124> 6                OGS3             3                0.977      0.013      0          0          0          0
00125> 7                MH-121           OGS4             0.782      0.013      0          0          0          0
00126> 8                OGS4             4                0.747      0.013      0          0          0          0
00127> STM-100-101      MH-100           MH-101           67.5       0.013      0          0.075      0          0
00128> STM-10-11        MH-10            MH-11            122        0.013      0          0.02       0          0
00129> STM-101-102      MH-101           MH-102           60         0.013      0          0.075      0          0
00130> STM-102-103      MH-102           MH-103           49         0.013      0          0.02       0          0
00131> STM-103-106      MH-103           MH-106           47.5       0.013      0          0.075      0          0
00132> STM-106-108      MH-106           MH-108           25         0.013      0          0.06       0          0
00133> STM-108-109      MH-108           MH-109           50.5       0.013      0          0.03       0          0
00134> STM-109-110      MH-109           MH-110           12         0.013      0          0.03       0          0
00135> STM-110-121      MH-110           MH-121           59         0.013      0          0.15       0          0
00136> STM-11-12        MH-11            MH-12            80         0.013      0          0.03       0          0
00137> STM-12-13        MH-12            MH-13            13.5       0.013      0          0.075      0          0
00138> STM-121-4001_2   4                MH-4001          4.324      0.013      0          0          0          0
00139> STM-13-14        MH-13            MH-14            32         0.013      0          0.03       0          0
00140> STM-14-15        MH-14            MH-15            17         0.013      0          0.03       0          0
00141> STM-15-17        MH-15            MH-17            10         0.013      0          0.075      0          0
00142> STM-17-28        MH-17            MH-28            59         0.013      0          0.15       0          0
00143> STM-28-1001_2    1                MH-1001          26.301     0.013      0          0          0          0
00144> STM-36-37        MH-36            MH-37            13         0.013      0          0.719      0          0
00145> STM-37-38        MH-37            MH-38            127.5      0.013      0          0.15       0          0
00146> STM-38-39        MH-38            MH-39            62         0.013      0          0.075      0          0
00147> STM-39-40        MH-39            MH-40            64.5       0.013      0          0.02       0          0
00148> STM-40-41        MH-40            MH-41            49.5       0.013      0          0.03       0          0
00149> STM-41-42        MH-41            MH-42            13         0.013      0          0.03       0          0
00150> STM-42-46        MH-42            MH-46            107.5      0.013      0          0.02       0          0
00151> STM-46-2000_2    2                MH-2000          6.468      0.013      0          0          0          0
00152> STM-570-97       MH-570           MH-97            44.5       0.013      0          0.02       0          0
00153> STM-60-61        MH-60            MH-61            10.5       0.013      0          0.15       0          0
00154> STM-61-62        MH-61            MH-62            124.5      0.013      0          0.06       0          0
00155> STM-62-65        MH-62            MH-65            44         0.013      0          0.075      0          0
00156> STM-65-67        MH-65            MH-67            44         0.013      0          0.075      0          0
00157> STM-67-69        MH-67            MH-69            44         0.013      0          0.075      0          0
00158> STM-69-70        MH-69            MH-70            63         0.013      0          0.15       0          0
00159> STM-70-72        MH-70            MH-72            63         0.013      0          0.15       0          0
00160> STM-72-76        MH-72            MH-76            68.5       0.013      0          0.03       0          0
00161> STM-76-81        MH-76            MH-81            60         0.013      0          0.06       0          0
00162> STM-81-82        MH-81            MH-82            57.5       0.013      0          0.06       0          0
00163> STM-82-83        MH-82            MH-83            70         0.013      0          0.03       0          0
00164> STM-83-84        MH-83            MH-84            12.5       0.013      0          0.03       0          0
00165> STM-84-90        MH-84            MH-90            14.5       0.013      0          0.06       0          0
00166> STM-90-3000_2    3                MH-3000          25.761     0.013      0          0          0          0
00167> STM-9-10         MH-9             MH-10            62.5       0.013      0          0.02       0          0
00168> STM-97-98        MH-97            MH-98            44         0.013      0          0.02       0          0
00169> STM-98-99        MH-98            MH-99            62.5       0.013      0          0.15       0          0
00170> STM-99-100       MH-99            MH-100           56.5       0.013      0          0.075      0          0
00171>
00172> [WEIRS]
00173> ;;Name           From Node        To Node          Type         CrestHt    Qcoeff     Gated    EndCon   EndCoe
00174> ;;-------------- ---------------- ---------------- ------------ ---------- ---------- -------- -------- ------
00175> STM-121-4001_1   MH-121           4                TRANSVERSE   0.66       1.8        NO       0        2
00176> STM-28-1001_1    MH-28            1                TRANSVERSE   0.66       1.8        NO       0        2
00177> STM-46-2000_1    MH-46            2                TRANSVERSE   0.65       1.8        NO       0        2
00178> STM-90-3000_1    MH-90            3                TRANSVERSE   0.66       1.8        NO       0        2
```

```
00179>
00180> [XSECTIONS]
00181> ;;Link            Shape        Geom1            Geom2      Geom3      Geom4      Barrels    Culvert
00182> ;;--------------- ------------ ---------------- ---------- ---------- ---------- ---------- ----------
00183> 1                 CIRCULAR     0.75             0          0          0          1
00184> 2                 CIRCULAR     0.75             0          0          0          1
00185> 3                 CIRCULAR     0.675            0          0          0          1
00186> 4                 CIRCULAR     0.675            0          0          0          1
00187> 5                 CIRCULAR     0.75             0          0          0          1
00188> 6                 CIRCULAR     0.75             0          0          0          1
00189> 7                 CIRCULAR     0.75             0          0          0          1
00190> 8                 CIRCULAR     0.75             0          0          0          1
00191> STM-100-101       CIRCULAR     0.825            0          0          0          1
00192> STM-10-11         CIRCULAR     0.825            0          0          0          1
00193> STM-101-102       CIRCULAR     0.9              0          0          0          1
00194> STM-102-103       CIRCULAR     0.975            0          0          0          1
00195> STM-103-106       CIRCULAR     0.975            0          0          0          1
00196> STM-106-108       CIRCULAR     1.05             0          0          0          1
00197> STM-108-109       CIRCULAR     1.05             0          0          0          1
00198> STM-109-110       CIRCULAR     1.05             0          0          0          1
00199> STM-110-121       CIRCULAR     1.05             0          0          0          1
00200> STM-11-12         CIRCULAR     0.825            0          0          0          1
00201> STM-12-13         CIRCULAR     0.825            0          0          0          1
00202> STM-121-4001_2    CIRCULAR     1.2              0          0          0          1
00203> STM-13-14         CIRCULAR     0.9              0          0          0          1
00204> STM-14-15         CIRCULAR     0.9              0          0          0          1
00205> STM-15-17         CIRCULAR     0.9              0          0          0          1
00206> STM-17-28         CIRCULAR     0.9              0          0          0          1
00207> STM-28-1001_2     CIRCULAR     1.05             0          0          0          1
00208> STM-36-37         CIRCULAR     0.375            0          0          0          1
00209> STM-37-38         CIRCULAR     0.75             0          0          0          1
00210> STM-38-39         CIRCULAR     0.9              0          0          0          1
00211> STM-39-40         CIRCULAR     0.975            0          0          0          1
00212> STM-40-41         CIRCULAR     0.975            0          0          0          1
00213> STM-41-42         CIRCULAR     0.975            0          0          0          1
00214> STM-42-46         CIRCULAR     0.975            0          0          0          1
00215> STM-46-2000_2     CIRCULAR     0.975            0          0          0          1
00216> STM-570-97        CIRCULAR     0.6              0          0          0          1
00217> STM-60-61         CIRCULAR     0.6              0          0          0          1
00218> STM-61-62         CIRCULAR     0.75             0          0          0          1
00219> STM-62-65         CIRCULAR     0.75             0          0          0          1
00220> STM-65-67         CIRCULAR     0.825            0          0          0          1
00221> STM-67-69         CIRCULAR     0.9              0          0          0          1
00222> STM-69-70         CIRCULAR     0.9              0          0          0          1
00223> STM-70-72         CIRCULAR     1.05             0          0          0          1
00224> STM-72-76         CIRCULAR     1.2              0          0          0          1
00225> STM-76-81         CIRCULAR     1.2              0          0          0          1
00226> STM-81-82         CIRCULAR     1.2              0          0          0          1
00227> STM-82-83         CIRCULAR     1.2              0          0          0          1
00228> STM-83-84         CIRCULAR     1.2              0          0          0          1
00229> STM-84-90         CIRCULAR     1.2              0          0          0          1
00230> STM-90-3000_2     CIRCULAR     1.2              0          0          0          1
00231> STM-9-10          CIRCULAR     0.825            0          0          0          1
00232> STM-97-98         CIRCULAR     0.6              0          0          0          1
00233> STM-98-99         CIRCULAR     0.6              0          0          0          1
00234> STM-99-100        CIRCULAR     0.75             0          0          0          1
00235> STM-121-4001_1    RECT_OPEN    0.5              1.8        0          0
00236> STM-28-1001_1     RECT_OPEN    0.5              1.8        0          0
00237> STM-46-2000_1     RECT_OPEN    0.5              1.8        0          0
00238> STM-90-3000_1     RECT_OPEN    0.5              1.8        0          0
00239>
00240> [LOSSES]
00241> ;;Link            Kentry     Kexit      Kavg       Flap Gate  Seepage
00242> ;;--------------- ---------- ---------- ---------- ---------- ----------
00243> 1                 0          4          0          NO         0
00244> 2                 0          1.33       0          NO         0
00245> 3                 0          4          0          NO         0
00246> 4                 0          1.33       0          NO         0
00247> 5                 0          4          0          NO         0
00248> 6                 0          1.33       0          NO         0
00249> 7                 0          4          0          NO         0
00250> 8                 0          1.33       0          NO         0
00251> STM-100-101       0          0.035      0          NO         0
00252> STM-10-11         0          0.035      0          NO         0
00253> STM-101-102       0          0.02       0          NO         0
00254> STM-102-103       0          0.02       0          NO         0
00255> STM-103-106       0          1.33       0          NO         0
00256> STM-106-108       0          1.33       0          NO         0
00257> STM-108-109       0          0.32       0          NO         0
00258> STM-109-110       0          0.32       0          NO         0
00259> STM-110-121       0          0.95       0          NO         0
00260> STM-11-12         0          0.16       0          NO         0
00261> STM-12-13         0          0.39       0          NO         0
00262> STM-13-14         0          0.08       0          NO         0
00263> STM-14-15         0          0.08       0          NO         0
00264> STM-15-17         0          1.33       0          NO         0
00265> STM-17-28         0          0.02       0          NO         0
00266> STM-36-37         0          0.11       0          NO         0
00267> STM-37-38         0          0.035      0          NO         0
```

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00268> STM-38-39        0          1.33       0          NO         0
00269> STM-39-40        0          0.02       0          NO         0
00270> STM-40-41        0          0.47       0          NO         0
00271> STM-41-42        0          0.39       0          NO         0
00272> STM-42-46        0          0.02       0          NO         0
00273> STM-570-97       0          0.02       0          NO         0
00274> STM-60-61        0          0.21       0          NO         0
00275> STM-61-62        0          1.33       0          NO         0
00276> STM-62-65        0          1.33       0          NO         0
00277> STM-65-67        0          0.02       0          NO         0
00278> STM-67-69        0          0.02       0          NO         0
00279> STM-69-70        0          1.33       0          NO         0
00280> STM-70-72        0          1.33       0          NO         0
00281> STM-72-76        0          0.035      0          NO         0
00282> STM-76-81        0          1.33       0          NO         0
00283> STM-81-82        0          1.33       0          NO         0
00284> STM-82-83        0          0.39       0          NO         0
00285> STM-83-84        0          0.39       0          NO         0
00286> STM-84-90        0          1.33       0          NO         0
00287> STM-9-10         0          0.02       0          NO         0
00288> STM-97-98        0          0.02       0          NO         0
00289> STM-98-99        0          1.33       0          NO         0
00290> STM-99-100       0          1.33       0          NO         0
00291>
00292> [INFLOWS]
00293> ;;Node           Constituent      Time Series      Type     Mfactor  Sfactor  Baseline Pattern
00294> ;;-------------- ---------------- ---------------- -------- -------- -------- -------- --------
00295> MH-10           FLOW             ""               FLOW     1.0      1        61
00296> MH-100          FLOW             ""               FLOW     1.0      1        192
00297> MH-101          FLOW             ""               FLOW     1.0      1        120
00298> MH-102          FLOW             ""               FLOW     1.0      1        62
00299> MH-103          FLOW             ""               FLOW     1.0      1        52
00300> MH-106          FLOW             ""               FLOW     1.0      1        81
00301> MH-108          FLOW             ""               FLOW     1.0      1        46
00302> MH-11           FLOW             ""               FLOW     1.0      1        19
00303> MH-121          FLOW             ""               FLOW     1.0      1        227
00304> MH-13           FLOW             ""               FLOW     1.0      1        2
00305> MH-17           FLOW             ""               FLOW     1.0      1        36
00306> MH-28           FLOW             ""               FLOW     1.0      1        253
00307> MH-37           FLOW             ""               FLOW     1.0      1        121
00308> MH-38           FLOW             ""               FLOW     1.0      1        351
00309> MH-39           FLOW             ""               FLOW     1.0      1        5
00310> MH-40           FLOW             ""               FLOW     1.0      1        4
00311> MH-41           FLOW             ""               FLOW     1.0      1        1
00312> MH-42           FLOW             ""               FLOW     1.0      1        57
00313> MH-46           FLOW             ""               FLOW     1.0      1        42
00314> MH-570          FLOW             ""               FLOW     1.0      1        25
00315> MH-61           FLOW             ""               FLOW     1.0      1        129
00316> MH-62           FLOW             ""               FLOW     1.0      1        150
00317> MH-65           FLOW             ""               FLOW     1.0      1        102
00318> MH-67           FLOW             ""               FLOW     1.0      1        52
00319> MH-69           FLOW             ""               FLOW     1.0      1        56
00320> MH-70           FLOW             ""               FLOW     1.0      1        227
00321> MH-72           FLOW             ""               FLOW     1.0      1        38
00322> MH-76           FLOW             ""               FLOW     1.0      1        135
00323> MH-81           FLOW             ""               FLOW     1.0      1        54
00324> MH-82           FLOW             ""               FLOW     1.0      1        9
00325> MH-9            FLOW             ""               FLOW     1.0      1        328
00326> MH-90           FLOW             ""               FLOW     1.0      1        61
00327> MH-97           FLOW             ""               FLOW     1.0      1        63
00328> MH-98           FLOW             ""               FLOW     1.0      1        68
00329> MH-99           FLOW             ""               FLOW     1.0      1        18
00330>
00331> [REPORT]
00332> ;;Reporting Options
00333> INPUT      YES
00334> CONTROLS   NO
00335> SUBCATCHMENTS ALL
00336> NODES ALL
00337> LINKS ALL
00338>
00339> [TAGS]
00340> Node       MH-10           MH
00341> Node       MH-100          MH
00342> Node       MH-101          MH
00343> Node       MH-102          MH
00344> Node       MH-103          MH
00345> Node       MH-106          MH
00346> Node       MH-108          MH
00347> Node       MH-109          MH
00348> Node       MH-11           MH
00349> Node       MH-110          MH
00350> Node       MH-12           MH
00351> Node       MH-121          MH
00352> Node       MH-13           MH
00353> Node       MH-14           MH
00354> Node       MH-15           MH
00355> Node       MH-17           MH
00356> Node       MH-28           MH
```

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00357> Node       MH-36           MH
00358> Node       MH-37           MH
00359> Node       MH-38           MH
00360> Node       MH-39           MH
00361> Node       MH-40           MH
00362> Node       MH-41           MH
00363> Node       MH-42           MH
00364> Node       MH-46           MH
00365> Node       MH-570          MH
00366> Node       MH-60           MH
00367> Node       MH-61           MH
00368> Node       MH-62           MH
00369> Node       MH-65           MH
00370> Node       MH-67           MH
00371> Node       MH-69           MH
00372> Node       MH-70           MH
00373> Node       MH-72           MH
00374> Node       MH-76           MH
00375> Node       MH-81           MH
00376> Node       MH-82           MH
00377> Node       MH-83           MH
00378> Node       MH-84           MH
00379> Node       MH-9            MH
00380> Node       MH-90           MH
00381> Node       MH-97           MH
00382> Node       MH-98           MH
00383> Node       MH-99           MH
00384> Node       MH-1001         MH
00385> Node       MH-2000         MH
00386> Node       MH-3000         MH
00387> Node       MH-4001         MH
00388>
00389> [MAP]
00390> DIMENSIONS       361167.0976      5012598.77375    362012.5884      5013304.82525
00391> UNITS            Meters
00392>
00393> [COORDINATES]
00394> ;;Node           X-Coord            Y-Coord
00395> ;;-------------- ------------------ ------------------
00396> 1                361397.805         5012655.104
00397> 2                361514.378         5012694.566
00398> 3                361651.362         5012795.237
00399> 4                361972.422         5012832.031
00400> MH-10            361229.473         5012901.573
00401> MH-100           361770.387         5013075.776
00402> MH-101           361797.145         5013013.577
00403> MH-102           361821.057         5012958.819
00404> MH-103           361840.671         5012914.024
00405> MH-106           361859.784         5012870.375
00406> MH-108           361882.782         5012880.618
00407> MH-109           361903.056         5012834.317
00408> MH-11            361276.266         5012789.141
00409> MH-110           361913.458         5012828.108
00410> MH-12            361307.29          5012715.44
00411> MH-121           361972.037         5012832.911
00412> MH-13            361316.727         5012706.114
00413> MH-14            361348.591         5012703.619
00414> MH-15            361365.578         5012706.457
00415> MH-17            361374.51          5012710.416
00416> MH-28            361397.42          5012656.019
00417> MH-36            361274.201         5012939.975
00418> MH-37            361282.629         5012930.004
00419> MH-38            361331.549         5012812.424
00420> MH-39            361355.516         5012755.515
00421> MH-40            361414.729         5012780.453
00422> MH-41            361460.146         5012799.578
00423> MH-42            361472.228         5012794.652
00424> MH-46            361513.992         5012695.483
00425> MH-570           361657.22          5013191.185
00426> MH-60            361513.921         5013272.732
00427> MH-61            361513.285         5013262.473
00428> MH-62            361563.864         5013148.92
00429> MH-65            361523.763         5013131.057
00430> MH-67            361541.625         5013090.956
00431> MH-69            361559.487         5013050.854
00432> MH-70            361585.105         5012993.338
00433> MH-72            361642.459         5013019.665
00434> MH-76            361670.332         5012957.093
00435> MH-81            361693.64          5012902.065
00436> MH-82            361641.33          5012878.765
00437> MH-83            361668.398         5012814.088
00438> MH-84            361663.904         5012802.313
00439> MH-9             361205.529         5012959.106
00440> MH-90            361650.936         5012796.131
00441> MH-97            361675.279         5013150.488
00442> MH-98            361693.086         5013110.361
00443> MH-99            361718.45          5013053.203
00444> OGS1             361398.117         5012655.795
00445> OGS2             361514.896         5012695.296
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00446> OGS3             361650.404         5012795.416
00447> OGS4             361972.786         5012832.684
00448> MH-1001          361408.013         5012630.867
00449> MH-2000          361516.888         5012688.605
00450> MH-3000          361662.443         5012771.982
00451> MH-4001          361974.157         5012828.07
00452>
00453> [VERTICES]
00454> ;;Link           X-Coord            Y-Coord
00455> ;;-------------- ------------------ ------------------
00456>
```

```
00001> [TITLE]
00002> ;;Project Title/Notes
00003>
00004> [OPTIONS]
00005> ;;Option             Value
00006> FLOW_UNITS           LPS
00007> INFILTRATION         HORTON
00008> FLOW_ROUTING         DYNWAVE
00009> LINK_OFFSETS         DEPTH
00010> MIN_SLOPE            0
00011> ALLOW_PONDING        NO
00012> SKIP_STEADY_STATE    NO
00013>
00014> START_DATE           12/05/2022
00015> START_TIME           00:00:00
00016> REPORT_START_DATE    12/05/2022
00017> REPORT_START_TIME    00:00:00
00018> END_DATE             12/06/2022
00019> END_TIME             00:00:00
00020> SWEEP_START          01/01
00021> SWEEP_END            12/31
00022> DRY_DAYS             0
00023> REPORT_STEP          00:01:00
00024> WET_STEP             00:05:00
00025> DRY_STEP             00:05:00
00026> ROUTING_STEP         5
00027> RULE_STEP            00:00:00
00028>
00029> INERTIAL_DAMPING     PARTIAL
00030> NORMAL_FLOW_LIMITED  BOTH
00031> FORCE_MAIN_EQUATION  H-W
00032> VARIABLE_STEP        0.75
00033> LENGTHENING_STEP     0
00034> MIN_SURFAREA         0
00035> MAX_TRIALS           8
00036> HEAD_TOLERANCE       0.0015
00037> SYS_FLOW_TOL         5
00038> LAT_FLOW_TOL         5
00039> MINIMUM_STEP         0.5
00040> THREADS              6
00041>
00042> [FILES]
00043> ;;Interfacing Files
00044> USE HOTSTART "C:\OneDrive\J.F. Sabourin and Associates Inc\JFSA-OTTAWA-SERVER - Documents\PROJ\1474(03)-21\202
00045>
00046> [EVAPORATION]
00047> ;;Data Source    Parameters
00048> ;;-------------- ----------------
00049> CONSTANT         0.0
00050> DRY_ONLY         NO
00051>
00052> [JUNCTIONS]
00053> ;;Name           Elevation  MaxDepth   InitDepth  SurDepth   Aponded
00054> ;;-------------- ---------- ---------- ---------- ---------- ----------
00055> 1                89.599     3.33       0          0          0
00056> 2                89.577     3.192      0          0          0
00057> 3                89.489     3.26       0          0          0
00058> 4                89.355     3.164      0          0          0
00059> MH-10            90.377     3.053      0          0          0
00060> MH-100           90.279     2.781      0          0          0
00061> MH-101           90.13      2.76       0          0          0
00062> MH-102           89.989     2.861      0          0          0
00063> MH-103           89.915     2.875      0          0          0
00064> MH-106           89.788     2.922      0          0          0
00065> MH-108           89.7       2.97       0          0          0
00066> MH-109           89.614     2.976      0          0          0
00067> MH-11            90.223     3.017      0          0          0
00068> MH-110           89.571     3.009      0          0          0
00069> MH-12            90.105     3.025      0          0          0
00070> MH-121           89.356     3.164      0          0          0
00071> MH-13            90.015     3.095      0          0          0
00072> MH-14            89.95      3.11       0          0          0
00073> MH-15            89.901     3.139      0          0          0
00074> MH-17            89.815     3.205      0          0          0
00075> MH-28            89.6       3.33       0          0          0
00076> MH-36            91.126     2.264      0          0          0
00077> MH-37            90.368     3.002      0          0          0
00078> MH-38            90.078     3.102      0          0          0
00079> MH-39            89.935     3.145      0          0          0
00080> MH-40            89.844     3.176      0          0          0
00081> MH-41            89.76      3.18       0          0          0
00082> MH-42            89.716     3.214      0          0          0
00083> MH-46            89.578     3.192      0          0          0
00084> MH-570           90.833     2.807      0          0          0
00085> MH-60            91.241     2.489      0          0          0
00086> MH-61            91.075     2.645      0          0          0
00087> MH-62            90.878     2.652      0          0          0
00088> MH-65            90.755     2.715      0          0          0
00089> MH-67            90.632     2.768      0          0          0
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00090> MH-69            90.509     2.821      0          0          0
00091> MH-70            90.29      2.95       0          0          0
00092> MH-72            90.071     3.079      0          0          0
00093> MH-76            89.966     3.074      0          0          0
00094> MH-81            89.84      3.11       0          0          0
00095> MH-82            89.717     3.173      0          0          0
00096> MH-83            89.61      3.18       0          0          0
00097> MH-84            89.566     3.204      0          0          0
00098> MH-9             90.466     3.054      0          0          0
00099> MH-90            89.49      3.26       0          0          0
00100> MH-97            90.746     2.424      0          0          0
00101> MH-98            90.66      2.45       0          0          0
00102> MH-99            90.416     2.594      0          0          0
00103> OGS1             89.599     3.331      0          0          0
00104> OGS2             89.577     3.193      0          0          0
00105> OGS3             89.489     3.261      0          0          0
00106> OGS4             89.355     3.165      0          0          0
00107>
00108> [OUTFALLS]
00109> ;;Name           Elevation  Type       Stage Data       Gated    Route To
00110> ;;-------------- ---------- ---------- ---------------- -------- ----------------
00111> MH-1001          89.57      FIXED      91.35            NO
00112> MH-2000          89.57      FIXED      91.3             NO
00113> MH-3000          89.46      FIXED      91.3             NO
00114> MH-4001          89.35      FIXED      91.17            NO
00115>
00116> [CONDUITS]
00117> ;;Name           From Node        To Node          Length     Roughness  InOffset   OutOffset  InitFlow   MaxF
00118> ;;-------------- ---------------- ---------------- ---------- ---------- ---------- ---------- ---------- ----
00119> 1                MH-28            OGS1             0.735      0.013      0          0          0          0
00120> 2                OGS1             1                0.753      0.013      0          0          0          0
00121> 3                MH-46            OGS2             0.93       0.013      0          0          0          0
00122> 4                OGS2             2                0.9        0.013      0          0          0          0
00123> 5                MH-90            OGS3             0.89       0.013      0          0          0          0
00124> 6                OGS3             3                0.977      0.013      0          0          0          0
00125> 7                MH-121           OGS4             0.782      0.013      0          0          0          0
00126> 8                OGS4             4                0.747      0.013      0          0          0          0
00127> STM-100-101      MH-100           MH-101           67.5       0.013      0          0.075      0          0
00128> STM-10-11        MH-10            MH-11            122        0.013      0          0.02       0          0
00129> STM-101-102      MH-101           MH-102           60         0.013      0          0.075      0          0
00130> STM-102-103      MH-102           MH-103           49         0.013      0          0.02       0          0
00131> STM-103-106      MH-103           MH-106           47.5       0.013      0          0.075      0          0
00132> STM-106-108      MH-106           MH-108           25         0.013      0          0.06       0          0
00133> STM-108-109      MH-108           MH-109           50.5       0.013      0          0.03       0          0
00134> STM-109-110      MH-109           MH-110           12         0.013      0          0.03       0          0
00135> STM-110-121      MH-110           MH-121           59         0.013      0          0.15       0          0
00136> STM-11-12        MH-11            MH-12            80         0.013      0          0.03       0          0
00137> STM-12-13        MH-12            MH-13            13.5       0.013      0          0.075      0          0
00138> STM-121-4001_2   4                MH-4001          4.324      0.013      0          0          0          0
00139> STM-13-14        MH-13            MH-14            32         0.013      0          0.03       0          0
00140> STM-14-15        MH-14            MH-15            17         0.013      0          0.03       0          0
00141> STM-15-17        MH-15            MH-17            10         0.013      0          0.075      0          0
00142> STM-17-28        MH-17            MH-28            59         0.013      0          0.15       0          0
00143> STM-28-1001_2    1                MH-1001          26.301     0.013      0          0          0          0
00144> STM-36-37        MH-36            MH-37            13         0.013      0          0.719      0          0
00145> STM-37-38        MH-37            MH-38            127.5      0.013      0          0.15       0          0
00146> STM-38-39        MH-38            MH-39            62         0.013      0          0.075      0          0
00147> STM-39-40        MH-39            MH-40            64.5       0.013      0          0.02       0          0
00148> STM-40-41        MH-40            MH-41            49.5       0.013      0          0.03       0          0
00149> STM-41-42        MH-41            MH-42            13         0.013      0          0.03       0          0
00150> STM-42-46        MH-42            MH-46            107.5      0.013      0          0.02       0          0
00151> STM-46-2000_2    2                MH-2000          6.468      0.013      0          0          0          0
00152> STM-570-97       MH-570           MH-97            44.5       0.013      0          0.02       0          0
00153> STM-60-61        MH-60            MH-61            10.5       0.013      0          0.15       0          0
00154> STM-61-62        MH-61            MH-62            124.5      0.013      0          0.06       0          0
00155> STM-62-65        MH-62            MH-65            44         0.013      0          0.075      0          0
00156> STM-65-67        MH-65            MH-67            44         0.013      0          0.075      0          0
00157> STM-67-69        MH-67            MH-69            44         0.013      0          0.075      0          0
00158> STM-69-70        MH-69            MH-70            63         0.013      0          0.15       0          0
00159> STM-70-72        MH-70            MH-72            63         0.013      0          0.15       0          0
00160> STM-72-76        MH-72            MH-76            68.5       0.013      0          0.03       0          0
00161> STM-76-81        MH-76            MH-81            60         0.013      0          0.06       0          0
00162> STM-81-82        MH-81            MH-82            57.5       0.013      0          0.06       0          0
00163> STM-82-83        MH-82            MH-83            70         0.013      0          0.03       0          0
00164> STM-83-84        MH-83            MH-84            12.5       0.013      0          0.03       0          0
00165> STM-84-90        MH-84            MH-90            14.5       0.013      0          0.06       0          0
00166> STM-90-3000_2    3                MH-3000          25.761     0.013      0          0          0          0
00167> STM-9-10         MH-9             MH-10            62.5       0.013      0          0.02       0          0
00168> STM-97-98        MH-97            MH-98            44         0.013      0          0.02       0          0
00169> STM-98-99        MH-98            MH-99            62.5       0.013      0          0.15       0          0
00170> STM-99-100       MH-99            MH-100           56.5       0.013      0          0.075      0          0
00171>
00172> [WEIRS]
00173> ;;Name           From Node        To Node          Type         CrestHt    Qcoeff     Gated    EndCon   EndCoe
00174> ;;-------------- ---------------- ---------------- ------------ ---------- ---------- -------- -------- ------
00175> STM-121-4001_1   MH-121           4                TRANSVERSE   0.66       1.8        NO       0        2
00176> STM-28-1001_1    MH-28            1                TRANSVERSE   0.66       1.8        NO       0        2
00177> STM-46-2000_1    MH-46            2                TRANSVERSE   0.65       1.8        NO       0        2
00178> STM-90-3000_1    MH-90            3                TRANSVERSE   0.66       1.8        NO       0        2
```

```
00179>
00180> [XSECTIONS]
00181> ;;Link            Shape        Geom1            Geom2      Geom3      Geom4      Barrels    Culvert
00182> ;;--------------- ------------ ---------------- ---------- ---------- ---------- ---------- ----------
00183> 1                 CIRCULAR     0.75             0          0          0          1
00184> 2                 CIRCULAR     0.75             0          0          0          1
00185> 3                 CIRCULAR     0.675            0          0          0          1
00186> 4                 CIRCULAR     0.675            0          0          0          1
00187> 5                 CIRCULAR     0.75             0          0          0          1
00188> 6                 CIRCULAR     0.75             0          0          0          1
00189> 7                 CIRCULAR     0.75             0          0          0          1
00190> 8                 CIRCULAR     0.75             0          0          0          1
00191> STM-100-101       CIRCULAR     0.825            0          0          0          1
00192> STM-10-11         CIRCULAR     0.825            0          0          0          1
00193> STM-101-102       CIRCULAR     0.9              0          0          0          1
00194> STM-102-103       CIRCULAR     0.975            0          0          0          1
00195> STM-103-106       CIRCULAR     0.975            0          0          0          1
00196> STM-106-108       CIRCULAR     1.05             0          0          0          1
00197> STM-108-109       CIRCULAR     1.05             0          0          0          1
00198> STM-109-110       CIRCULAR     1.05             0          0          0          1
00199> STM-110-121       CIRCULAR     1.05             0          0          0          1
00200> STM-11-12         CIRCULAR     0.825            0          0          0          1
00201> STM-12-13         CIRCULAR     0.825            0          0          0          1
00202> STM-121-4001_2    CIRCULAR     1.2              0          0          0          1
00203> STM-13-14         CIRCULAR     0.9              0          0          0          1
00204> STM-14-15         CIRCULAR     0.9              0          0          0          1
00205> STM-15-17         CIRCULAR     0.9              0          0          0          1
00206> STM-17-28         CIRCULAR     0.9              0          0          0          1
00207> STM-28-1001_2     CIRCULAR     1.05             0          0          0          1
00208> STM-36-37         CIRCULAR     0.375            0          0          0          1
00209> STM-37-38         CIRCULAR     0.75             0          0          0          1
00210> STM-38-39         CIRCULAR     0.9              0          0          0          1
00211> STM-39-40         CIRCULAR     0.975            0          0          0          1
00212> STM-40-41         CIRCULAR     0.975            0          0          0          1
00213> STM-41-42         CIRCULAR     0.975            0          0          0          1
00214> STM-42-46         CIRCULAR     0.975            0          0          0          1
00215> STM-46-2000_2     CIRCULAR     0.975            0          0          0          1
00216> STM-570-97        CIRCULAR     0.6              0          0          0          1
00217> STM-60-61         CIRCULAR     0.6              0          0          0          1
00218> STM-61-62         CIRCULAR     0.75             0          0          0          1
00219> STM-62-65         CIRCULAR     0.75             0          0          0          1
00220> STM-65-67         CIRCULAR     0.825            0          0          0          1
00221> STM-67-69         CIRCULAR     0.9              0          0          0          1
00222> STM-69-70         CIRCULAR     0.9              0          0          0          1
00223> STM-70-72         CIRCULAR     1.05             0          0          0          1
00224> STM-72-76         CIRCULAR     1.2              0          0          0          1
00225> STM-76-81         CIRCULAR     1.2              0          0          0          1
00226> STM-81-82         CIRCULAR     1.2              0          0          0          1
00227> STM-82-83         CIRCULAR     1.2              0          0          0          1
00228> STM-83-84         CIRCULAR     1.2              0          0          0          1
00229> STM-84-90         CIRCULAR     1.2              0          0          0          1
00230> STM-90-3000_2     CIRCULAR     1.2              0          0          0          1
00231> STM-9-10          CIRCULAR     0.825            0          0          0          1
00232> STM-97-98         CIRCULAR     0.6              0          0          0          1
00233> STM-98-99         CIRCULAR     0.6              0          0          0          1
00234> STM-99-100        CIRCULAR     0.75             0          0          0          1
00235> STM-121-4001_1    RECT_OPEN    0.5              1.8        0          0
00236> STM-28-1001_1     RECT_OPEN    0.5              1.8        0          0
00237> STM-46-2000_1     RECT_OPEN    0.5              1.8        0          0
00238> STM-90-3000_1     RECT_OPEN    0.5              1.8        0          0
00239>
00240> [LOSSES]
00241> ;;Link            Kentry     Kexit      Kavg       Flap Gate  Seepage
00242> ;;--------------- ---------- ---------- ---------- ---------- ----------
00243> 1                 0          4          0          NO         0
00244> 2                 0          1.33       0          NO         0
00245> 3                 0          4          0          NO         0
00246> 4                 0          1.33       0          NO         0
00247> 5                 0          4          0          NO         0
00248> 6                 0          1.33       0          NO         0
00249> 7                 0          4          0          NO         0
00250> 8                 0          1.33       0          NO         0
00251> STM-100-101       0          0.035      0          NO         0
00252> STM-10-11         0          0.035      0          NO         0
00253> STM-101-102       0          0.02       0          NO         0
00254> STM-102-103       0          0.02       0          NO         0
00255> STM-103-106       0          1.33       0          NO         0
00256> STM-106-108       0          1.33       0          NO         0
00257> STM-108-109       0          0.32       0          NO         0
00258> STM-109-110       0          0.32       0          NO         0
00259> STM-110-121       0          0.95       0          NO         0
00260> STM-11-12         0          0.16       0          NO         0
00261> STM-12-13         0          0.39       0          NO         0
00262> STM-13-14         0          0.08       0          NO         0
00263> STM-14-15         0          0.08       0          NO         0
00264> STM-15-17         0          1.33       0          NO         0
00265> STM-17-28         0          0.02       0          NO         0
00266> STM-36-37         0          0.11       0          NO         0
00267> STM-37-38         0          0.035      0          NO         0
```

```
00268> STM-38-39        0          1.33       0          NO         0
00269> STM-39-40        0          0.02       0          NO         0
00270> STM-40-41        0          0.47       0          NO         0
00271> STM-41-42        0          0.39       0          NO         0
00272> STM-42-46        0          0.02       0          NO         0
00273> STM-570-97       0          0.02       0          NO         0
00274> STM-60-61        0          0.21       0          NO         0
00275> STM-61-62        0          1.33       0          NO         0
00276> STM-62-65        0          1.33       0          NO         0
00277> STM-65-67        0          0.02       0          NO         0
00278> STM-67-69        0          0.02       0          NO         0
00279> STM-69-70        0          1.33       0          NO         0
00280> STM-70-72        0          1.33       0          NO         0
00281> STM-72-76        0          0.035      0          NO         0
00282> STM-76-81        0          1.33       0          NO         0
00283> STM-81-82        0          1.33       0          NO         0
00284> STM-82-83        0          0.39       0          NO         0
00285> STM-83-84        0          0.39       0          NO         0
00286> STM-84-90        0          1.33       0          NO         0
00287> STM-9-10         0          0.02       0          NO         0
00288> STM-97-98        0          0.02       0          NO         0
00289> STM-98-99        0          1.33       0          NO         0
00290> STM-99-100       0          1.33       0          NO         0
00291>
00292> [INFLOWS]
00293> ;;Node           Constituent      Time Series      Type     Mfactor  Sfactor  Baseline Pattern
00294> ;;-------------- ---------------- ---------------- -------- -------- -------- -------- --------
00295> MH-10           FLOW             ""               FLOW     1.0      1        70
00296> MH-100          FLOW             ""               FLOW     1.0      1        219
00297> MH-101          FLOW             ""               FLOW     1.0      1        137
00298> MH-102          FLOW             ""               FLOW     1.0      1        71
00299> MH-103          FLOW             ""               FLOW     1.0      1        59
00300> MH-106          FLOW             ""               FLOW     1.0      1        92
00301> MH-108          FLOW             ""               FLOW     1.0      1        52
00302> MH-11           FLOW             ""               FLOW     1.0      1        22
00303> MH-121          FLOW             ""               FLOW     1.0      1        259
00304> MH-13           FLOW             ""               FLOW     1.0      1        2
00305> MH-17           FLOW             ""               FLOW     1.0      1        41
00306> MH-28           FLOW             ""               FLOW     1.0      1        288
00307> MH-37           FLOW             ""               FLOW     1.0      1        138
00308> MH-38           FLOW             ""               FLOW     1.0      1        400
00309> MH-39           FLOW             ""               FLOW     1.0      1        6
00310> MH-40           FLOW             ""               FLOW     1.0      1        5
00311> MH-41           FLOW             ""               FLOW     1.0      1        1
00312> MH-42           FLOW             ""               FLOW     1.0      1        65
00313> MH-46           FLOW             ""               FLOW     1.0      1        48
00314> MH-570          FLOW             ""               FLOW     1.0      1        29
00315> MH-61           FLOW             ""               FLOW     1.0      1        147
00316> MH-62           FLOW             ""               FLOW     1.0      1        171
00317> MH-65           FLOW             ""               FLOW     1.0      1        116
00318> MH-67           FLOW             ""               FLOW     1.0      1        59
00319> MH-69           FLOW             ""               FLOW     1.0      1        64
00320> MH-70           FLOW             ""               FLOW     1.0      1        259
00321> MH-72           FLOW             ""               FLOW     1.0      1        43
00322> MH-76           FLOW             ""               FLOW     1.0      1        154
00323> MH-81           FLOW             ""               FLOW     1.0      1        62
00324> MH-82           FLOW             ""               FLOW     1.0      1        10
00325> MH-9            FLOW             ""               FLOW     1.0      1        374
00326> MH-90           FLOW             ""               FLOW     1.0      1        70
00327> MH-97           FLOW             ""               FLOW     1.0      1        72
00328> MH-98           FLOW             ""               FLOW     1.0      1        78
00329> MH-99           FLOW             ""               FLOW     1.0      1        21
00330>
00331> [REPORT]
00332> ;;Reporting Options
00333> INPUT      YES
00334> CONTROLS   NO
00335> SUBCATCHMENTS ALL
00336> NODES ALL
00337> LINKS ALL
00338>
00339> [TAGS]
00340> Node       MH-10           MH
00341> Node       MH-100          MH
00342> Node       MH-101          MH
00343> Node       MH-102          MH
00344> Node       MH-103          MH
00345> Node       MH-106          MH
00346> Node       MH-108          MH
00347> Node       MH-109          MH
00348> Node       MH-11           MH
00349> Node       MH-110          MH
00350> Node       MH-12           MH
00351> Node       MH-121          MH
00352> Node       MH-13           MH
00353> Node       MH-14           MH
00354> Node       MH-15           MH
00355> Node       MH-17           MH
00356> Node       MH-28           MH
```

```
00357> Node       MH-36           MH
00358> Node       MH-37           MH
00359> Node       MH-38           MH
00360> Node       MH-39           MH
00361> Node       MH-40           MH
00362> Node       MH-41           MH
00363> Node       MH-42           MH
00364> Node       MH-46           MH
00365> Node       MH-570          MH
00366> Node       MH-60           MH
00367> Node       MH-61           MH
00368> Node       MH-62           MH
00369> Node       MH-65           MH
00370> Node       MH-67           MH
00371> Node       MH-69           MH
00372> Node       MH-70           MH
00373> Node       MH-72           MH
00374> Node       MH-76           MH
00375> Node       MH-81           MH
00376> Node       MH-82           MH
00377> Node       MH-83           MH
00378> Node       MH-84           MH
00379> Node       MH-9            MH
00380> Node       MH-90           MH
00381> Node       MH-97           MH
00382> Node       MH-98           MH
00383> Node       MH-99           MH
00384> Node       MH-1001         MH
00385> Node       MH-2000         MH
00386> Node       MH-3000         MH
00387> Node       MH-4001         MH
00388>
00389> [MAP]
00390> DIMENSIONS       361167.0976      5012598.77375    362012.5884      5013304.82525
00391> UNITS            Meters
00392>
00393> [COORDINATES]
00394> ;;Node           X-Coord            Y-Coord
00395> ;;-------------- ------------------ ------------------
00396> 1                361397.805         5012655.104
00397> 2                361514.378         5012694.566
00398> 3                361651.362         5012795.237
00399> 4                361972.422         5012832.031
00400> MH-10            361229.473         5012901.573
00401> MH-100           361770.387         5013075.776
00402> MH-101           361797.145         5013013.577
00403> MH-102           361821.057         5012958.819
00404> MH-103           361840.671         5012914.024
00405> MH-106           361859.784         5012870.375
00406> MH-108           361882.782         5012880.618
00407> MH-109           361903.056         5012834.317
00408> MH-11            361276.266         5012789.141
00409> MH-110           361913.458         5012828.108
00410> MH-12            361307.29          5012715.44
00411> MH-121           361972.037         5012832.911
00412> MH-13            361316.727         5012706.114
00413> MH-14            361348.591         5012703.619
00414> MH-15            361365.578         5012706.457
00415> MH-17            361374.51          5012710.416
00416> MH-28            361397.42          5012656.019
00417> MH-36            361274.201         5012939.975
00418> MH-37            361282.629         5012930.004
00419> MH-38            361331.549         5012812.424
00420> MH-39            361355.516         5012755.515
00421> MH-40            361414.729         5012780.453
00422> MH-41            361460.146         5012799.578
00423> MH-42            361472.228         5012794.652
00424> MH-46            361513.992         5012695.483
00425> MH-570           361657.22          5013191.185
00426> MH-60            361513.921         5013272.732
00427> MH-61            361513.285         5013262.473
00428> MH-62            361563.864         5013148.92
00429> MH-65            361523.763         5013131.057
00430> MH-67            361541.625         5013090.956
00431> MH-69            361559.487         5013050.854
00432> MH-70            361585.105         5012993.338
00433> MH-72            361642.459         5013019.665
00434> MH-76            361670.332         5012957.093
00435> MH-81            361693.64          5012902.065
00436> MH-82            361641.33          5012878.765
00437> MH-83            361668.398         5012814.088
00438> MH-84            361663.904         5012802.313
00439> MH-9             361205.529         5012959.106
00440> MH-90            361650.936         5012796.131
00441> MH-97            361675.279         5013150.488
00442> MH-98            361693.086         5013110.361
00443> MH-99            361718.45          5013053.203
00444> OGS1             361398.117         5012655.795
00445> OGS2             361514.896         5012695.296
```

```
00446> OGS3             361650.404         5012795.416
00447> OGS4             361972.786         5012832.684
00448> MH-1001          361408.013         5012630.867
00449> MH-2000          361516.888         5012688.605
00450> MH-3000          361662.443         5012771.982
00451> MH-4001          361974.157         5012828.07
00452>
00453> [VERTICES]
00454> ;;Link           X-Coord            Y-Coord
00455> ;;-------------- ------------------ ------------------
00456>
```

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December 13, 2022 Project Number: 1474

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Attention: **Kevin Murphy, P.Eng**

Subject: **Barrhaven Conservancy West – Preliminary Water Balance**

Introduction

Barrhaven Conservancy West Development is located in Barrhaven, Ontario, north of the Jock River, east of Highway 416 and west of the Foster Drain. The proposed development is approximately **34.15 ha** that will primarily comprise of single and townhouse residential lots. The following memo outlines how the proposed development will match/exceed the existing water budget through the use of LIDs.

Water Balance Overview

A pre-and post-development water balance has been completed for the site based on continuous hydrologic model simulations. As such a SWMHYMO model was developed that reflects the hydrologic conditions of these lands under pre-development, post-development without LIDs and post-development with LIDs conditions. These models were run using 36 years of hourly rainfall data from the Ottawa International Airport from 1967 to 2003 (excluding 2001 - missing rainfall data), and the average annual runoff volumes from the subject site were computed and compared. **Table A1 in Attachment A** outlines the continuous modelling parameters for both pre and post-development conditions. The following section outlines the modelling approach for each scenario and the results of this analysis.

Pre-Development

Based on the Soil Survey Complex mapping from the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) the site primarily consists of Carsonby - Silt (Type C) and Brandon -Silty Clay- (Type D) Soils. This was confirmed by Paterson Groups through onsite field investigations and boreholes which also reported Silt and Silty Clays through the majority of the site.

Based on the Southern Ontario Land Resource Information System (SOLRIS) the site consists primarily of tilled lands and hedgerows. Based on the underlying Land Use Type and Soil Classification at each location within a subcatchment, a Curve Number (CN) was calculated, based on applicable values outlined in **Tables A2 and A3** in the SWMHYMO Manual. Each Curve Number was then weighted based on the total area within the subcatchment to determine the weighted CN for that subcatchment. The CN value calculated was then converted to CN*, as CN* values have been shown to correlate well with measured flows and perform well in continuous SWMHYMO modelling (as discussed in the July 1989 INTERHYMO / OTTHYMO 89 Manual), when compared to conventional CN. Full details of the derivation of CN under existing conditions have been outlined in **Table A2** and **Figures A1 & A2** in **Attachment A**.

For this area, the time to peak (Tp) has been calculated based on existing topography. Flow paths have been discretized based on the topographic data using GIS tools and the longest major flow path within the subcatchment identified; refer to **Figure A3 in Attachment A** for the flow paths discretized for these lands. The upstream and downstream topographic elevations and flow lengths were identified for this subcatchment and used in the calculations. For these lands, the Federal Aviation Administration (FFA) method was determined to be the most appropriate method to calculate the Tp. Full details of these calculations have been provided in **Table A3 in Attachment A**, along with other time-to-peak values using alternative Tp calculation methods. This site under pre-development conditions has been represented in SWMHYMO using a CONTINUOUS NASHYD command, with all continuous parameters outlined in **Table A1 of Attachment A**. Note that the pre-development areas have been represented as 2 individual areas (east and west of the Okeefe drain) with the results of both areas added together to provide the full site pre-development water budget.

Post-Development – Without LIDs

Under post-development conditions, the site will have 4 individual storm sewer outlets, as such the development lands have been broken into these 4 discrete areas (with a total drainage area of 34.15 ha, matching existing conditions). Based on the development conceptual plan, the 34.15 ha site will have a total imperviousness of 68%, see figure A4 in Attachment A for an overview of the proposed development plan. These developed lands have been represented using CONTINUOUS STANDHYD commands in SWMHYMO. This scenario has been provided to quantify the average annual reduction in infiltration volume throughout the site due to the increase in impervious area.

In order to best represent infiltration over a long simulation period, and to provide a consistent comparison between pre- and post-development conditions, the SCS procedure was used to simulate infiltration over the subject site for both pre-and post-development conditions. Under post-development conditions, soils in the development areas will be defined by the characteristics of topsoil, which has a CN of 79 (CN* = 71) for urban lawns in fair condition.

Post-Development – With LIDs

As mentioned above the proposed development will have LIDs implemented throughout the site to offset any deficit in annual infiltration volume produced by the increase in the impervious area due to the development. For this analysis, it is assumed that the development will have infiltration LIDs implemented at the road catch basins. Runoff captured by the road catch basins will be directed to an infiltration trench, where it can infiltrate before discharging to the storm sewer system (see *Figure 5* in DSEL *Figures & Drawings* package for more details about the proposed LID configuration). A conceptual design of these LIDs systems has been completed but will be refined at detailed design when detailed grading is available, to yield optimal benefit from this LID approach. **Table 1** below outlines the parameters of these conceptual LIDs based on the current development plan. Each of the LID clusters have been represented in the model as single lumped ROUTE RESERVOIR commands, with the outflow of each command reflective of the soil infiltration rate and the volume reflective of the storage volume within each LID.

Soil Infiltration & Draw Down Time

Based on the Paterson Groups' geotechnical Investigation, the site consists of soil that typically has infiltration rates in the range of **9 mm/hr - 25 mm/hr**. As such it has been assumed that this site will have an infiltration rate of 9mm/hr with a safety factor of 2.5 (3.6 mm/hr). Based on a trench height of 0.4 m (with a void ratio of 0.4) these trenches will have a draw downtime of approximately **45 hours**. Note that in this analysis it is assumed that only the bottom of the trench can infiltrate, which is a conservative assumption.

Table 1: Proposed LID Summary

Parameter	OGS W1	OGS W2	OGS W3	OGS W4
Area (ha)	8.92	10.75	6.30	8.18
Runoff Coefficient	0.7	0.69	0.64	0.67
Total Imperviousness (%)	71	70	63	67
Pipe Length (m)	2028	2317	1098	1519
Pipe Dia (mm)	250	250	250	250
Perf. Pipe Length (m)	780	870	420	570
Pipe Vol. (m^3)	38.29	42.71	20.62	27.98
Trench Width (m)	1.25	1.25	1.25	1.25
Trench Height (m)	0.4	0.4	0.4	0.4
Trench Length (m)	30	30	30	30
Void Ratio	0.4	0.4	0.4	0.4
Trench Vol. (m^3)	140.68	156.92	75.75	102.81
Total Vol. (m^3)	179	200	96	131
Area of Trench (m^2)	975.00	1087.50	525.00	712.50
# of CB's	26	29	14	19
Soil Infiltration Rate (mm/hr)	9	9	9	9
Safety Factor	2.5	2.5	2.5	2.5
Reduced Rate (mm/hr)	3.6	3.6	3.6	3.6
Infiltration rate (m^3/s)	0.0010	0.0011	0.0005	0.0007

Water Budget Scenario Summary

The models were run for 36 years using hourly rainfall data from the Ottawa Airport, and the annual evaporation, infiltration and runoff volumes calculated for each scenario. Tables 2-4 summarize the annual average water balance under existing conditions and post-development conditions for the proposed development lands with and without LID measures in place, as m³/year, mm/year and % of total annual rainfall.

Table 2:Pre-Development Water Balance

Drainage Area (ha)		34.15	Imperviousness:	7%
Annual Average Volume	Precipitation	Evapotranspira-tion	Runoff	Infiltration
m³	203,451	116,566	25,635	61,251
mm	596	341	75	179
%	100%	57.3%	12.6%	30.1%

Table 3:Post Development Water Balance – Without LIDs

Drainage Area (ha)		34.15	Imperviousness:	68%
Annual Average Volume	Precipitation	Evapotranspira-tion	Runoff	Infiltration
m³	203,451	71,209	104,433	27,810
mm	596	209	306	81
%	100.0%	35.0%	51.3%	13.7%

Table 4:Post Development Water Balance – With LIDs

Drainage Area (ha)		34.15	Imperviousness:	68%
Annual Average Volume	Precipitation	Evapotranspira-tion	Runoff	Infiltration
m³	203,451	71,209	79,285	52,957
mm	596	209	232	155
%	100%	35.0%	39.0%	26.0%

Based on this analysis of pre-development conditions, this site will evaporate **57.3%**, runoff **12.6%** and infiltrate **30.1%** of all annual rainfall. Under post-development conditions without LIDs, this site will evaporate **35.0%**, runoff **51.3%** and infiltrate **13.7%** of all annual rainfall, resulting in a deficit of 98 mm/year infiltrated from pre-development conditions. Under post-development conditions with LIDs, this site will evaporate **35.0%**, runoff **39.0%** and infiltrate **26.0%** and of all annual rainfall, resulting in a deficit of 24 mm/year infiltrated from pre-development conditions. Full annual breakdowns of the three conditions have been provided in **Attachment B, Tables B1-B3**. An average annual summary of the infiltration volume for each of the proposed LID measures is outlined in **Table B4**, which shows that the LIDs alone provide a total average annual infiltration volume of **72 mm/year**.

Conclusion

A preliminary water balance analysis of the existing site was completed to determine pre-development infiltration rates, based on continuous hydrologic model simulations. A post-development analysis for the site, where no LIDs were implemented, showed that the volume of annual rainfall infiltrated would decrease by **98 mm/yr**. (**-55%** from existing). Implementing LIDs in the way of infiltration trenches connected to the catchbasins would reduce this deficit to **24 mm/year** (**-4.1%** from existing). Based on the above it has been shown that the Barrhaven Conservancy West Developments will be able to meet pre-development infiltration rates within ±5% under post-development conditions through the use of LIDs.

Yours truly,
J.F Sabourin and Associates Inc.

Jonathon Burnett, P.Eng
Water Resources Engineer

cc: J.F Sabourin, M.Eng, P.Eng
Director of Water Resources Projects

Tables

Table 1: Proposed LID Summary
Table 2: Pre-Development Water Balance
Table 3: Post Development Water Balance – Without LIDs
Table 4 Post Development Water Balance – With LIDs

Attachments

Attachment A: SWMHYMO Models & Parameters
Attachment B: Water Budget Results

Modelling Files (Provided Electronically)

SWMHYMO BCD_WEST-PRE_v02.dat
BCD_WEST-POST_v02.dat

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Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

Attachment A

SWMHYMO Models & Parameters

N

Legend

- Development Area

Soil Name (SCS Value)

- BRANDON (D)
- CARSONBY (C)

SCALE: 1:3500

0 100 200 m

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BCD Phase 3

Figure A1: Soil Types

PROJECT	1474(03)
DRAWN	JB
DATE	Dec 2021

N

Legend

- Development Area

Land Use

- Hedge Rows
- Tilled

SCALE: 1:3500

0 100 200 m

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BCD Phase 3

Figure A2: Land Use

PROJECT	1474(03)
DRAWN	JB
DATE	Dec 2022

N

Legend

- Flow Lengths
- Development Area

Terrain (m)

- 90.5
- 91
- 91.5
- 92
- 92.5
- 93
- 93.5
- 94
- 94.5

Contours (0.25m)

SCALE: 1:3500

0 100 200 m

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Figure A3: Flow Paths

PROJECT	1474(03)
DRAWN	JB
DATE	Dec 2022

N

Legend

- Drainage Areas
  - <Name>
  - <Area (ha)>
  - <Runoff Coefficient>
- Minor System

SCALE: 1:3500

0 100 200 m

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BCD Phase 3

Figure A4: Proposed Development

PROJECT	1474(03)
DRAWN	JB
DATE	Dec 2022

Table A1: Continuous Simulation Parameters

Parameter(s) & Value(s)	Description
APII=[50], APIK=[0.90]/day	Used to compute the Antecedent Precipitation Index during the continuous simulation. Without model calibration, these are the default values.
IAimp = [1.57](mm), IAper=[4.67](mm)	Default Initial Abstraction (IA) values per the City of Ottawa Design Guidelines
IaREC=[6](hrs);	The time that it takes for the Initial Abstraction over pervious areas to recover during a dry period in undeveloped areas.
SMIN=[-1], SMAX=[-1](mm)	The negative values indicate that the storage volume in the SCS procedure will vary between the "S" determined for AMC I and AMC III conditions of the entered CN value in undeveloped and urban areas.
SK=[0.03]/(mm);	A calibration coefficient that can typically vary from 0.01 to 0.3 for undeveloped and urban areas. The higher the value, the more runoff generated. To set the baseline for existing conditions, it was decided to take a value in the low range.
InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm), VhydCond=[1](mm/hr);	Parameters that are used to simulate both the groundwater storage and discharge to surface watercourses from undeveloped areas. Without adequate field measurements, these parameters were selected based on previous continuous modelling experience.
IaRECper=[6](hrs);	The time that it takes for the Initial Abstraction over pervious areas to recover during a dry period in urban areas.
IaRECimp=[1.5](hrs);	The time that it takes for the Initial Abstraction over impervious areas to recover during a dry period in urban areas.
InterEventTime=[12](hrs)	The continuous dry time is required to reset the parameters in the SCS procedure to their initial values.

Table A2: Calculation of SCS Curve Number (CN) and Modified Curve Number (CN*)

		West-A (19.67 ha)							
Name	Total Area (ha)	Area (ha)	Land Type	Soil Name	Soil Condition	Soil Group	CN	% of Catchment	Weighted CN
West-A	19.67	14.842	Tilled	BRANDON	D	Fair	84	75.5%	63.4
West-A	19.67	0.068	Hedge Rows	CARSONBY	C	Fair	70	0.3%	0.2
West-A	19.67	0.034	Hedge Rows	BRANDON	D	Fair	77	0.2%	0.1
West-A	19.67	4.726	Tilled	CARSONBY	C	Fair	79	24.0%	19.0
								CN	**82.7**
								CN*	**76**

		West-B (14.48 ha)							
Name	Total Area (ha)	Area (ha)	Land Type	Soil Name	Soil Condition	Soil Group	CN	% of Catchment	Weighted CN
West-B	14.48	1.154	Hedge Rows	CARSONBY	C	Fair	70	8.0%	5.6
West-B	14.48	9.06	Tilled	CARSONBY	C	Fair	79	62.6%	49.4
West-B	14.48	4.266	Tilled	BRANDON	D	Fair	84	29.5%	24.7
								CN	**79.8**
								CN*	**72**

Table A3: Time to Peak Calculations

Parameter	Units	West-A	West-B
Area	ha	19.67	14.48
CN*	-	76	72
Ptotal to calc C from CN, use 2	P(mm)	43.2	43.2
yr 12 hr SCS stom	Ia(mm)	4.67	4.67
	RV(mm)	12.7	10.8
C	-	0.29	0.25
Length of Channel	m	619	541
	ft	2029	1776
Elevation of Head Water	m	92.07	91.52
	ft	302	300
Elevation of Outlet	m	90.96	90.31
	ft	298	296
Average Slope	m/m	0.18%	0.22%
	ft/ft	0.18%	0.22%
Kirpich			
Time of Concentration	mins	31	26
Time to Peak	min	21	17
Time to Peak	Hours	0.35	0.29
FAA			
Time of Concentration	mins	116	106
Time to Peak	mins	77	71
Time to Peak	Hours	1.29	1.18
Barnsby Williams			
Time of Concentration	mins	37	32
Time to Peak	mins	25	21
Time to Peak	Hours	0.41	0.36
SCS			
Time of Concentration	mins	148	134
Time to Peak	mins	98	90
Time to Peak	Hours	1.64	1.49
Selected Method			
FAA			
Time to Peak	min	77	71
Time to Peak	Hours	1.29	1.18

Note:

All methods calculated as per Appendix A of the SWMHYMO manual

Time to Peak calculated as 2/3 Time of concentration

```
00001> 20     Metric units / ID Numbers OFF
00002> *#*************************************************************************************************************
00003> *#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00004> *#*************************************************************************************************************
00005> *#  Project Name: Barrhaven Conservancy Development
00006> *#  Project Number: 1474
00007> *#  Date        : 2021/Oct/18
00008> *#  Modeller    : J.Burnett, P.Eng.
00009> *#  Updated     : 2022/Dec/07 [JB]
00010> *#  Updated     : 2022/Dec/13 [LP]
00011> *#  Company     : J.F. Sabourin and Associates
00012> *#  License #   : 2582634
00013> *#*************************************************************************************************************
00014> START              TZERO=[1967.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[67]
00015> *%                  [""] <--storm filename, one per line for NSTORM time
00016> *%-----------------|-------------------------------------------------------------------------------------------
00017> *# Ottawa International Airport (1967 - 2003)
00018> READ AES DATA       AES_FILENAME=["YOW_1967_2007.123"],
00019>                     IELEM=[123], START_DATE=[0], END_DATE=[-364]
00020> *%-----------------|-------------------------------------------------------------------------------------------
00021> COMPUTE API         APII=[50], APIK=[0.90]/day
00022> *%-----------------|-------------------------------------------------------------------------------------------
00023> *#*************************************************************************************************************
00024> *#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00025> *#*************************************************************************************************************
00026> *%-----------------|-------------------------------------------------------------------------------------------
00027> CONTINUOUS NASHYD   NHYD=["West-A"], DT=[5](min), AREA=[19.67](ha)
00028>                     DWF=[0](cms),  CN/C=[76], IA=[4.67](mm), N=[3], TP=[1.29](hrs),
00029>                     Continuous simulation parameters:
00030>                       IaRECper=[6](hrs),SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs
00031>                     Baseflow simulation parameters:
00032>                       BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
00033>                       VHydCond=[1.0](mm/hr), END=-1
00034> *%-----------------|-------------------------------------------------------------------------------------------
00035> CONTINUOUS NASHYD   NHYD=["West-B"], DT=[5](min), AREA=[14.48](ha)
00036>                     DWF=[0](cms),  CN/C=[72], IA=[4.67](mm), N=[3], TP=[1.18](hrs),
00037>                     Continuous simulation parameters:
00038>                       IaRECper=[6](hrs),SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs
00039>                     Baseflow simulation parameters:
00040>                       BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
00041>                       VHydCond=[1.0](mm/hr), END=-1
00042> *%-----------------|-------------------------------------------------------------------------------------------
00043> ADD HYD             NHYDsum=["West-Total"], NHYDs to add=["West-A","West-B"]
00044> *%-----------------|-------------------------------------------------------------------------------------------
00045> *#*************************************************************************************************************
00046> *#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITION
00047> *#*************************************************************************************************************
00048> *#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00049> *#*************************************************************************************************************
00050> CONTINUOUS NASHYD   NHYD=["INF-West-A"], DT=[5](min), AREA=[19.67](ha)
00051>                     DWF=[0](cms),  CN/C=[99.99], IA=[4.67](mm), N=[3], TP=[1.29](hrs),
00052>                     Continuous simulation parameters:
00053>                       IaRECper=[6](hrs),SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs
00054>                     Baseflow simulation parameters:
00055>                       BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
00056>                       VHydCond=[1.0](mm/hr), END=-1
00057> *%-----------------|-------------------------------------------------------------------------------------------
00058> CONTINUOUS NASHYD   NHYD=["INF-West-B"], DT=[5](min), AREA=[14.48](ha)
00059>                     DWF=[0](cms),  CN/C=[99.99], IA=[4.67](mm), N=[3], TP=[1.18](hrs),
00060>                     Continuous simulation parameters:
00061>                       IaRECper=[6](hrs),SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs
00062>                     Baseflow simulation parameters:
00063>                       BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
00064>                       VHydCond=[1.0](mm/hr), END=-1
00065> *%-----------------|-------------------------------------------------------------------------------------------
00066> ADD HYD             NHYDsum=["INF-West-Total"], NHYDs to add=["INF-West-A","INF-West-B"]
00067> *%-----------------|-------------------------------------------------------------------------------------------
00068> *%-----------------|-------------------------------------------------------------------------------------------
00069> *#########################################################################
00070> *# CONTINUOUS RAINFALL DATA
00071> *#########################################################################
00072> *%-----------------|-------------------------------------------------------------------------------------------
00073> *%-----------------|-------------------------------------------------------------------------------------------
00074> START              TZERO=[1968.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[68]
00075> *%-----------------|-------------------------------------------------------------------------------------------
00076> START              TZERO=[1969.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[69]
00077> *%-----------------|-------------------------------------------------------------------------------------------
00078> START              TZERO=[1970.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[70]
00079> *%-----------------|-------------------------------------------------------------------------------------------
00080> START              TZERO=[1971.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[71]
00081> *%-----------------|-------------------------------------------------------------------------------------------
00082> START              TZERO=[1972.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[72]
00083> *%-----------------|-------------------------------------------------------------------------------------------
00084> START              TZERO=[1973.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[73]
00085> *%-----------------|-------------------------------------------------------------------------------------------
00086> START              TZERO=[1974.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[74]
00087> *%-----------------|-------------------------------------------------------------------------------------------
00088> START              TZERO=[1975.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[75]
00089> *%-----------------|-------------------------------------------------------------------------------------------
```

```
00090> START               TZERO=[1976.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[76]
00091> *%-----------------|-------------------------------------------------------------------------------------
00092> START               TZERO=[1977.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[77]
00093> *%-----------------|-------------------------------------------------------------------------------------
00094> START               TZERO=[1978.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[78]
00095> *%-----------------|-------------------------------------------------------------------------------------
00096> START               TZERO=[1979.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[79]
00097> *%-----------------|-------------------------------------------------------------------------------------
00098> START               TZERO=[1980.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[80]
00099> *%-----------------|-------------------------------------------------------------------------------------
00100> START               TZERO=[1981.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[81]
00101> *%-----------------|-------------------------------------------------------------------------------------
00102> START               TZERO=[1982.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[82]
00103> *%-----------------|-------------------------------------------------------------------------------------
00104> START               TZERO=[1983.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[83]
00105> *%-----------------|-------------------------------------------------------------------------------------
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00107> *%-----------------|-------------------------------------------------------------------------------------
00108> START               TZERO=[1985.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[85]
00109> *%-----------------|-------------------------------------------------------------------------------------
00110> START               TZERO=[1986.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[86]
00111> *%-----------------|-------------------------------------------------------------------------------------
00112> START               TZERO=[1987.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[87]
00113> *%-----------------|-------------------------------------------------------------------------------------
00114> START               TZERO=[1988.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[88]
00115> *%-----------------|-------------------------------------------------------------------------------------
00116> START               TZERO=[1989.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[89]
00117> *%-----------------|-------------------------------------------------------------------------------------
00118> START               TZERO=[1990.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[90]
00119> *%-----------------|-------------------------------------------------------------------------------------
00120> START               TZERO=[1991.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[91]
00121> *%-----------------|-------------------------------------------------------------------------------------
00122> START               TZERO=[1992.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[92]
00123> *%-----------------|-------------------------------------------------------------------------------------
00124> START               TZERO=[1993.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[93]
00125> *%-----------------|-------------------------------------------------------------------------------------
00126> START               TZERO=[1994.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[94]
00127> *%-----------------|-------------------------------------------------------------------------------------
00128> START               TZERO=[1995.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[95]
00129> *%-----------------|-------------------------------------------------------------------------------------
00130> START               TZERO=[1996.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[96]
00131> *%-----------------|-------------------------------------------------------------------------------------
00132> START               TZERO=[1997.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[97]
00133> *%-----------------|-------------------------------------------------------------------------------------
00134> START               TZERO=[1998.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[98]
00135> *%-----------------|-------------------------------------------------------------------------------------
00136> START               TZERO=[1999.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[99]
00137> *%-----------------|-------------------------------------------------------------------------------------
00138> START               TZERO=[2000.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[100]
00139> *%-----------------|-------------------------------------------------------------------------------------
00140> *% MISSING FROM AES RAINFALL DATA
00141> *%START               TZERO=[2001.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[101]
00142> *%-----------------|-------------------------------------------------------------------------------------
00143> START               TZERO=[2002.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[102]
00144> *%-----------------|-------------------------------------------------------------------------------------
00145> START               TZERO=[2003.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[103]
00146> *%-----------------|-------------------------------------------------------------------------------------
00147> FINISH
```

```
 ==========================================================================================

 SSSSS   W   W   M   M   H   H   Y   Y   M   M    OOO          222     000    11   5555   =========
 S       W W W   MM MM   H   H    Y Y    MM MM   O   O           2    0   0   11   5
 SSSSS   W W W   M M M   HHHHH     Y     M M M   O   O           2    0   0   11   5      Ver 5.500
     S    W W    M   M   H   H     Y     M   M   O   O        222     0   0   11   555    FEB  2015
 SSSSS    W W    M   M   H   H     Y     M   M    OOO         2       0   0   11      5   =========
                                                              2       0   0   11      5   # 2549237
       StormWater Management HYdrologic Model                  222     000    11   555    =========

 ******************************************************************************************
 *************************************  SWMHYMO Ver 5.500  ***************************************
 ******************  A single event and continuous hydrologic simulation model  *******************
 ******************     based on the principles of HYMO and its successors      *******************
 ******************                OTTHYMO-83 and OTTHYMO-89.                   *******************
 ******************************************************************************************
 ****************** Distributed by:  J.F. Sabourin and Associates Inc.          *******************
 ******************                  Ottawa,  Ontario: (613) 836-3884           *******************
 ******************                  Gatineau, Quebec: (819) 243-6858           *******************
 ******************                  E-Mail: swmhymo@jfsa.Com                   *******************
 ******************************************************************************************

 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 +++++++++++++++++++ Licensed user: JFSAinc.                                  +++++++++++++++++++
 +++++++++++++++++++                Ottawa                SERIAL#:2549237       +++++++++++++++++++
 ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

 ******************************************************************************************
 ******************           ++++++ PROGRAM ARRAY DIMENSIONS ++++++            *******************
 ******************           Maximum value for ID numbers  :     11            *******************
 ******************           Max. number of rainfall points: 105408            *******************
 ******************           Max. number of flow points    : 105408            *******************
 ******************************************************************************************


 ********************************   S U M M A R Y   O U T P U T   ********************************
 ******************************************************************************************
 *                 RUN DATE: 2022-12-13     TIME: 12:43:36     RUN COUNTER: 004324                *
 ******************************************************************************************
 * Input   file: C:\Users\lpipk\Desktop\20221213-Pre-Dev\BCD_WEST-PRE_v02.dat                    *
 * Output  file: C:\Users\lpipk\Desktop\20221213-Pre-Dev\BCD_WEST-PRE_v02.out                    *
 * Summary file: C:\Users\lpipk\Desktop\20221213-Pre-Dev\BCD_WEST-PRE_v02.sum                    *
 * User comments:                                                                                *
 * 1:_____________________________________________________________________________________________*
 * 2:_____________________________________________________________________________________________*
 * 3:_____________________________________________________________________________________________*
 ******************************************************************************************


#*****************************************************************************************************
#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
#*****************************************************************************************************
#  Project Name: Barrhaven Conservancy Development
#  Project Number: 1474
#  Date        : 2021/Oct/18
#  Modeller    : J.Burnett, P.Eng.
#  Updated     : 2022/Dec/07 [JB]
#  Updated     : 2022/Dec/13 [LP]
#  Company     : J.F. Sabourin and Associates
#  License #   : 2582634
#*****************************************************************************************************
  ** END OF RUN :   66

*****************************************************************************************




 RUN#:COMMAND#
R0067:C00001-----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19670101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0067 ]
#*****************************************************************************************************
#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
#*****************************************************************************************************
#  Project Name: Barrhaven Conservancy Development
#  Project Number: 1474
#  Date        : 2021/Oct/18
#  Modeller    : J.Burnett, P.Eng.
#  Updated     : 2022/Dec/07 [JB]
#  Updated     : 2022/Dec/13 [LP]
#  Company     : J.F. Sabourin and Associates
#  License #   : 2582634
#*****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
```

```
00090> R0067:C00002-------------------------------------------------------------------------------------------
00091>   *  READ AES DATA
00092>       [Filename  = YOW_1967_2007.123                                          ]
00093>       [Start_date= 1967.0101: End_date= 1967.1231]
00094>       {DT= 60.min: Length= 3984.hrs: WetHrs=  257: DryHrs= 3727: PTOT= 386.90}
00095>       Maximum average rainfall intensities over
00096>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00097>        24.60    17.65    13.20     7.25     3.83     2.36     1.73     1.32      .90    mm/hr
00098>        24.60    35.30    39.60    43.50    46.00    56.60    62.30    63.20    64.90    mm
00099>       19670921 19670921 19670921 19670921 19670921 19670922 19670922 19670923 19670924  date
00100>       Number of rainfall events per following interevent time
00101>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00102>           80       65       56       40       32       29       24       20       18
00103>       Number of events with at least the following durations
00104>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00105>           79       42       29       14        3        0        0        0        0
00106> R0067:C00003-------------------------------------------------------------------------------------------
00107>      COMPUTE API
00108>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00109>       {APImax= 76.77: APIavg= 24.81: APImin=  3.06}
00110> #*************************************************************************************************************
00111> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00112> #*************************************************************************************************************
00113> R0067:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00114>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .214 1967.0921_19:10   70.91 .183     .000
00115>       [CN= 76.0: N= 3.00: Tp= 1.29]
00116>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00117>       [InterEventTime=  12.00]
00118> R0067:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00119>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .143 1967.0921_18:55   63.09 .163     .000
00120>       [CN= 72.0: N= 3.00: Tp= 1.18]
00121>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00122>       [InterEventTime=  12.00]
00123> R0067:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00124>     ADD HYD               5.0 02:West-A        19.67     .214 1967.0921_19:10   70.91  n/a     .000
00125>                    +      5.0 02:West-B        14.48     .143 1967.0921_18:55   63.09  n/a     .000
00126>                  SUM=     5.0 01:West-Total    34.15     .356 1967.0921_19:05   67.59  n/a     .000
00127> #*************************************************************************************************************
00128> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00129> #*************************************************************************************************************
00130> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00131> #*************************************************************************************************************
00132> R0067:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00133>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .580 1967.0921_18:30  190.21 .492     .000
00134>       [CN=100.0: N= 3.00: Tp= 1.29]
00135>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00136>       [InterEventTime=  12.00]
00137> R0067:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00138>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .450 1967.0921_18:25  190.21 .492     .000
00139>       [CN=100.0: N= 3.00: Tp= 1.18]
00140>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00141>       [InterEventTime=  12.00]
00142> R0067:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00143>     ADD HYD               5.0 02:INF-West-A    19.67     .580 1967.0921_18:30  190.21  n/a     .000
00144>                    +      5.0 02:INF-West-B    14.48     .450 1967.0921_18:25  190.21  n/a     .000
00145>                  SUM=     5.0 01:INF-West-T    34.15    1.028 1967.0921_18:30  190.21  n/a     .000
00146> ###########################################################################
00147> # CONTINUOUS RAINFALL DATA
00148> ###########################################################################
00149>   ** END OF RUN :   67
00150>
00151> *************************************************************************************************************
00152>
00153>
00154>
00155>
00156>
00157>  RUN#:COMMAND#
00158> R0068:C00001-------------------------------------------------------------------------------------------
00159>      START
00160>       [TZERO =    .00 hrs on 19680101]
00161>       [METOUT=   2    (1=imperial, 2=metric output)]
00162>       [NSTORM=   0 ]
00163>       [NRUN  = 0068 ]
00164> #*************************************************************************************************************
00165> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00166> #*************************************************************************************************************
00167> #  Project Name: Barrhaven Conservancy Development
00168> #  Project Number: 1474
00169> #  Date        : 2021/Oct/18
00170> #  Modeller    : J.Burnett, P.Eng.
00171> #  Updated     : 2022/Dec/07 [JB]
00172> #  Updated     : 2022/Dec/13 [LP]
00173> #  Company     : J.F. Sabourin and Associates
00174> #  License #   : 2582634
00175> #*************************************************************************************************************
00176> # Ottawa International Airport (1967 - 2003)
00177> R0068:C00002-------------------------------------------------------------------------------------------
00178>   *  READ AES DATA
```

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00179>       [Filename  = YOW_1967_2007.123                                          ]
00180>       [Start_date= 1968.0101: End_date= 1968.1230]
00181>       {DT= 60.min: Length= 8760.hrs: WetHrs=  413: DryHrs= 8347: PTOT= 592.80}
00182>       Maximum average rainfall intensities over
00183>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00184>        33.30    17.05    11.37     6.23     3.74     1.87     1.26      .95      .70    mm/hr
00185>        33.30    34.10    34.10    37.40    44.90    44.90    45.40    45.40    50.20    mm
00186>       19680817 19680817 19680817 19680808 19680817 19680818 19680817 19680808 19680820  date
00187>       Number of rainfall events per following interevent time
00188>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00189>          137      105       93       84       72       63       48       43       36
00190>       Number of events with at least the following durations
00191>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00192>          136       76       49       18        5        0        0        0        0
00193> R0068:C00003-------------------------------------------------------------------------------------------
00194>      COMPUTE API
00195>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00196>       {APImax= 67.52: APIavg= 16.74: APImin=   .27}
00197> #*************************************************************************************************************
00198> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00199> #*************************************************************************************************************
00200> R0068:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00201>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .213 1968.0817_ 6:05   77.11 .130     .000
00202>       [CN= 76.0: N= 3.00: Tp= 1.29]
00203>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00204>       [InterEventTime=  12.00]
00205> R0068:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00206>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .149 1968.0817_ 6:00   67.82 .114     .000
00207>       [CN= 72.0: N= 3.00: Tp= 1.18]
00208>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00209>       [InterEventTime=  12.00]
00210> R0068:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00211>     ADD HYD               5.0 02:West-A        19.67     .213 1968.0817_ 6:05   77.11  n/a     .000
00212>                      +     5.0 02:West-B        14.48     .149 1968.0817_ 6:00   67.82  n/a     .000
00213>                   SUM=     5.0 01:West-Total    34.15     .361 1968.0817_ 6:00   73.17  n/a     .000
00214> #*************************************************************************************************************
00215> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00216> #*************************************************************************************************************
00217> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00218> #*************************************************************************************************************
00219> R0068:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00220>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .597 1968.0817_ 5:55  257.40 .434     .000
00221>       [CN=100.0: N= 3.00: Tp= 1.29]
00222>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00223>       [InterEventTime=  12.00]
00224> R0068:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00225>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .477 1968.0817_ 5:50  257.40 .434     .000
00226>       [CN=100.0: N= 3.00: Tp= 1.18]
00227>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00228>       [InterEventTime=  12.00]
00229> R0068:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00230>     ADD HYD               5.0 02:INF-West-A    19.67     .597 1968.0817_ 5:55  257.40  n/a     .000
00231>                      +     5.0 02:INF-West-B    14.48     .477 1968.0817_ 5:50  257.40  n/a     .000
00232>                   SUM=     5.0 01:INF-West-T    34.15    1.072 1968.0817_ 5:50  257.40  n/a     .000
00233> ###########################################################################
00234> # CONTINUOUS RAINFALL DATA
00235> ###########################################################################
00236>   ** END OF RUN :   68
00237>
00238> *****************************************************************************************************
00239>
00240>
00241>
00242>
00243>
00244>  RUN#:COMMAND#
00245> R0069:C00001-------------------------------------------------------------------------------------------
00246>      START
00247>       [TZERO =    .00 hrs on 19690101]
00248>       [METOUT=   2    (1=imperial, 2=metric output)]
00249>       [NSTORM=   0 ]
00250>       [NRUN  = 0069 ]
00251> #*************************************************************************************************************
00252> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00253> #*************************************************************************************************************
00254> #  Project Name: Barrhaven Conservancy Development
00255> #  Project Number: 1474
00256> #  Date        : 2021/Oct/18
00257> #  Modeller    : J.Burnett, P.Eng.
00258> #  Updated     : 2022/Dec/07 [JB]
00259> #  Updated     : 2022/Dec/13 [LP]
00260> #  Company     : J.F. Sabourin and Associates
00261> #  License #   : 2582634
00262> #*************************************************************************************************************
00263> # Ottawa International Airport (1967 - 2003)
00264> R0069:C00002-------------------------------------------------------------------------------------------
00265>   *  READ AES DATA
00266>       [Filename  = YOW_1967_2007.123                                          ]
00267>       [Start_date= 1969.0101: End_date= 1969.1231]
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00268>       {DT= 60.min: Length= 8760.hrs: WetHrs=  470: DryHrs= 8290: PTOT= 570.30}
00269>       Maximum average rainfall intensities over
00270>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00271>        21.10    16.25    10.83     7.78     3.93     2.10     1.40     1.09      .75    mm/hr
00272>        21.10    32.50    32.50    46.70    47.20    50.30    50.30    52.10    54.00    mm
00273>       19690818 19690818 19690818 19690819 19690819 19690819 19690819 19690819 19690819  date
00274>       Number of rainfall events per following interevent time
00275>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00276>          157      119      107       92       72       58       49       43       32
00277>       Number of events with at least the following durations
00278>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00279>          156       84       58       21        5        0        0        0        0
00280> R0069:C00003------------------------------------------------------------------------------------------
00281>      COMPUTE API
00282>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00283>       {APImax= 56.77: APIavg= 16.06: APImin=   .06}
00284> #*************************************************************************************************
00285> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00286> #*************************************************************************************************
00287> R0069:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00288>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .189 1969.0819_ 3:00   63.40 .111     .000
00289>       [CN= 76.0: N= 3.00: Tp= 1.29]
00290>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00291>       [InterEventTime=  12.00]
00292> R0069:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00293>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .134 1969.0819_ 2:55   55.35 .097     .000
00294>       [CN= 72.0: N= 3.00: Tp= 1.18]
00295>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00296>       [InterEventTime=  12.00]
00297> R0069:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00298>     ADD HYD               5.0 02:West-A        19.67     .189 1969.0819_ 3:00   63.40  n/a     .000
00299>                       +     5.0 02:West-B        14.48     .134 1969.0819_ 2:55   55.35  n/a     .000
00300>                   SUM=      5.0 01:West-Total    34.15     .322 1969.0819_ 2:55   59.99  n/a     .000
00301> #*************************************************************************************************
00302> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00303> #*************************************************************************************************
00304> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00305> #*************************************************************************************************
00306> R0069:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00307>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .522 1969.0818_22:45  233.70 .410     .000
00308>       [CN=100.0: N= 3.00: Tp= 1.29]
00309>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00310>       [InterEventTime=  12.00]
00311> R0069:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00312>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .415 1969.0818_22:40  233.70 .410     .000
00313>       [CN=100.0: N= 3.00: Tp= 1.18]
00314>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00315>       [InterEventTime=  12.00]
00316> R0069:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00317>     ADD HYD               5.0 02:INF-West-A    19.67     .522 1969.0818_22:45  233.70  n/a     .000
00318>                       +     5.0 02:INF-West-B    14.48     .415 1969.0818_22:40  233.70  n/a     .000
00319>                   SUM=      5.0 01:INF-West-T    34.15     .936 1969.0818_22:45  233.70  n/a     .000
00320> ##########################################################################
00321> # CONTINUOUS RAINFALL DATA
00322> ##########################################################################
00323>   ** END OF RUN :   69
00324>
00325> ***************************************************************************************
00326>
00327>
00328>
00329>
00330>
00331>  RUN#:COMMAND#
00332> R0070:C00001------------------------------------------------------------------------------------------
00333>      START
00334>       [TZERO =    .00 hrs on 19700101]
00335>       [METOUT=   2    (1=imperial, 2=metric output)]
00336>       [NSTORM=   0 ]
00337>       [NRUN  = 0070 ]
00338> #*************************************************************************************************
00339> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00340> #*************************************************************************************************
00341> #  Project Name: Barrhaven Conservancy Development
00342> #  Project Number: 1474
00343> #  Date         : 2021/Oct/18
00344> #  Modeller     : J.Burnett, P.Eng.
00345> #  Updated      : 2022/Dec/07 [JB]
00346> #  Updated      : 2022/Dec/13 [LP]
00347> #  Company      : J.F. Sabourin and Associates
00348> #  License #    : 2582634
00349> #*************************************************************************************************
00350> # Ottawa International Airport (1967 - 2003)
00351> R0070:C00002------------------------------------------------------------------------------------------
00352>   *  READ AES DATA
00353>       [Filename  = YOW_1967_2007.123                                          ]
00354>       [Start_date= 1970.0101: End_date= 1970.1231]
00355>       {DT= 60.min: Length= 8760.hrs: WetHrs=  373: DryHrs= 8387: PTOT= 558.90}
00356>       Maximum average rainfall intensities over
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00357>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00358>        35.30    18.30    12.20     6.10     3.63     1.81     1.21     1.46      .99    mm/hr
00359>        35.30    36.60    36.60    36.60    43.50    43.50    43.50    69.90    71.20    mm
00360>       19700926 19700926 19700926 19700927 19700817 19700817 19700818 19700926 19700927  date
00361>       Number of rainfall events per following interevent time
00362>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00363>          148      127      109       84       72       60       54       41       30
00364>       Number of events with at least the following durations
00365>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00366>          147       79       40       15        3        0        0        0        0
00367> R0070:C00003---------------------------------------------------------------------------------------------
00368>      COMPUTE API
00369>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00370>       {APImax= 76.00: APIavg= 15.84: APImin=   .07}
00371> #*************************************************************************************************************
00372> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00373> #*************************************************************************************************************
00374> R0070:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00375>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .270 1970.0926_22:05   60.26 .108     .000
00376>       [CN= 76.0: N= 3.00: Tp= 1.29]
00377>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00378>       [InterEventTime=  12.00]
00379> R0070:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00380>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .190 1970.0926_22:00   52.85 .095     .000
00381>       [CN= 72.0: N= 3.00: Tp= 1.18]
00382>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00383>       [InterEventTime=  12.00]
00384> R0070:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00385>     ADD HYD               5.0 02:West-A        19.67     .270 1970.0926_22:05   60.26  n/a     .000
00386>                      +    5.0 02:West-B        14.48     .190 1970.0926_22:00   52.85  n/a     .000
00387>                   SUM=    5.0 01:West-Total    34.15     .459 1970.0926_22:05   57.12  n/a     .000
00388> #*************************************************************************************************************
00389> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00390> #*************************************************************************************************************
00391> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00392> #*************************************************************************************************************
00393> R0070:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00394>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .647 1970.0926_21:55  222.47 .398     .000
00395>       [CN=100.0: N= 3.00: Tp= 1.29]
00396>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00397>       [InterEventTime=  12.00]
00398> R0070:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00399>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .516 1970.0926_21:50  222.47 .398     .000
00400>       [CN=100.0: N= 3.00: Tp= 1.18]
00401>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00402>       [InterEventTime=  12.00]
00403> R0070:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00404>     ADD HYD               5.0 02:INF-West-A    19.67     .647 1970.0926_21:55  222.47  n/a     .000
00405>                      +    5.0 02:INF-West-B    14.48     .516 1970.0926_21:50  222.47  n/a     .000
00406>                   SUM=    5.0 01:INF-West-T    34.15    1.161 1970.0926_21:55  222.47  n/a     .000
00407> ###########################################################################
00408> # CONTINUOUS RAINFALL DATA
00409> ###########################################################################
00410>   ** END OF RUN :   70
00411>
00412> *****************************************************************************************************
00413>
00414>
00415>
00416>
00417>
00418>  RUN#:COMMAND#
00419> R0071:C00001---------------------------------------------------------------------------------------------
00420>      START
00421>       [TZERO =    .00 hrs on 19710101]
00422>       [METOUT=   2    (1=imperial, 2=metric output)]
00423>       [NSTORM=   0 ]
00424>       [NRUN  = 0071 ]
00425> #*************************************************************************************************************
00426> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00427> #*************************************************************************************************************
00428> #  Project Name: Barrhaven Conservancy Development
00429> #  Project Number: 1474
00430> #  Date         : 2021/Oct/18
00431> #  Modeller     : J.Burnett, P.Eng.
00432> #  Updated      : 2022/Dec/07 [JB]
00433> #  Updated      : 2022/Dec/13 [LP]
00434> #  Company      : J.F. Sabourin and Associates
00435> #  License #    : 2582634
00436> #*************************************************************************************************************
00437> # Ottawa International Airport (1967 - 2003)
00438> R0071:C00002---------------------------------------------------------------------------------------------
00439>   *  READ AES DATA
00440>       [Filename  = YOW_1967_2007.123                                          ]
00441>       [Start_date= 1971.0101: End_date= 1971.1231]
00442>       {DT= 60.min: Length= 8760.hrs: WetHrs=  412: DryHrs= 8348: PTOT= 522.10}
00443>       Maximum average rainfall intensities over
00444>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00445>        24.60    16.60    11.67     6.13     3.09     1.56     1.06      .79      .54    mm/hr
```

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00446>        24.60    33.20    35.00    36.80    37.10    37.40    38.00    38.00    38.90    mm
00447>       19710810 19710810 19710810 19710810 19710810 19710810 19710810 19710811 19710812 19710830  date
00448>       Number of rainfall events per following interevent time
00449>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00450>          156      123      113       93       72       61       52       42       33
00451>       Number of events with at least the following durations
00452>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00453>          155       81       59       21        2        0        0        0        0
00454> R0071:C00003-------------------------------------------------------------------------------------
00455>      COMPUTE API
00456>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00457>       {APImax= 62.22: APIavg= 14.84: APImin=   .36}
00458> #*************************************************************************************************
00459> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00460> #*************************************************************************************************
00461> R0071:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00462>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .204 1971.0810_16:35   45.48 .087     .000
00463>       [CN= 76.0: N= 3.00: Tp= 1.29]
00464>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00465>       [InterEventTime=  12.00]
00466> R0071:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00467>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .139 1971.0810_16:30   39.74 .076     .000
00468>       [CN= 72.0: N= 3.00: Tp= 1.18]
00469>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00470>       [InterEventTime=  12.00]
00471> R0071:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00472>     ADD HYD               5.0 02:West-A        19.67     .204 1971.0810_16:35   45.48  n/a     .000
00473>                       +     5.0 02:West-B        14.48     .139 1971.0810_16:30   39.74  n/a     .000
00474>                   SUM=      5.0 01:West-Total    34.15     .342 1971.0810_16:35   43.04  n/a     .000
00475> #*************************************************************************************************
00476> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00477> #*************************************************************************************************
00478> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00479> #*************************************************************************************************
00480> R0071:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00481>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .575 1971.0810_16:20  181.82 .348     .000
00482>       [CN=100.0: N= 3.00: Tp= 1.29]
00483>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00484>       [InterEventTime=  12.00]
00485> R0071:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00486>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .450 1971.0810_16:10  181.82 .348     .000
00487>       [CN=100.0: N= 3.00: Tp= 1.18]
00488>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00489>       [InterEventTime=  12.00]
00490> R0071:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00491>     ADD HYD               5.0 02:INF-West-A    19.67     .575 1971.0810_16:20  181.82  n/a     .000
00492>                       +     5.0 02:INF-West-B    14.48     .450 1971.0810_16:10  181.82  n/a     .000
00493>                   SUM=      5.0 01:INF-West-T    34.15    1.024 1971.0810_16:15  181.82  n/a     .000
00494> ###########################################################################
00495> # CONTINUOUS RAINFALL DATA
00496> ###########################################################################
00497>   ** END OF RUN :   71
00498>
00499> *************************************************************************************************
00500>
00501>
00502>
00503>
00504>
00505>  RUN#:COMMAND#
00506> R0072:C00001-------------------------------------------------------------------------------------
00507>      START
00508>       [TZERO =    .00 hrs on 19720101]
00509>       [METOUT=   2    (1=imperial, 2=metric output)]
00510>       [NSTORM=   0 ]
00511>       [NRUN  = 0072 ]
00512> #*************************************************************************************************
00513> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00514> #*************************************************************************************************
00515> #  Project Name: Barrhaven Conservancy Development
00516> #  Project Number: 1474
00517> #  Date        : 2021/Oct/18
00518> #  Modeller    : J.Burnett, P.Eng.
00519> #  Updated     : 2022/Dec/07 [JB]
00520> #  Updated     : 2022/Dec/13 [LP]
00521> #  Company     : J.F. Sabourin and Associates
00522> #  License #   : 2582634
00523> #*************************************************************************************************
00524> # Ottawa International Airport (1967 - 2003)
00525> R0072:C00002-------------------------------------------------------------------------------------
00526>   *  READ AES DATA
00527>       [Filename  = YOW_1967_2007.123                                    ]
00528>       [Start_date= 1972.0101: End_date= 1972.1230]
00529>       {DT= 60.min: Length= 8760.hrs: WetHrs=  489: DryHrs= 8271: PTOT= 784.30}
00530>       Maximum average rainfall intensities over
00531>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00532>        37.30    19.15    12.97     8.15     4.50     2.53     2.00     1.71     1.17    mm/hr
00533>        37.30    38.30    38.90    48.90    54.00    60.70    72.10    82.20    84.20    mm
00534>       19720712 19720712 19720807 19720808 19720808 19720808 19720713 19720714 19720715  date
```

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00535>       Number of rainfall events per following interevent time
00536>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00537>          170      133      122       86       76       60       45       41       31
00538>       Number of events with at least the following durations
00539>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00540>          169       96       58       21        5        0        0        0        0
00541> R0072:C00003---------------------------------------------------------------------------------
00542>      COMPUTE API
00543>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00544>       {APImax=108.88: APIavg= 21.70: APImin=   .00}
00545> #*********************************************************************************************
00546> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00547> #*********************************************************************************************
00548> R0072:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00549>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .385 1972.0807_23:55  136.80 .174     .000
00550>       [CN= 76.0: N= 3.00: Tp= 1.29]
00551>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00552>       [InterEventTime=  12.00]
00553> R0072:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00554>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .274 1972.0807_23:50  121.97 .156     .000
00555>       [CN= 72.0: N= 3.00: Tp= 1.18]
00556>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00557>       [InterEventTime=  12.00]
00558> R0072:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00559>     ADD HYD               5.0 02:West-A        19.67     .385 1972.0807_23:55  136.80  n/a     .000
00560>                       +     5.0 02:West-B        14.48     .274 1972.0807_23:50  121.97  n/a     .000
00561>                   SUM=      5.0 01:West-Total    34.15     .659 1972.0807_23:50  130.51  n/a     .000
00562> #*********************************************************************************************
00563> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00564> #*********************************************************************************************
00565> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00566> #*********************************************************************************************
00567> R0072:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00568>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .729 1972.0807_23:40  375.41 .479     .000
00569>       [CN=100.0: N= 3.00: Tp= 1.29]
00570>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00571>       [InterEventTime=  12.00]
00572> R0072:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00573>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .573 1972.0807_23:35  375.41 .479     .000
00574>       [CN=100.0: N= 3.00: Tp= 1.18]
00575>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00576>       [InterEventTime=  12.00]
00577> R0072:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00578>     ADD HYD               5.0 02:INF-West-A    19.67     .729 1972.0807_23:40  375.41  n/a     .000
00579>                       +     5.0 02:INF-West-B    14.48     .573 1972.0807_23:35  375.41  n/a     .000
00580>                   SUM=      5.0 01:INF-West-T    34.15    1.301 1972.0807_23:40  375.41  n/a     .000
00581> ###############################################################################
00582> # CONTINUOUS RAINFALL DATA
00583> ###############################################################################
00584>   ** END OF RUN :   72
00585>
00586> *********************************************************************************************
00587>
00588>
00589>
00590>
00591>
00592>  RUN#:COMMAND#
00593> R0073:C00001---------------------------------------------------------------------------------
00594>      START
00595>       [TZERO =    .00 hrs on 19730101]
00596>       [METOUT=   2    (1=imperial, 2=metric output)]
00597>       [NSTORM=   0 ]
00598>       [NRUN  = 0073 ]
00599> #*********************************************************************************************
00600> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00601> #*********************************************************************************************
00602> #  Project Name: Barrhaven Conservancy Development
00603> #  Project Number: 1474
00604> #  Date        : 2021/Oct/18
00605> #  Modeller    : J.Burnett, P.Eng.
00606> #  Updated     : 2022/Dec/07 [JB]
00607> #  Updated     : 2022/Dec/13 [LP]
00608> #  Company     : J.F. Sabourin and Associates
00609> #  License #   : 2582634
00610> #*********************************************************************************************
00611> # Ottawa International Airport (1967 - 2003)
00612> R0073:C00002---------------------------------------------------------------------------------
00613>   *  READ AES DATA
00614>       [Filename  = YOW_1967_2007.123                                          ]
00615>       [Start_date= 1973.0101: End_date= 1973.1231]
00616>       {DT= 60.min: Length= 8760.hrs: WetHrs=  549: DryHrs= 8211: PTOT= 744.90}
00617>       Maximum average rainfall intensities over
00618>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00619>        30.00    17.25    12.33     7.10     3.63     1.89     1.28      .96      .96    mm/hr
00620>        30.00    34.50    37.00    42.60    43.60    45.40    46.00    46.00    69.20    mm
00621>       19730611 19730808 19730808 19730808 19730808 19730616 19730616 19730616 19731005  date
00622>       Number of rainfall events per following interevent time
00623>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
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00624>          200      164      143      108       79       61       54       43       37
00625>       Number of events with at least the following durations
00626>         1 hr     2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00627>          200      102       66       20        4        0        0        0        0
00628> R0073:C00003-------------------------------------------------------------------------------------
00629>      COMPUTE API
00630>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00631>       {APImax= 78.26: APIavg= 20.56: APImin=   .06}
00632> #*************************************************************************************************
00633> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00634> #*************************************************************************************************
00635> R0073:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00636>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .322 1973.0808_21:00  101.49 .136     .000
00637>       [CN= 76.0: N= 3.00: Tp= 1.29]
00638>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00639>       [InterEventTime=  12.00]
00640> R0073:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00641>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .225 1973.0808_20:55   89.43 .120     .000
00642>       [CN= 72.0: N= 3.00: Tp= 1.18]
00643>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00644>       [InterEventTime=  12.00]
00645> R0073:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00646>     ADD HYD               5.0 02:West-A        19.67     .322 1973.0808_21:00  101.49  n/a     .000
00647>                       +     5.0 02:West-B        14.48     .225 1973.0808_20:55   89.43  n/a     .000
00648>                     SUM=    5.0 01:West-Total    34.15     .546 1973.0808_20:55   96.37  n/a     .000
00649> #*************************************************************************************************
00650> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00651> #*************************************************************************************************
00652> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00653> #*************************************************************************************************
00654> R0073:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00655>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .712 1973.0808_20:45  337.66 .453     .000
00656>       [CN=100.0: N= 3.00: Tp= 1.29]
00657>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00658>       [InterEventTime=  12.00]
00659> R0073:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00660>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .560 1973.0808_20:40  337.66 .453     .000
00661>       [CN=100.0: N= 3.00: Tp= 1.18]
00662>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00663>       [InterEventTime=  12.00]
00664> R0073:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00665>     ADD HYD               5.0 02:INF-West-A    19.67     .712 1973.0808_20:45  337.66  n/a     .000
00666>                       +     5.0 02:INF-West-B    14.48     .560 1973.0808_20:40  337.66  n/a     .000
00667>                     SUM=    5.0 01:INF-West-T    34.15    1.270 1973.0808_20:40  337.66  n/a     .000
00668> ###########################################################################
00669> # CONTINUOUS RAINFALL DATA
00670> ###########################################################################
00671>   ** END OF RUN :   73
00672>
00673> *************************************************************************************************
00674>
00675>
00676>
00677>
00678>
00679>  RUN#:COMMAND#
00680> R0074:C00001-------------------------------------------------------------------------------------
00681>      START
00682>       [TZERO =    .00 hrs on 19740101]
00683>       [METOUT=   2    (1=imperial, 2=metric output)]
00684>       [NSTORM=   0 ]
00685>       [NRUN  = 0074 ]
00686> #*************************************************************************************************
00687> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00688> #*************************************************************************************************
00689> #  Project Name: Barrhaven Conservancy Development
00690> #  Project Number: 1474
00691> #  Date        : 2021/Oct/18
00692> #  Modeller    : J.Burnett, P.Eng.
00693> #  Updated     : 2022/Dec/07 [JB]
00694> #  Updated     : 2022/Dec/13 [LP]
00695> #  Company     : J.F. Sabourin and Associates
00696> #  License #   : 2582634
00697> #*************************************************************************************************
00698> # Ottawa International Airport (1967 - 2003)
00699> R0074:C00002-------------------------------------------------------------------------------------
00700>   *  READ AES DATA
00701>       [Filename  = YOW_1967_2007.123                                          ]
00702>       [Start_date= 1974.0101: End_date= 1974.1231]
00703>       {DT= 60.min: Length= 8760.hrs: WetHrs=  320: DryHrs= 8440: PTOT= 386.20}
00704>       Maximum average rainfall intensities over
00705>         1 hr     2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00706>        20.60    15.40    10.37     5.18     2.98     1.63     1.08      .81      .54    mm/hr
00707>        20.60    30.80    31.10    31.10    35.70    39.00    39.00    39.00    39.00    mm
00708>       19740718 19740719 19740719 19740719 19740305 19740305 19740306 19740306 19740307  date
00709>       Number of rainfall events per following interevent time
00710>         1 hr     2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00711>          129      105       93       77       63       50       38       33       23
00712>       Number of events with at least the following durations
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00713>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00714>          128       66       32       10        3        0        0        0        0
00715> R0074:C00003-------------------------------------------------------------------------------
00716>      COMPUTE API
00717>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00718>       {APImax= 52.93: APIavg= 11.36: APImin=   .00}
00719> #*******************************************************************************************************
00720> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00721> #*******************************************************************************************************
00722> R0074:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00723>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .124 1974.0719_ 1:45   27.61 .072     .000
00724>       [CN= 76.0: N= 3.00: Tp= 1.29]
00725>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00726>       [InterEventTime=  12.00]
00727> R0074:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00728>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .084 1974.0719_ 1:40   24.04 .062     .000
00729>       [CN= 72.0: N= 3.00: Tp= 1.18]
00730>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00731>       [InterEventTime=  12.00]
00732> R0074:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00733>     ADD HYD               5.0 02:West-A        19.67     .124 1974.0719_ 1:45   27.61  n/a     .000
00734>                       +     5.0 02:West-B        14.48     .084 1974.0719_ 1:40   24.04  n/a     .000
00735>                   SUM=      5.0 01:West-Total    34.15     .208 1974.0719_ 1:45   26.10  n/a     .000
00736> #*******************************************************************************************************
00737> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00738> #*******************************************************************************************************
00739> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00740> #*******************************************************************************************************
00741> R0074:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00742>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .459 1974.0719_ 1:30  119.81 .310     .000
00743>       [CN=100.0: N= 3.00: Tp= 1.29]
00744>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00745>       [InterEventTime=  12.00]
00746> R0074:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00747>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .360 1974.0719_ 1:25  119.81 .310     .000
00748>       [CN=100.0: N= 3.00: Tp= 1.18]
00749>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00750>       [InterEventTime=  12.00]
00751> R0074:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00752>     ADD HYD               5.0 02:INF-West-A    19.67     .459 1974.0719_ 1:30  119.81  n/a     .000
00753>                       +     5.0 02:INF-West-B    14.48     .360 1974.0719_ 1:25  119.81  n/a     .000
00754>                   SUM=      5.0 01:INF-West-T    34.15     .817 1974.0719_ 1:30  119.81  n/a     .000
00755> ###########################################################################
00756> # CONTINUOUS RAINFALL DATA
00757> ###########################################################################
00758>   ** END OF RUN :   74
00759>
00760> *******************************************************************************************************
00761>
00762>
00763>
00764>
00765>
00766>  RUN#:COMMAND#
00767> R0075:C00001-------------------------------------------------------------------------------
00768>      START
00769>       [TZERO =    .00 hrs on 19750101]
00770>       [METOUT=   2    (1=imperial, 2=metric output)]
00771>       [NSTORM=   0 ]
00772>       [NRUN  = 0075 ]
00773> #*******************************************************************************************************
00774> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00775> #*******************************************************************************************************
00776> #  Project Name: Barrhaven Conservancy Development
00777> #  Project Number: 1474
00778> #  Date        : 2021/Oct/18
00779> #  Modeller    : J.Burnett, P.Eng.
00780> #  Updated     : 2022/Dec/07 [JB]
00781> #  Updated     : 2022/Dec/13 [LP]
00782> #  Company     : J.F. Sabourin and Associates
00783> #  License #   : 2582634
00784> #*******************************************************************************************************
00785> # Ottawa International Airport (1967 - 2003)
00786> R0075:C00002-------------------------------------------------------------------------------
00787>   *  READ AES DATA
00788>       [Filename  = YOW_1967_2007.123                                          ]
00789>       [Start_date= 1975.0101: End_date= 1975.1231]
00790>       {DT= 60.min: Length= 8760.hrs: WetHrs=  344: DryHrs= 8416: PTOT= 535.50}
00791>       Maximum average rainfall intensities over
00792>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00793>        34.80    18.40    12.53     6.32     3.33     1.73     1.15      .87      .62    mm/hr
00794>        34.80    36.80    37.60    37.90    40.00    41.50    41.50    41.80    44.40    mm
00795>       19750708 19750720 19750720 19750720 19750721 19750721 19750721 19750721 19750928  date
00796>       Number of rainfall events per following interevent time
00797>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00798>          136      118       99       78       61       49       40       33       25
00799>       Number of events with at least the following durations
00800>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00801>          135       70       40       17        1        0        0        0        0
```

```
00802> R0075:C00003------------------------------------------------------------------------------------------
00803>      COMPUTE API
00804>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00805>       {APImax= 73.23: APIavg= 15.16: APImin=   .00}
00806> #*************************************************************************************************
00807> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00808> #*************************************************************************************************
00809> R0075:C00004-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00810>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .213 1975.0720_17:45   61.11 .114     .000
00811>       [CN= 76.0: N= 3.00: Tp= 1.29]
00812>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00813>       [InterEventTime=  12.00]
00814> R0075:C00005-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00815>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .146 1975.0720_17:40   53.72 .100     .000
00816>       [CN= 72.0: N= 3.00: Tp= 1.18]
00817>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00818>       [InterEventTime=  12.00]
00819> R0075:C00006-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00820>     ADD HYD               5.0 02:West-A        19.67     .213 1975.0720_17:45   61.11  n/a     .000
00821>                       +     5.0 02:West-B        14.48     .146 1975.0720_17:40   53.72  n/a     .000
00822>                   SUM=      5.0 01:West-Total    34.15     .359 1975.0720_17:45   57.98  n/a     .000
00823> #*************************************************************************************************
00824> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00825> #*************************************************************************************************
00826> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00827> #*************************************************************************************************
00828> R0075:C00007-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00829>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .600 1975.0708_18:00  219.51 .410     .000
00830>       [CN=100.0: N= 3.00: Tp= 1.29]
00831>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00832>       [InterEventTime=  12.00]
00833> R0075:C00008-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00834>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .480 1975.0708_17:50  219.51 .410     .000
00835>       [CN=100.0: N= 3.00: Tp= 1.18]
00836>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00837>       [InterEventTime=  12.00]
00838> R0075:C00009-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00839>     ADD HYD               5.0 02:INF-West-A    19.67     .600 1975.0708_18:00  219.51  n/a     .000
00840>                       +     5.0 02:INF-West-B    14.48     .480 1975.0708_17:50  219.51  n/a     .000
00841>                   SUM=      5.0 01:INF-West-T    34.15    1.078 1975.0708_17:55  219.51  n/a     .000
00842> ###########################################################################
00843> # CONTINUOUS RAINFALL DATA
00844> ###########################################################################
00845>   ** END OF RUN :   75
00846>
00847> *************************************************************************************************
00848>
00849>
00850>
00851>
00852>
00853>  RUN#:COMMAND#
00854> R0076:C00001------------------------------------------------------------------------------------------
00855>      START
00856>       [TZERO =    .00 hrs on 19760101]
00857>       [METOUT=   2    (1=imperial, 2=metric output)]
00858>       [NSTORM=   0 ]
00859>       [NRUN  = 0076 ]
00860> #*************************************************************************************************
00861> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00862> #*************************************************************************************************
00863> #  Project Name: Barrhaven Conservancy Development
00864> #  Project Number: 1474
00865> #  Date         : 2021/Oct/18
00866> #  Modeller     : J.Burnett, P.Eng.
00867> #  Updated      : 2022/Dec/07 [JB]
00868> #  Updated      : 2022/Dec/13 [LP]
00869> #  Company      : J.F. Sabourin and Associates
00870> #  License #    : 2582634
00871> #*************************************************************************************************
00872> # Ottawa International Airport (1967 - 2003)
00873> R0076:C00002------------------------------------------------------------------------------------------
00874>   *  READ AES DATA
00875>       [Filename  = YOW_1967_2007.123                                          ]
00876>       [Start_date= 1976.0101: End_date= 1976.1230]
00877>       {DT= 60.min: Length= 8064.hrs: WetHrs=  390: DryHrs= 7674: PTOT= 493.20}
00878>       Maximum average rainfall intensities over
00879>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00880>        14.00     8.90     6.43     4.65     2.35     1.39      .97      .99      .80    mm/hr
00881>        14.00    17.80    19.30    27.90    28.20    33.30    35.10    47.60    57.50    mm
00882>       19760828 19760828 19760828 19760828 19760828 19760920 19760520 19760520 19760921  date
00883>       Number of rainfall events per following interevent time
00884>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00885>          164      133      117       89       72       62       46       40       28
00886>       Number of events with at least the following durations
00887>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00888>          163       80       47       15        2        0        0        0        0
00889> R0076:C00003------------------------------------------------------------------------------------------
00890>      COMPUTE API
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00891>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00892>       {APImax= 59.66: APIavg= 15.35: APImin=   .02}
00893> #*************************************************************************************************
00894> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00895> #*************************************************************************************************
00896> R0076:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00897>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .098 1976.0519_23:20   42.34 .086     .000
00898>       [CN= 76.0: N= 3.00: Tp= 1.29]
00899>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00900>       [InterEventTime=  12.00]
00901> R0076:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00902>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .065 1976.0519_23:20   36.78 .075     .000
00903>       [CN= 72.0: N= 3.00: Tp= 1.18]
00904>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00905>       [InterEventTime=  12.00]
00906> R0076:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00907>     ADD HYD               5.0 02:West-A        19.67     .098 1976.0519_23:20   42.34  n/a     .000
00908>                       +     5.0 02:West-B        14.48     .065 1976.0519_23:20   36.78  n/a     .000
00909>                   SUM=      5.0 01:West-Total    34.15     .163 1976.0519_23:20   39.98  n/a     .000
00910> #*************************************************************************************************
00911> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00912> #*************************************************************************************************
00913> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00914> #*************************************************************************************************
00915> R0076:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00916>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .206 1976.0828_20:30  170.05 .345     .000
00917>       [CN=100.0: N= 3.00: Tp= 1.29]
00918>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00919>       [InterEventTime=  12.00]
00920> R0076:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00921>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .161 1976.0828_20:25  170.05 .345     .000
00922>       [CN=100.0: N= 3.00: Tp= 1.18]
00923>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
00924>       [InterEventTime=  12.00]
00925> R0076:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00926>     ADD HYD               5.0 02:INF-West-A    19.67     .206 1976.0828_20:30  170.05  n/a     .000
00927>                       +     5.0 02:INF-West-B    14.48     .161 1976.0828_20:25  170.05  n/a     .000
00928>                   SUM=      5.0 01:INF-West-T    34.15     .366 1976.0828_20:30  170.05  n/a     .000
00929> ###########################################################################
00930> # CONTINUOUS RAINFALL DATA
00931> ###########################################################################
00932>   ** END OF RUN :   76
00933>
00934> *************************************************************************************************
00935>
00936>
00937>
00938>
00939>
00940>  RUN#:COMMAND#
00941> R0077:C00001-----------------------------------------------------------------------------------------
00942>      START
00943>       [TZERO =    .00 hrs on 19770101]
00944>       [METOUT=   2    (1=imperial, 2=metric output)]
00945>       [NSTORM=   0 ]
00946>       [NRUN  = 0077 ]
00947> #*************************************************************************************************************
00948> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00949> #*************************************************************************************************************
00950> #  Project Name: Barrhaven Conservancy Development
00951> #  Project Number: 1474
00952> #  Date        : 2021/Oct/18
00953> #  Modeller    : J.Burnett, P.Eng.
00954> #  Updated     : 2022/Dec/07 [JB]
00955> #  Updated     : 2022/Dec/13 [LP]
00956> #  Company     : J.F. Sabourin and Associates
00957> #  License #   : 2582634
00958> #*************************************************************************************************************
00959> # Ottawa International Airport (1967 - 2003)
00960> R0077:C00002-----------------------------------------------------------------------------------------
00961>   *  READ AES DATA
00962>       [Filename  = YOW_1967_2007.123                                        ]
00963>       [Start_date= 1977.0101: End_date= 1977.1231]
00964>       {DT= 60.min: Length= 8016.hrs: WetHrs=  512: DryHrs= 7504: PTOT= 677.80}
00965>       Maximum average rainfall intensities over
00966>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00967>        21.30    15.20    10.40     6.53     3.30     1.66     1.40     1.06      .73    mm/hr
00968>        21.30    30.40    31.20    39.20    39.60    39.80    50.40    51.00    52.40    mm
00969>       19770717 19770717 19770717 19770901 19770902 19770314 19770314 19770314 19770718  date
00970>       Number of rainfall events per following interevent time
00971>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00972>          172      142      126       99       78       63       53       42       30
00973>       Number of events with at least the following durations
00974>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00975>          171       88       60       22        5        1        0        0        0
00976> R0077:C00003-----------------------------------------------------------------------------------------
00977>      COMPUTE API
00978>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00979>       {APImax= 74.80: APIavg= 20.62: APImin=  1.63}
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00980> #*******************************************************************************************************************
00981> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00982> #*******************************************************************************************************************
00983> R0077:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00984>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .208 1977.0901_23:55   80.37 .119     .000
00985>       [CN= 76.0: N= 3.00: Tp= 1.29]
00986>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
00987>       [InterEventTime=  12.00]
00988> R0077:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00989>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .144 1977.0901_23:50   70.59 .104     .000
00990>       [CN= 72.0: N= 3.00: Tp= 1.18]
00991>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
00992>       [InterEventTime=  12.00]
00993> R0077:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00994>     ADD HYD               5.0 02:West-A        19.67     .208 1977.0901_23:55   80.37  n/a     .000
00995>                   +       5.0 02:West-B        14.48     .144 1977.0901_23:50   70.59  n/a     .000
00996>                 SUM=      5.0 01:West-Total    34.15     .351 1977.0901_23:55   76.23  n/a     .000
00997> #*******************************************************************************************************************
00998> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00999> #*******************************************************************************************************************
01000> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01001> #*******************************************************************************************************************
01002> R0077:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01003>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .522 1977.0901_23:40  283.86 .419     .000
01004>       [CN=100.0: N= 3.00: Tp= 1.29]
01005>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01006>       [InterEventTime=  12.00]
01007> R0077:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01008>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .407 1977.0901_23:35  283.86 .419     .000
01009>       [CN=100.0: N= 3.00: Tp= 1.18]
01010>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01011>       [InterEventTime=  12.00]
01012> R0077:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01013>     ADD HYD               5.0 02:INF-West-A    19.67     .522 1977.0901_23:40  283.86  n/a     .000
01014>                   +       5.0 02:INF-West-B    14.48     .407 1977.0901_23:35  283.86  n/a     .000
01015>                 SUM=      5.0 01:INF-West-T    34.15     .928 1977.0901_23:40  283.86  n/a     .000
01016> ###############################################################################
01017> # CONTINUOUS RAINFALL DATA
01018> ###############################################################################
01019>   ** END OF RUN :   77
01020>
01021> *************************************************************************************************
01022>
01023>
01024>
01025>
01026>
01027>  RUN#:COMMAND#
01028> R0078:C00001-----------------------------------------------------------------------------------------
01029>      START
01030>       [TZERO =    .00 hrs on 19780101]
01031>       [METOUT=   2    (1=imperial, 2=metric output)]
01032>       [NSTORM=   0 ]
01033>       [NRUN  = 0078 ]
01034> #*******************************************************************************************************************
01035> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01036> #*******************************************************************************************************************
01037> #  Project Name: Barrhaven Conservancy Development
01038> #  Project Number: 1474
01039> #  Date        : 2021/Oct/18
01040> #  Modeller    : J.Burnett, P.Eng.
01041> #  Updated     : 2022/Dec/07 [JB]
01042> #  Updated     : 2022/Dec/13 [LP]
01043> #  Company     : J.F. Sabourin and Associates
01044> #  License #   : 2582634
01045> #*******************************************************************************************************************
01046> # Ottawa International Airport (1967 - 2003)
01047> R0078:C00002-----------------------------------------------------------------------------------------
01048>   *  READ AES DATA
01049>       [Filename  = YOW_1967_2007.123                                          ]
01050>       [Start_date= 1978.0101: End_date= 1978.1231]
01051>       {DT= 60.min: Length= 8040.hrs: WetHrs=  409: DryHrs= 7631: PTOT= 641.40}
01052>       Maximum average rainfall intensities over
01053>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01054>        36.00    18.15    12.10     6.05     3.04     1.64     1.13      .87      .58    mm/hr
01055>        36.00    36.30    36.30    36.30    36.50    39.40    40.60    41.60    41.60    mm
01056>       19780618 19780618 19780618 19780618 19780619 19780411 19780412 19780620 19780621  date
01057>       Number of rainfall events per following interevent time
01058>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01059>          154      128      118       97       71       58       51       46       33
01060>       Number of events with at least the following durations
01061>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01062>          154       75       44       18        5        0        0        0        0
01063> R0078:C00003-----------------------------------------------------------------------------------------
01064>      COMPUTE API
01065>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01066>       {APImax= 65.36: APIavg= 19.25: APImin=   .25}
01067> #*******************************************************************************************************************
01068> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
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01069> #*************************************************************************************************************
01070> R0078:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01071>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .252 1978.0618_18:05   61.75 .096     .000
01072>       [CN= 76.0: N= 3.00: Tp= 1.29]
01073>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01074>       [InterEventTime=  12.00]
01075> R0078:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01076>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .177 1978.0618_18:00   53.70 .084     .000
01077>       [CN= 72.0: N= 3.00: Tp= 1.18]
01078>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01079>       [InterEventTime=  12.00]
01080> R0078:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01081>     ADD HYD               5.0 02:West-A        19.67     .252 1978.0618_18:05   61.75  n/a     .000
01082>                     +     5.0 02:West-B        14.48     .177 1978.0618_18:00   53.70  n/a     .000
01083>                   SUM=    5.0 01:West-Total    34.15     .428 1978.0618_18:00   58.33  n/a     .000
01084> #*************************************************************************************************************
01085> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01086> #*************************************************************************************************************
01087> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01088> #*************************************************************************************************************
01089> R0078:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01090>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .647 1978.0618_17:55  269.84 .421     .000
01091>       [CN=100.0: N= 3.00: Tp= 1.29]
01092>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01093>       [InterEventTime=  12.00]
01094> R0078:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01095>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .517 1978.0618_17:50  269.84 .421     .000
01096>       [CN=100.0: N= 3.00: Tp= 1.18]
01097>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01098>       [InterEventTime=  12.00]
01099> R0078:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01100>     ADD HYD               5.0 02:INF-West-A    19.67     .647 1978.0618_17:55  269.84  n/a     .000
01101>                     +     5.0 02:INF-West-B    14.48     .517 1978.0618_17:50  269.84  n/a     .000
01102>                   SUM=    5.0 01:INF-West-T    34.15    1.161 1978.0618_17:55  269.84  n/a     .000
01103> ###########################################################################
01104> # CONTINUOUS RAINFALL DATA
01105> ###########################################################################
01106>   ** END OF RUN :   78
01107>
01108> *****************************************************************************************
01109>
01110>
01111>
01112>
01113>
01114>  RUN#:COMMAND#
01115> R0079:C00001-----------------------------------------------------------------------------------------
01116>      START
01117>       [TZERO =    .00 hrs on 19790101]
01118>       [METOUT=   2    (1=imperial, 2=metric output)]
01119>       [NSTORM=   0 ]
01120>       [NRUN  = 0079 ]
01121> #*************************************************************************************************************
01122> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01123> #*************************************************************************************************************
01124> #  Project Name: Barrhaven Conservancy Development
01125> #  Project Number: 1474
01126> #  Date        : 2021/Oct/18
01127> #  Modeller    : J.Burnett, P.Eng.
01128> #  Updated     : 2022/Dec/07 [JB]
01129> #  Updated     : 2022/Dec/13 [LP]
01130> #  Company     : J.F. Sabourin and Associates
01131> #  License #   : 2582634
01132> #*************************************************************************************************************
01133> # Ottawa International Airport (1967 - 2003)
01134> R0079:C00002-----------------------------------------------------------------------------------------
01135>   *  READ AES DATA
01136>       [Filename  = YOW_1967_2007.123                                          ]
01137>       [Start_date= 1979.0101: End_date= 1979.1231]
01138>       {DT= 60.min: Length= 8760.hrs: WetHrs=  546: DryHrs= 8214: PTOT= 866.50}
01139>       Maximum average rainfall intensities over
01140>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01141>        34.90    22.00    14.67     7.33     5.14     2.63     1.75     1.31      .88    mm/hr
01142>        34.90    44.00    44.00    44.00    61.70    63.00    63.00    63.00    63.00    mm
01143>       19790616 19790616 19790616 19790616 19790914 19790915 19790915 19790915 19790917  date
01144>       Number of rainfall events per following interevent time
01145>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01146>          188      147      129      103       86       60       53       43       36
01147>       Number of events with at least the following durations
01148>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01149>          187       97       65       25        6        1        0        0        0
01150> R0079:C00003-----------------------------------------------------------------------------------------
01151>      COMPUTE API
01152>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01153>       {APImax= 78.42: APIavg= 23.13: APImin=   .13}
01154> #*************************************************************************************************************
01155> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01156> #*************************************************************************************************************
01157> R0079:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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01158>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .350 1979.0616_15:00  159.06 .184     .000
01159>       [CN= 76.0: N= 3.00: Tp= 1.29]
01160>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01161>       [InterEventTime=  12.00]
01162> R0079:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01163>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .248 1979.0616_14:55  141.55 .163     .000
01164>       [CN= 72.0: N= 3.00: Tp= 1.18]
01165>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01166>       [InterEventTime=  12.00]
01167> R0079:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01168>     ADD HYD               5.0 02:West-A        19.67     .350 1979.0616_15:00  159.06  n/a     .000
01169>                       +     5.0 02:West-B        14.48     .248 1979.0616_14:55  141.55  n/a     .000
01170>                   SUM=      5.0 01:West-Total    34.15     .597 1979.0616_15:00  151.64  n/a     .000
01171> #*************************************************************************************************************
01172> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01173> #*************************************************************************************************************
01174> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01175> #*************************************************************************************************************
01176> R0079:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01177>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .798 1979.0616_14:50  449.28 .519     .000
01178>       [CN=100.0: N= 3.00: Tp= 1.29]
01179>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01180>       [InterEventTime=  12.00]
01181> R0079:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01182>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .635 1979.0616_14:45  449.28 .519     .000
01183>       [CN=100.0: N= 3.00: Tp= 1.18]
01184>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01185>       [InterEventTime=  12.00]
01186> R0079:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01187>     ADD HYD               5.0 02:INF-West-A    19.67     .798 1979.0616_14:50  449.28  n/a     .000
01188>                       +     5.0 02:INF-West-B    14.48     .635 1979.0616_14:45  449.28  n/a     .000
01189>                   SUM=      5.0 01:INF-West-T    34.15    1.430 1979.0616_14:45  449.28  n/a     .000
01190> ###########################################################################
01191> # CONTINUOUS RAINFALL DATA
01192> ###########################################################################
01193>   ** END OF RUN :   79
01194>
01195> *****************************************************************************************************
01196>
01197>
01198>
01199>
01200>
01201>  RUN#:COMMAND#
01202> R0080:C00001-------------------------------------------------------------------------------------------
01203>      START
01204>       [TZERO =    .00 hrs on 19800101]
01205>       [METOUT=   2    (1=imperial, 2=metric output)]
01206>       [NSTORM=   0 ]
01207>       [NRUN  = 0080 ]
01208> #*************************************************************************************************************
01209> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01210> #*************************************************************************************************************
01211> #  Project Name: Barrhaven Conservancy Development
01212> #  Project Number: 1474
01213> #  Date        : 2021/Oct/18
01214> #  Modeller    : J.Burnett, P.Eng.
01215> #  Updated     : 2022/Dec/07 [JB]
01216> #  Updated     : 2022/Dec/13 [LP]
01217> #  Company     : J.F. Sabourin and Associates
01218> #  License #   : 2582634
01219> #*************************************************************************************************************
01220> # Ottawa International Airport (1967 - 2003)
01221> R0080:C00002-------------------------------------------------------------------------------------------
01222>   *  READ AES DATA
01223>       [Filename  = YOW_1967_2007.123                                          ]
01224>       [Start_date= 1980.0101: End_date= 1980.1230]
01225>       {DT= 60.min: Length= 8760.hrs: WetHrs=  427: DryHrs= 8333: PTOT= 622.00}
01226>       Maximum average rainfall intensities over
01227>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01228>        15.00     9.20     6.50     4.72     3.57     1.97     1.35     1.01      .86    mm/hr
01229>        15.00    18.40    19.50    28.30    42.80    47.20    48.60    48.60    62.00    mm
01230>       19800830 19800830 19801025 19801025 19801026 19801026 19801026 19801027 19800902  date
01231>       Number of rainfall events per following interevent time
01232>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01233>          151      125      112       93       79       62       49       44       28
01234>       Number of events with at least the following durations
01235>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01236>          150       85       54       16        4        0        0        0        0
01237> R0080:C00003-------------------------------------------------------------------------------------------
01238>      COMPUTE API
01239>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01240>       {APImax= 68.72: APIavg= 17.50: APImin=   .06}
01241> #*************************************************************************************************************
01242> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01243> #*************************************************************************************************************
01244> R0080:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01245>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .118 1980.1026_ 0:35   66.79 .107     .000
01246>       [CN= 76.0: N= 3.00: Tp= 1.29]
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01247>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01248>       [InterEventTime=  12.00]
01249> R0080:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01250>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .080 1980.1026_ 0:30   58.50 .094     .000
01251>       [CN= 72.0: N= 3.00: Tp= 1.18]
01252>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01253>       [InterEventTime=  12.00]
01254> R0080:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01255>     ADD HYD               5.0 02:West-A        19.67     .118 1980.1026_ 0:35   66.79  n/a     .000
01256>                     +     5.0 02:West-B        14.48     .080 1980.1026_ 0:30   58.50  n/a     .000
01257>                   SUM=    5.0 01:West-Total    34.15     .198 1980.1026_ 0:30   63.27  n/a     .000
01258> #*************************************************************************************************
01259> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01260> #*************************************************************************************************
01261> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01262> #*************************************************************************************************
01263> R0080:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01264>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .253 1980.1025_17:45  254.15 .409     .000
01265>       [CN=100.0: N= 3.00: Tp= 1.29]
01266>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01267>       [InterEventTime=  12.00]
01268> R0080:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01269>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .194 1980.1025_17:35  254.15 .409     .000
01270>       [CN=100.0: N= 3.00: Tp= 1.18]
01271>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01272>       [InterEventTime=  12.00]
01273> R0080:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01274>     ADD HYD               5.0 02:INF-West-A    19.67     .253 1980.1025_17:45  254.15  n/a     .000
01275>                     +     5.0 02:INF-West-B    14.48     .194 1980.1025_17:35  254.15  n/a     .000
01276>                   SUM=    5.0 01:INF-West-T    34.15     .446 1980.1025_17:40  254.15  n/a     .000
01277> ###############################################################################
01278> # CONTINUOUS RAINFALL DATA
01279> ###############################################################################
01280>   ** END OF RUN :   80
01281>
01282> *************************************************************************************************
01283>
01284>
01285>
01286>
01287>
01288>  RUN#:COMMAND#
01289> R0081:C00001-----------------------------------------------------------------------------------
01290>      START
01291>       [TZERO =    .00 hrs on 19810101]
01292>       [METOUT=   2    (1=imperial, 2=metric output)]
01293>       [NSTORM=   0 ]
01294>       [NRUN  = 0081 ]
01295> #*************************************************************************************************
01296> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01297> #*************************************************************************************************
01298> #  Project Name: Barrhaven Conservancy Development
01299> #  Project Number: 1474
01300> #  Date         : 2021/Oct/18
01301> #  Modeller     : J.Burnett, P.Eng.
01302> #  Updated      : 2022/Dec/07 [JB]
01303> #  Updated      : 2022/Dec/13 [LP]
01304> #  Company      : J.F. Sabourin and Associates
01305> #  License #    : 2582634
01306> #*************************************************************************************************
01307> # Ottawa International Airport (1967 - 2003)
01308> R0081:C00002-----------------------------------------------------------------------------------
01309>   *  READ AES DATA
01310>       [Filename  = YOW_1967_2007.123                                          ]
01311>       [Start_date= 1981.0101: End_date= 1981.1231]
01312>       {DT= 60.min: Length= 8760.hrs: WetHrs=  641: DryHrs= 8119: PTOT= 936.40}
01313>       Maximum average rainfall intensities over
01314>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01315>        35.30    31.85    26.20    18.15     9.27     4.83     3.22     2.41     1.62    mm/hr
01316>        35.30    63.70    78.60   108.90   111.30   115.90   115.90   115.90   116.70    mm
01317>       19810805 19810805 19810805 19810805 19810805 19810805 19810806 19810806 19810805  date
01318>       Number of rainfall events per following interevent time
01319>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01320>          226      171      136      109       83       68       59       47       30
01321>       Number of events with at least the following durations
01322>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01323>          225      128       79       28        7        0        0        0        0
01324> R0081:C00003-----------------------------------------------------------------------------------
01325>      COMPUTE API
01326>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01327>       {APImax=123.49: APIavg= 25.69: APImin=   .26}
01328> #*************************************************************************************************
01329> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01330> #*************************************************************************************************
01331> R0081:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01332>     CONTINUOUS NASHYD     5.0 01:West-A        19.67    1.076 1981.0805_ 3:05  196.98 .210     .000
01333>       [CN= 76.0: N= 3.00: Tp= 1.29]
01334>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01335>       [InterEventTime=  12.00]
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01336> R0081:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01337>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .781 1981.0805_ 3:00  179.64 .192     .000
01338>       [CN= 72.0: N= 3.00: Tp= 1.18]
01339>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01340>       [InterEventTime=  12.00]
01341> R0081:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01342>     ADD HYD               5.0 02:West-A        19.67    1.076 1981.0805_ 3:05  196.98  n/a     .000
01343>                       +     5.0 02:West-B        14.48     .781 1981.0805_ 3:00  179.64  n/a     .000
01344>                   SUM=      5.0 01:West-Total    34.15    1.855 1981.0805_ 3:05  189.63  n/a     .000
01345> #*************************************************************************************************************
01346> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01347> #*************************************************************************************************************
01348> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01349> #*************************************************************************************************************
01350> R0081:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01351>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67    1.402 1981.0805_ 2:40  459.70 .491     .000
01352>       [CN=100.0: N= 3.00: Tp= 1.29]
01353>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01354>       [InterEventTime=  12.00]
01355> R0081:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01356>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48    1.079 1981.0805_ 2:35  459.70 .491     .000
01357>       [CN=100.0: N= 3.00: Tp= 1.18]
01358>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01359>       [InterEventTime=  12.00]
01360> R0081:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01361>     ADD HYD               5.0 02:INF-West-A    19.67    1.402 1981.0805_ 2:40  459.70  n/a     .000
01362>                       +     5.0 02:INF-West-B    14.48    1.079 1981.0805_ 2:35  459.70  n/a     .000
01363>                   SUM=      5.0 01:INF-West-T    34.15    2.479 1981.0805_ 2:35  459.70  n/a     .000
01364> ###########################################################################
01365> # CONTINUOUS RAINFALL DATA
01366> ###########################################################################
01367>   ** END OF RUN :   81
01368>
01369> *************************************************************************************************************
01370>
01371>
01372>
01373>
01374>
01375>  RUN#:COMMAND#
01376> R0082:C00001-------------------------------------------------------------------------------------------------
01377>      START
01378>       [TZERO =    .00 hrs on 19820101]
01379>       [METOUT=   2    (1=imperial, 2=metric output)]
01380>       [NSTORM=   0 ]
01381>       [NRUN  = 0082 ]
01382> #*************************************************************************************************************
01383> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01384> #*************************************************************************************************************
01385> #  Project Name: Barrhaven Conservancy Development
01386> #  Project Number: 1474
01387> #  Date        : 2021/Oct/18
01388> #  Modeller    : J.Burnett, P.Eng.
01389> #  Updated     : 2022/Dec/07 [JB]
01390> #  Updated     : 2022/Dec/13 [LP]
01391> #  Company     : J.F. Sabourin and Associates
01392> #  License #   : 2582634
01393> #*************************************************************************************************************
01394> # Ottawa International Airport (1967 - 2003)
01395> R0082:C00002-------------------------------------------------------------------------------------------------
01396>   *  READ AES DATA
01397>       [Filename  = YOW_1967_2007.123                                          ]
01398>       [Start_date= 1982.0101: End_date= 1982.1231]
01399>       {DT= 60.min: Length= 8760.hrs: WetHrs=  436: DryHrs= 8324: PTOT= 596.10}
01400>       Maximum average rainfall intensities over
01401>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01402>        19.80    10.75     7.60     5.83     3.36     1.68     1.12      .96      .80    mm/hr
01403>        19.80    21.50    22.80    35.00    40.30    40.30    40.30    46.30    57.30    mm
01404>       19820801 19820901 19820825 19820825 19820825 19820826 19820826 19820825 19820825  date
01405>       Number of rainfall events per following interevent time
01406>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01407>          134      110       98       78       66       57       48       41       33
01408>       Number of events with at least the following durations
01409>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01410>          133       81       58       18        4        1        1        0        0
01411> R0082:C00003-------------------------------------------------------------------------------------------------
01412>      COMPUTE API
01413>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01414>       {APImax= 56.66: APIavg= 16.78: APImin=   .03}
01415> #*************************************************************************************************************
01416> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01417> #*************************************************************************************************************
01418> R0082:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01419>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .154 1982.0825_12:25   54.10 .091     .000
01420>       [CN= 76.0: N= 3.00: Tp= 1.29]
01421>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01422>       [InterEventTime=  12.00]
01423> R0082:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01424>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .102 1982.0825_12:20   47.17 .079     .000
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01425>       [CN= 72.0: N= 3.00: Tp= 1.18]
01426>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01427>       [InterEventTime=  12.00]
01428> R0082:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01429>     ADD HYD              5.0 02:West-A        19.67     .154 1982.0825_12:25   54.10  n/a     .000
01430>                    +     5.0 02:West-B        14.48     .102 1982.0825_12:20   47.17  n/a     .000
01431>                  SUM=    5.0 01:West-Total    34.15     .255 1982.0825_12:25   51.16  n/a     .000
01432> #*******************************************************************************************************
01433> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01434> #*******************************************************************************************************
01435> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01436> #*******************************************************************************************************
01437> R0082:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01438>     CONTINUOUS NASHYD    5.0 01:INF-West-A    19.67     .402 1982.0825_11:40  228.69 .384     .000
01439>       [CN=100.0: N= 3.00: Tp= 1.29]
01440>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01441>       [InterEventTime=  12.00]
01442> R0082:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01443>     CONTINUOUS NASHYD    5.0 01:INF-West-B    14.48     .307 1982.0825_11:35  228.69 .384     .000
01444>       [CN=100.0: N= 3.00: Tp= 1.18]
01445>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01446>       [InterEventTime=  12.00]
01447> R0082:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01448>     ADD HYD              5.0 02:INF-West-A    19.67     .402 1982.0825_11:40  228.69  n/a     .000
01449>                    +     5.0 02:INF-West-B    14.48     .307 1982.0825_11:35  228.69  n/a     .000
01450>                  SUM=    5.0 01:INF-West-T    34.15     .709 1982.0825_11:40  228.69  n/a     .000
01451> ###############################################################################
01452> # CONTINUOUS RAINFALL DATA
01453> ###############################################################################
01454>   ** END OF RUN :   82
01455>
01456> *******************************************************************************************************
01457>
01458>
01459>
01460>
01461>
01462>  RUN#:COMMAND#
01463> R0083:C00001-------------------------------------------------------------------------------------------
01464>      START
01465>       [TZERO =    .00 hrs on 19830101]
01466>       [METOUT=   2    (1=imperial, 2=metric output)]
01467>       [NSTORM=   0 ]
01468>       [NRUN  = 0083 ]
01469> #*******************************************************************************************************
01470> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01471> #*******************************************************************************************************
01472> #  Project Name: Barrhaven Conservancy Development
01473> #  Project Number: 1474
01474> #  Date         : 2021/Oct/18
01475> #  Modeller     : J.Burnett, P.Eng.
01476> #  Updated      : 2022/Dec/07 [JB]
01477> #  Updated      : 2022/Dec/13 [LP]
01478> #  Company      : J.F. Sabourin and Associates
01479> #  License #    : 2582634
01480> #*******************************************************************************************************
01481> # Ottawa International Airport (1967 - 2003)
01482> R0083:C00002-------------------------------------------------------------------------------------------
01483>    *  READ AES DATA
01484>       [Filename  = YOW_1967_2007.123                                          ]
01485>       [Start_date= 1983.0101: End_date= 1983.1231]
01486>       {DT= 60.min: Length= 8760.hrs: WetHrs=  462: DryHrs= 8298: PTOT= 587.50}
01487>       Maximum average rainfall intensities over
01488>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01489>        10.40     9.70     7.53     5.43     3.18     2.36     1.68     1.32      .92    mm/hr
01490>        10.40    19.40    22.60    32.60    38.20    56.70    60.40    63.20    66.00    mm
01491>       19831004 19830921 19830921 19831005 19831005 19831005 19831005 19831006 19831008  date
01492>       Number of rainfall events per following interevent time
01493>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01494>          143      115      103       85       70       55       50       45       35
01495>       Number of events with at least the following durations
01496>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01497>          142       87       56       28        5        0        0        0        0
01498> R0083:C00003-------------------------------------------------------------------------------------------
01499>      COMPUTE API
01500>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01501>       {APImax= 79.86: APIavg= 16.57: APImin=   .05}
01502> #*******************************************************************************************************
01503> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01504> #*******************************************************************************************************
01505> R0083:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01506>     CONTINUOUS NASHYD    5.0 01:West-A        19.67     .196 1983.1005_16:40   58.94 .100     .000
01507>       [CN= 76.0: N= 3.00: Tp= 1.29]
01508>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01509>       [InterEventTime=  12.00]
01510> R0083:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01511>     CONTINUOUS NASHYD    5.0 01:West-B        14.48     .133 1983.1005_16:30   51.78 .088     .000
01512>       [CN= 72.0: N= 3.00: Tp= 1.18]
01513>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
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01514>       [InterEventTime=  12.00]
01515> R0083:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01516>     ADD HYD               5.0 02:West-A        19.67     .196 1983.1005_16:40   58.94  n/a     .000
01517>                      +     5.0 02:West-B        14.48     .133 1983.1005_16:30   51.78  n/a     .000
01518>                    SUM=    5.0 01:West-Total    34.15     .328 1983.1005_16:35   55.90  n/a     .000
01519> #*************************************************************************************************
01520> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01521> #*************************************************************************************************
01522> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01523> #*************************************************************************************************
01524> R0083:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01525>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .365 1983.1005_16:10  217.30 .370     .000
01526>       [CN=100.0: N= 3.00: Tp= 1.29]
01527>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01528>       [InterEventTime=  12.00]
01529> R0083:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01530>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .280 1983.1005_16:00  217.30 .370     .000
01531>       [CN=100.0: N= 3.00: Tp= 1.18]
01532>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01533>       [InterEventTime=  12.00]
01534> R0083:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01535>     ADD HYD               5.0 02:INF-West-A    19.67     .365 1983.1005_16:10  217.30  n/a     .000
01536>                      +     5.0 02:INF-West-B    14.48     .280 1983.1005_16:00  217.30  n/a     .000
01537>                    SUM=    5.0 01:INF-West-T    34.15     .644 1983.1005_16:05  217.30  n/a     .000
01538> ###########################################################################
01539> # CONTINUOUS RAINFALL DATA
01540> ###########################################################################
01541>   ** END OF RUN :   83
01542>
01543> *************************************************************************************************
01544>
01545>
01546>
01547>
01548>
01549>  RUN#:COMMAND#
01550> R0084:C00001-----------------------------------------------------------------------------------------
01551>      START
01552>       [TZERO =    .00 hrs on 19840101]
01553>       [METOUT=   2    (1=imperial, 2=metric output)]
01554>       [NSTORM=   0 ]
01555>       [NRUN  = 0084 ]
01556> #*************************************************************************************************
01557> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01558> #*************************************************************************************************
01559> #  Project Name: Barrhaven Conservancy Development
01560> #  Project Number: 1474
01561> #  Date        : 2021/Oct/18
01562> #  Modeller    : J.Burnett, P.Eng.
01563> #  Updated     : 2022/Dec/07 [JB]
01564> #  Updated     : 2022/Dec/13 [LP]
01565> #  Company     : J.F. Sabourin and Associates
01566> #  License #   : 2582634
01567> #*************************************************************************************************
01568> # Ottawa International Airport (1967 - 2003)
01569> R0084:C00002-----------------------------------------------------------------------------------------
01570>   *  READ AES DATA
01571>       [Filename  = YOW_1967_2007.123                                        ]
01572>       [Start_date= 1984.0101: End_date= 1984.1230]
01573>       {DT= 60.min: Length= 8760.hrs: WetHrs=  308: DryHrs= 8452: PTOT= 459.40}
01574>       Maximum average rainfall intensities over
01575>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01576>        17.80     9.70     7.57     4.33     3.01     1.85     1.58     1.19     1.00    mm/hr
01577>        17.80    19.40    22.70    26.00    36.10    44.30    57.00    57.00    72.20    mm
01578>       19840812 19840812 19840812 19840806 19840812 19840813 19840813 19840814 19840813  date
01579>       Number of rainfall events per following interevent time
01580>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01581>           98       80       75       63       55       48       40       34       26
01582>       Number of events with at least the following durations
01583>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01584>           97       58       39       11        3        1        0        0        0
01585> R0084:C00003-----------------------------------------------------------------------------------------
01586>      COMPUTE API
01587>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01588>       {APImax= 86.83: APIavg= 13.22: APImin=   .00}
01589> #*************************************************************************************************
01590> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01591> #*************************************************************************************************
01592> R0084:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01593>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .156 1984.0813_ 7:20   56.90 .124     .000
01594>       [CN= 76.0: N= 3.00: Tp= 1.29]
01595>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01596>       [InterEventTime=  12.00]
01597> R0084:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01598>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .111 1984.0813_ 7:10   49.92 .109     .000
01599>       [CN= 72.0: N= 3.00: Tp= 1.18]
01600>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01601>       [InterEventTime=  12.00]
01602> R0084:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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01603>     ADD HYD               5.0 02:West-A        19.67     .156 1984.0813_ 7:20   56.90  n/a     .000
01604>                       +     5.0 02:West-B        14.48     .111 1984.0813_ 7:10   49.92  n/a     .000
01605>                   SUM=      5.0 01:West-Total    34.15     .267 1984.0813_ 7:15   53.94  n/a     .000
01606> #*************************************************************************************************************
01607> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01608> #*************************************************************************************************************
01609> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01610> #*************************************************************************************************************
01611> R0084:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01612>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .357 1984.0812_ 7:55  207.21 .451     .000
01613>       [CN=100.0: N= 3.00: Tp= 1.29]
01614>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01615>       [InterEventTime=  12.00]
01616> R0084:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01617>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .285 1984.0812_ 7:45  207.21 .451     .000
01618>       [CN=100.0: N= 3.00: Tp= 1.18]
01619>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01620>       [InterEventTime=  12.00]
01621> R0084:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01622>     ADD HYD               5.0 02:INF-West-A    19.67     .357 1984.0812_ 7:55  207.21  n/a     .000
01623>                       +     5.0 02:INF-West-B    14.48     .285 1984.0812_ 7:45  207.21  n/a     .000
01624>                   SUM=      5.0 01:INF-West-T    34.15     .641 1984.0812_ 7:50  207.21  n/a     .000
01625> ##########################################################################
01626> # CONTINUOUS RAINFALL DATA
01627> ##########################################################################
01628>   ** END OF RUN :   84
01629>
01630> *************************************************************************************************************
01631>
01632>
01633>
01634>
01635>
01636>  RUN#:COMMAND#
01637> R0085:C00001-----------------------------------------------------------------------------------------------
01638>      START
01639>       [TZERO =    .00 hrs on 19850101]
01640>       [METOUT=   2    (1=imperial, 2=metric output)]
01641>       [NSTORM=   0 ]
01642>       [NRUN  = 0085 ]
01643> #*************************************************************************************************************
01644> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01645> #*************************************************************************************************************
01646> #  Project Name: Barrhaven Conservancy Development
01647> #  Project Number: 1474
01648> #  Date         : 2021/Oct/18
01649> #  Modeller     : J.Burnett, P.Eng.
01650> #  Updated      : 2022/Dec/07 [JB]
01651> #  Updated      : 2022/Dec/13 [LP]
01652> #  Company      : J.F. Sabourin and Associates
01653> #  License #    : 2582634
01654> #*************************************************************************************************************
01655> # Ottawa International Airport (1967 - 2003)
01656> R0085:C00002-----------------------------------------------------------------------------------------------
01657>   *  READ AES DATA
01658>       [Filename  = YOW_1967_2007.123                                          ]
01659>       [Start_date= 1985.0101: End_date= 1985.1231]
01660>       {DT= 60.min: Length= 8760.hrs: WetHrs=  354: DryHrs= 8406: PTOT= 559.90}
01661>       Maximum average rainfall intensities over
01662>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01663>        19.00    13.60    11.73     6.60     3.30     1.65     1.11      .89      .60    mm/hr
01664>        19.00    27.20    35.20    39.60    39.60    39.60    40.10    42.80    43.40    mm
01665>       19850716 19850617 19850617 19850618 19850618 19850618 19850618 19850827 19850827  date
01666>       Number of rainfall events per following interevent time
01667>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01668>          108       88       84       74       69       56       49       43       32
01669>       Number of events with at least the following durations
01670>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01671>          107       70       43       13        4        1        0        0        0
01672> R0085:C00003-----------------------------------------------------------------------------------------------
01673>      COMPUTE API
01674>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01675>       {APImax= 57.29: APIavg= 15.86: APImin=   .20}
01676> #*************************************************************************************************************
01677> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01678> #*************************************************************************************************************
01679> R0085:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01680>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .185 1985.0618_ 0:45   60.37 .108     .000
01681>       [CN= 76.0: N= 3.00: Tp= 1.29]
01682>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01683>       [InterEventTime=  12.00]
01684> R0085:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01685>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .125 1985.0618_ 0:35   52.48 .094     .000
01686>       [CN= 72.0: N= 3.00: Tp= 1.18]
01687>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01688>       [InterEventTime=  12.00]
01689> R0085:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01690>     ADD HYD               5.0 02:West-A        19.67     .185 1985.0618_ 0:45   60.37  n/a     .000
01691>                       +     5.0 02:West-B        14.48     .125 1985.0618_ 0:35   52.48  n/a     .000
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01692>                  SUM=     5.0 01:West-Total    34.15     .310 1985.0618_ 0:40   57.02  n/a     .000
01693> #*************************************************************************************************************
01694> #                   Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01695> #*************************************************************************************************************
01696> #                   Set infiltration to 0 (CN = 99.99) for water balance analysis
01697> #*************************************************************************************************************
01698> R0085:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01699>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .499 1985.0618_ 0:15  262.29 .468     .000
01700>       [CN=100.0: N= 3.00: Tp= 1.29]
01701>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01702>       [InterEventTime=  12.00]
01703> R0085:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01704>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .384 1985.0618_ 0:10  262.29 .468     .000
01705>       [CN=100.0: N= 3.00: Tp= 1.18]
01706>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01707>       [InterEventTime=  12.00]
01708> R0085:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01709>     ADD HYD               5.0 02:INF-West-A    19.67     .499 1985.0618_ 0:15  262.29  n/a     .000
01710>                   +       5.0 02:INF-West-B    14.48     .384 1985.0618_ 0:10  262.29  n/a     .000
01711>                  SUM=     5.0 01:INF-West-T    34.15     .881 1985.0618_ 0:15  262.29  n/a     .000
01712> ##########################################################################
01713> # CONTINUOUS RAINFALL DATA
01714> ##########################################################################
01715>   ** END OF RUN :   85
01716>
01717> ***************************************************************************************************
01718>
01719>
01720>
01721>
01722>
01723>  RUN#:COMMAND#
01724> R0086:C00001------------------------------------------------------------------------------------------
01725>      START
01726>       [TZERO =    .00 hrs on 19860101]
01727>       [METOUT=   2    (1=imperial, 2=metric output)]
01728>       [NSTORM=   0 ]
01729>       [NRUN  = 0086 ]
01730> #*************************************************************************************************************
01731> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01732> #*************************************************************************************************************
01733> #  Project Name: Barrhaven Conservancy Development
01734> #  Project Number: 1474
01735> #  Date         : 2021/Oct/18
01736> #  Modeller     : J.Burnett, P.Eng.
01737> #  Updated      : 2022/Dec/07 [JB]
01738> #  Updated      : 2022/Dec/13 [LP]
01739> #  Company      : J.F. Sabourin and Associates
01740> #  License #    : 2582634
01741> #*************************************************************************************************************
01742> # Ottawa International Airport (1967 - 2003)
01743> R0086:C00002------------------------------------------------------------------------------------------
01744>   *  READ AES DATA
01745>       [Filename  = YOW_1967_2007.123                                          ]
01746>       [Start_date= 1986.0101: End_date= 1986.1231]
01747>       {DT= 60.min: Length= 8040.hrs: WetHrs=  520: DryHrs= 7520: PTOT= 849.40}
01748>       Maximum average rainfall intensities over
01749>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01750>        18.30    17.80    13.57     7.07     4.84     2.89     2.42     1.85     1.31    mm/hr
01751>        18.30    35.60    40.70    42.40    58.10    69.30    87.00    88.60    94.40    mm
01752>       19860729 19860729 19860729 19860729 19860912 19860912 19860912 19860912 19860913  date
01753>       Number of rainfall events per following interevent time
01754>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01755>          178      144      131      104       80       63       53       48       33
01756>       Number of events with at least the following durations
01757>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01758>          177      104       76       24        2        0        0        0        0
01759> R0086:C00003------------------------------------------------------------------------------------------
01760>      COMPUTE API
01761>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01762>       {APImax=102.23: APIavg= 25.30: APImin=   .17}
01763> #*************************************************************************************************************
01764> #                   Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01765> #*************************************************************************************************************
01766> R0086:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01767>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .363 1986.0911_23:45  163.15 .192     .000
01768>       [CN= 76.0: N= 3.00: Tp= 1.29]
01769>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01770>       [InterEventTime=  12.00]
01771> R0086:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01772>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .258 1986.0911_23:40  146.75 .173     .000
01773>       [CN= 72.0: N= 3.00: Tp= 1.18]
01774>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01775>       [InterEventTime=  12.00]
01776> R0086:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01777>     ADD HYD               5.0 02:West-A        19.67     .363 1986.0911_23:45  163.15  n/a     .000
01778>                   +       5.0 02:West-B        14.48     .258 1986.0911_23:40  146.75  n/a     .000
01779>                  SUM=     5.0 01:West-Total    34.15     .621 1986.0911_23:45  156.19  n/a     .000
01780> #*************************************************************************************************************
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01781> #                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01782> #*************************************************************************************************************
01783> #                 Set infiltration to 0 (CN = 99.99) for water balance analysis
01784> #*************************************************************************************************************
01785> R0086:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01786>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .630 1986.0729_15:50  418.06 .492     .000
01787>       [CN=100.0: N= 3.00: Tp= 1.29]
01788>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01789>       [InterEventTime=  12.00]
01790> R0086:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01791>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .491 1986.0729_15:40  418.06 .492     .000
01792>       [CN=100.0: N= 3.00: Tp= 1.18]
01793>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01794>       [InterEventTime=  12.00]
01795> R0086:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01796>     ADD HYD               5.0 02:INF-West-A    19.67     .630 1986.0729_15:50  418.05  n/a     .000
01797>                     +     5.0 02:INF-West-B    14.48     .491 1986.0729_15:40  418.05  n/a     .000
01798>                   SUM=    5.0 01:INF-West-T    34.15    1.119 1986.0729_15:45  418.06  n/a     .000
01799> ###########################################################################
01800> # CONTINUOUS RAINFALL DATA
01801> ###########################################################################
01802>   ** END OF RUN :   86
01803>
01804> *************************************************************************************************************
01805>
01806>
01807>
01808>
01809>
01810>  RUN#:COMMAND#
01811> R0087:C00001-----------------------------------------------------------------------------------------------
01812>      START
01813>       [TZERO =    .00 hrs on 19870101]
01814>       [METOUT=   2    (1=imperial, 2=metric output)]
01815>       [NSTORM=   0 ]
01816>       [NRUN  = 0087 ]
01817> #*************************************************************************************************************
01818> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01819> #*************************************************************************************************************
01820> #  Project Name: Barrhaven Conservancy Development
01821> #  Project Number: 1474
01822> #  Date        : 2021/Oct/18
01823> #  Modeller    : J.Burnett, P.Eng.
01824> #  Updated     : 2022/Dec/07 [JB]
01825> #  Updated     : 2022/Dec/13 [LP]
01826> #  Company     : J.F. Sabourin and Associates
01827> #  License #   : 2582634
01828> #*************************************************************************************************************
01829> # Ottawa International Airport (1967 - 2003)
01830> R0087:C00002-----------------------------------------------------------------------------------------------
01831>   *  READ AES DATA
01832>       [Filename  = YOW_1967_2007.123                                          ]
01833>       [Start_date= 1987.0101: End_date= 1987.1231]
01834>       {DT= 60.min: Length= 7344.hrs: WetHrs=  492: DryHrs= 6852: PTOT= 640.10}
01835>       Maximum average rainfall intensities over
01836>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01837>        20.00    13.90    14.03     7.05     4.87     2.46     1.84     1.40      .93    mm/hr
01838>        20.00    27.80    42.10    42.30    58.40    59.00    66.40    67.00    67.00    mm
01839>       19870724 19870724 19870724 19870724 19870724 19870725 19870725 19870726 19870726  date
01840>       Number of rainfall events per following interevent time
01841>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01842>          180      147      128       93       74       55       49       41       28
01843>       Number of events with at least the following durations
01844>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01845>          179       94       60       20        3        0        0        0        0
01846> R0087:C00003-----------------------------------------------------------------------------------------------
01847>      COMPUTE API
01848>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01849>       {APImax= 75.76: APIavg= 21.41: APImin=  1.18}
01850> #*************************************************************************************************************
01851> #                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01852> #*************************************************************************************************************
01853> R0087:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01854>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .264 1987.0724_15:45   77.04 .120     .000
01855>       [CN= 76.0: N= 3.00: Tp= 1.29]
01856>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01857>       [InterEventTime=  12.00]
01858> R0087:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01859>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .182 1987.0724_15:40   68.56 .107     .000
01860>       [CN= 72.0: N= 3.00: Tp= 1.18]
01861>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01862>       [InterEventTime=  12.00]
01863> R0087:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01864>     ADD HYD               5.0 02:West-A        19.67     .264 1987.0724_15:45   77.04  n/a     .000
01865>                     +     5.0 02:West-B        14.48     .182 1987.0724_15:40   68.56  n/a     .000
01866>                   SUM=    5.0 01:West-Total    34.15     .446 1987.0724_15:45   73.44  n/a     .000
01867> #*************************************************************************************************************
01868> #                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01869> #*************************************************************************************************************
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01870> #                 Set infiltration to 0 (CN = 99.99) for water balance analysis
01871> #*************************************************************************************************
01872> R0087:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01873>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .567 1987.0724_15:25  240.27 .375     .000
01874>       [CN=100.0: N= 3.00: Tp= 1.29]
01875>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01876>       [InterEventTime=  12.00]
01877> R0087:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01878>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .433 1987.0724_15:20  240.27 .375     .000
01879>       [CN=100.0: N= 3.00: Tp= 1.18]
01880>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01881>       [InterEventTime=  12.00]
01882> R0087:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01883>     ADD HYD               5.0 02:INF-West-A    19.67     .567 1987.0724_15:25  240.27  n/a     .000
01884>                       +     5.0 02:INF-West-B    14.48     .433 1987.0724_15:20  240.27  n/a     .000
01885>                   SUM=      5.0 01:INF-West-T    34.15    1.000 1987.0724_15:25  240.27  n/a     .000
01886> ###############################################################################
01887> # CONTINUOUS RAINFALL DATA
01888> ###############################################################################
01889>   ** END OF RUN :   87
01890>
01891> *************************************************************************************************
01892>
01893>
01894>
01895>
01896>
01897>  RUN#:COMMAND#
01898> R0088:C00001-----------------------------------------------------------------------------------------
01899>      START
01900>       [TZERO =    .00 hrs on 19880101]
01901>       [METOUT=   2    (1=imperial, 2=metric output)]
01902>       [NSTORM=   0 ]
01903>       [NRUN  = 0088 ]
01904> #*************************************************************************************************************
01905> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01906> #*************************************************************************************************************
01907> #  Project Name: Barrhaven Conservancy Development
01908> #  Project Number: 1474
01909> #  Date        : 2021/Oct/18
01910> #  Modeller    : J.Burnett, P.Eng.
01911> #  Updated     : 2022/Dec/07 [JB]
01912> #  Updated     : 2022/Dec/13 [LP]
01913> #  Company     : J.F. Sabourin and Associates
01914> #  License #   : 2582634
01915> #*************************************************************************************************************
01916> # Ottawa International Airport (1967 - 2003)
01917> R0088:C00002-----------------------------------------------------------------------------------------
01918>   *  READ AES DATA
01919>       [Filename  = YOW_1967_2007.123                                          ]
01920>       [Start_date= 1988.0101: End_date= 1988.1230]
01921>       {DT= 60.min: Length= 8760.hrs: WetHrs=  487: DryHrs= 8273: PTOT= 643.80}
01922>       Maximum average rainfall intensities over
01923>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01924>        25.50    18.20    12.77     7.37     3.78     1.91     1.27      .95      .94    mm/hr
01925>        25.50    36.40    38.30    44.20    45.40    45.80    45.80    45.80    67.40    mm
01926>       19880917 19880726 19880625 19880625 19880625 19880625 19880625 19880626 19880625  date
01927>       Number of rainfall events per following interevent time
01928>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01929>          165      130      109       80       66       56       49       42       26
01930>       Number of events with at least the following durations
01931>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01932>          164      102       71       20        5        0        0        0        0
01933> R0088:C00003-----------------------------------------------------------------------------------------
01934>      COMPUTE API
01935>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01936>       {APImax= 66.04: APIavg= 18.06: APImin=   .03}
01937> #*************************************************************************************************
01938> #                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01939> #*************************************************************************************************
01940> R0088:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01941>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .323 1988.0625_13:50   75.66 .118     .000
01942>       [CN= 76.0: N= 3.00: Tp= 1.29]
01943>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01944>       [InterEventTime=  12.00]
01945> R0088:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01946>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .226 1988.0625_13:45   66.49 .103     .000
01947>       [CN= 72.0: N= 3.00: Tp= 1.18]
01948>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01949>       [InterEventTime=  12.00]
01950> R0088:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01951>     ADD HYD               5.0 02:West-A        19.67     .323 1988.0625_13:50   75.66  n/a     .000
01952>                       +     5.0 02:West-B        14.48     .226 1988.0625_13:45   66.49  n/a     .000
01953>                   SUM=      5.0 01:West-Total    34.15     .548 1988.0625_13:45   71.77  n/a     .000
01954> #*************************************************************************************************
01955> #                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01956> #*************************************************************************************************
01957> #                 Set infiltration to 0 (CN = 99.99) for water balance analysis
01958> #*************************************************************************************************
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01959> R0088:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01960>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .676 1988.0625_13:35  255.71 .397     .000
01961>       [CN=100.0: N= 3.00: Tp= 1.29]
01962>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01963>       [InterEventTime=  12.00]
01964> R0088:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01965>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .526 1988.0625_13:30  255.71 .397     .000
01966>       [CN=100.0: N= 3.00: Tp= 1.18]
01967>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
01968>       [InterEventTime=  12.00]
01969> R0088:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01970>     ADD HYD               5.0 02:INF-West-A    19.67     .676 1988.0625_13:35  255.71  n/a     .000
01971>                     +     5.0 02:INF-West-B    14.48     .526 1988.0625_13:30  255.71  n/a     .000
01972>                   SUM=    5.0 01:INF-West-T    34.15    1.202 1988.0625_13:30  255.71  n/a     .000
01973> ################################################################################
01974> # CONTINUOUS RAINFALL DATA
01975> ################################################################################
01976>   ** END OF RUN :   88
01977>
01978> ********************************************************************************************
01979>
01980>
01981>
01982>
01983>
01984>  RUN#:COMMAND#
01985> R0089:C00001-----------------------------------------------------------------------------------------
01986>      START
01987>       [TZERO =    .00 hrs on 19890101]
01988>       [METOUT=   2    (1=imperial, 2=metric output)]
01989>       [NSTORM=   0 ]
01990>       [NRUN  = 0089 ]
01991> #*****************************************************************************************************************
01992> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01993> #*****************************************************************************************************************
01994> #  Project Name: Barrhaven Conservancy Development
01995> #  Project Number: 1474
01996> #  Date        : 2021/Oct/18
01997> #  Modeller    : J.Burnett, P.Eng.
01998> #  Updated     : 2022/Dec/07 [JB]
01999> #  Updated     : 2022/Dec/13 [LP]
02000> #  Company     : J.F. Sabourin and Associates
02001> #  License #   : 2582634
02002> #*****************************************************************************************************************
02003> # Ottawa International Airport (1967 - 2003)
02004> R0089:C00002-----------------------------------------------------------------------------------------
02005>   *  READ AES DATA
02006>       [Filename  = YOW_1967_2007.123                                          ]
02007>       [Start_date= 1989.0101: End_date= 1989.1231]
02008>       {DT= 60.min: Length= 8040.hrs: WetHrs=  422: DryHrs= 7618: PTOT= 523.20}
02009>       Maximum average rainfall intensities over
02010>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02011>        22.70    12.60     8.93     5.75     3.03     1.69     1.14      .86      .59    mm/hr
02012>        22.70    25.20    26.80    34.50    36.30    40.60    40.90    41.30    42.50    mm
02013>       19890727 19890727 19890727 19890727 19890727 19891020 19891021 19891021 19891022  date
02014>       Number of rainfall events per following interevent time
02015>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02016>          151      125      108       89       67       53       42       37       29
02017>       Number of events with at least the following durations
02018>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02019>          150       81       52       19        5        0        0        0        0
02020> R0089:C00003-----------------------------------------------------------------------------------------
02021>      COMPUTE API
02022>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02023>       {APImax= 55.10: APIavg= 16.03: APImin=   .02}
02024> #*****************************************************************************************************************
02025> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02026> #*****************************************************************************************************************
02027> R0089:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02028>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .141 1989.0727_16:15   47.58 .091     .000
02029>       [CN= 76.0: N= 3.00: Tp= 1.29]
02030>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02031>       [InterEventTime=  12.00]
02032> R0089:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02033>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .095 1989.0727_16:10   41.43 .079     .000
02034>       [CN= 72.0: N= 3.00: Tp= 1.18]
02035>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02036>       [InterEventTime=  12.00]
02037> R0089:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02038>     ADD HYD               5.0 02:West-A        19.67     .141 1989.0727_16:15   47.58  n/a     .000
02039>                     +     5.0 02:West-B        14.48     .095 1989.0727_16:10   41.43  n/a     .000
02040>                   SUM=    5.0 01:West-Total    34.15     .236 1989.0727_16:15   44.97  n/a     .000
02041> #*****************************************************************************************************************
02042> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02043> #*****************************************************************************************************************
02044> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02045> #*****************************************************************************************************************
02046> R0089:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02047>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .477 1989.0727_16:00  197.69 .378     .000
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02048>       [CN=100.0: N= 3.00: Tp= 1.29]
02049>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02050>       [InterEventTime=  12.00]
02051> R0089:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02052>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .377 1989.0727_15:55  197.69 .378     .000
02053>       [CN=100.0: N= 3.00: Tp= 1.18]
02054>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02055>       [InterEventTime=  12.00]
02056> R0089:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02057>     ADD HYD               5.0 02:INF-West-A    19.67     .477 1989.0727_16:00  197.69  n/a     .000
02058>                   +       5.0 02:INF-West-B    14.48     .377 1989.0727_15:55  197.69  n/a     .000
02059>                 SUM=      5.0 01:INF-West-T    34.15     .853 1989.0727_15:55  197.69  n/a     .000
02060> ##############################################################################
02061> # CONTINUOUS RAINFALL DATA
02062> ##############################################################################
02063>   ** END OF RUN :   89
02064>
02065> ********************************************************************************************************
02066>
02067>
02068>
02069>
02070>
02071>  RUN#:COMMAND#
02072> R0090:C00001-----------------------------------------------------------------------------------------
02073>      START
02074>       [TZERO =    .00 hrs on 19900101]
02075>       [METOUT=   2    (1=imperial, 2=metric output)]
02076>       [NSTORM=   0 ]
02077>       [NRUN  = 0090 ]
02078> #*******************************************************************************************************
02079> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02080> #*******************************************************************************************************
02081> #  Project Name: Barrhaven Conservancy Development
02082> #  Project Number: 1474
02083> #  Date         : 2021/Oct/18
02084> #  Modeller     : J.Burnett, P.Eng.
02085> #  Updated      : 2022/Dec/07 [JB]
02086> #  Updated      : 2022/Dec/13 [LP]
02087> #  Company      : J.F. Sabourin and Associates
02088> #  License #    : 2582634
02089> #*******************************************************************************************************
02090> # Ottawa International Airport (1967 - 2003)
02091> R0090:C00002-----------------------------------------------------------------------------------------
02092>   *  READ AES DATA
02093>       [Filename  = YOW_1967_2007.123                                          ]
02094>       [Start_date= 1990.0101: End_date= 1990.1231]
02095>       {DT= 60.min: Length= 7344.hrs: WetHrs=  618: DryHrs= 6726: PTOT= 727.80}
02096>       Maximum average rainfall intensities over
02097>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02098>        20.60    12.25     9.60     5.58     4.43     2.25     1.50     1.23     1.06    mm/hr
02099>        20.60    24.50    28.80    33.50    53.20    54.00    54.00    59.00    76.60    mm
02100>       19900720 19900720 19900828 19900828 19900720 19900720 19900720 19900722 19900723  date
02101>       Number of rainfall events per following interevent time
02102>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02103>          204      156      141      107       84       66       56       47       33
02104>       Number of events with at least the following durations
02105>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02106>          203      116       75       31        6        1        0        0        0
02107> R0090:C00003-----------------------------------------------------------------------------------------
02108>      COMPUTE API
02109>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02110>       {APImax= 75.10: APIavg= 23.47: APImin=  3.10}
02111> #*******************************************************************************************************
02112> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02113> #*******************************************************************************************************
02114> R0090:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02115>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .265 1990.0720_14:15   96.52 .133     .000
02116>       [CN= 76.0: N= 3.00: Tp= 1.29]
02117>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02118>       [InterEventTime=  12.00]
02119> R0090:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02120>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .185 1990.0720_14:10   85.06 .117     .000
02121>       [CN= 72.0: N= 3.00: Tp= 1.18]
02122>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02123>       [InterEventTime=  12.00]
02124> R0090:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02125>     ADD HYD               5.0 02:West-A        19.67     .265 1990.0720_14:15   96.52  n/a     .000
02126>                   +       5.0 02:West-B        14.48     .185 1990.0720_14:10   85.06  n/a     .000
02127>                 SUM=      5.0 01:West-Total    34.15     .450 1990.0720_14:10   91.66  n/a     .000
02128> #*******************************************************************************************************
02129> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02130> #*******************************************************************************************************
02131> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02132> #*******************************************************************************************************
02133> R0090:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02134>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .427 1990.0720_ 6:00  311.89 .429     .000
02135>       [CN=100.0: N= 3.00: Tp= 1.29]
02136>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
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02137>       [InterEventTime=  12.00]
02138> R0090:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02139>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .337 1990.0720_ 5:55  311.89 .429     .000
02140>       [CN=100.0: N= 3.00: Tp= 1.18]
02141>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02142>       [InterEventTime=  12.00]
02143> R0090:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02144>     ADD HYD               5.0 02:INF-West-A    19.67     .427 1990.0720_ 6:00  311.89  n/a     .000
02145>                   +       5.0 02:INF-West-B    14.48     .337 1990.0720_ 5:55  311.89  n/a     .000
02146>                 SUM=      5.0 01:INF-West-T    34.15     .763 1990.0720_ 6:00  311.89  n/a     .000
02147> ###############################################################################
02148> # CONTINUOUS RAINFALL DATA
02149> ###############################################################################
02150>   ** END OF RUN :   90
02151>
02152> ************************************************************************************************
02153>
02154>
02155>
02156>
02157>
02158>  RUN#:COMMAND#
02159> R0091:C00001-----------------------------------------------------------------------------------------
02160>      START
02161>       [TZERO =    .00 hrs on 19910101]
02162>       [METOUT=   2    (1=imperial, 2=metric output)]
02163>       [NSTORM=   0 ]
02164>       [NRUN  = 0091 ]
02165> #*****************************************************************************************************
02166> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02167> #*****************************************************************************************************
02168> #  Project Name: Barrhaven Conservancy Development
02169> #  Project Number: 1474
02170> #  Date         : 2021/Oct/18
02171> #  Modeller     : J.Burnett, P.Eng.
02172> #  Updated      : 2022/Dec/07 [JB]
02173> #  Updated      : 2022/Dec/13 [LP]
02174> #  Company      : J.F. Sabourin and Associates
02175> #  License #    : 2582634
02176> #*****************************************************************************************************
02177> # Ottawa International Airport (1967 - 2003)
02178> R0091:C00002-----------------------------------------------------------------------------------------
02179>   *  READ AES DATA
02180>       [Filename  = YOW_1967_2007.123                                          ]
02181>       [Start_date= 1991.0101: End_date= 1991.1231]
02182>       {DT= 60.min: Length= 8040.hrs: WetHrs=  486: DryHrs= 7554: PTOT= 556.00}
02183>       Maximum average rainfall intensities over
02184>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02185>        11.30     9.90     6.87     4.10     2.53     1.72     1.28     1.08      .79    mm/hr
02186>        11.30    19.80    20.60    24.60    30.40    41.20    46.00    51.60    57.00    mm
02187>       19910409 19910409 19910409 19910409 19911016 19910422 19910410 19910410 19910423  date
02188>       Number of rainfall events per following interevent time
02189>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02190>          165      137      127      102       80       63       52       45       38
02191>       Number of events with at least the following durations
02192>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02193>          164       89       56       21        6        1        0        0        0
02194> R0091:C00003-----------------------------------------------------------------------------------------
02195>      COMPUTE API
02196>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02197>       {APImax= 72.80: APIavg= 16.88: APImin=   .26}
02198> #*****************************************************************************************************
02199> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02200> #*****************************************************************************************************
02201> R0091:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02202>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .120 1991.0410_ 4:10   52.68 .095     .000
02203>       [CN= 76.0: N= 3.00: Tp= 1.29]
02204>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02205>       [InterEventTime=  12.00]
02206> R0091:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02207>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .084 1991.0410_ 4:00   46.13 .083     .000
02208>       [CN= 72.0: N= 3.00: Tp= 1.18]
02209>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02210>       [InterEventTime=  12.00]
02211> R0091:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02212>     ADD HYD               5.0 02:West-A        19.67     .120 1991.0410_ 4:10   52.68  n/a     .000
02213>                   +       5.0 02:West-B        14.48     .084 1991.0410_ 4:00   46.13  n/a     .000
02214>                 SUM=      5.0 01:West-Total    34.15     .204 1991.0410_ 4:05   49.90  n/a     .000
02215> #*****************************************************************************************************
02216> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02217> #*****************************************************************************************************
02218> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02219> #*****************************************************************************************************
02220> R0091:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02221>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .267 1991.0409_ 1:50  197.89 .356     .000
02222>       [CN=100.0: N= 3.00: Tp= 1.29]
02223>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02224>       [InterEventTime=  12.00]
02225> R0091:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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02226>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .211 1991.0409_ 1:45  197.89 .356     .000
02227>       [CN=100.0: N= 3.00: Tp= 1.18]
02228>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02229>       [InterEventTime=  12.00]
02230> R0091:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02231>     ADD HYD               5.0 02:INF-West-A    19.67     .267 1991.0409_ 1:50  197.89  n/a     .000
02232>                     +     5.0 02:INF-West-B    14.48     .211 1991.0409_ 1:45  197.89  n/a     .000
02233>                   SUM=    5.0 01:INF-West-T    34.15     .478 1991.0409_ 1:50  197.89  n/a     .000
02234> ###############################################################################
02235> # CONTINUOUS RAINFALL DATA
02236> ###############################################################################
02237>   ** END OF RUN :   91
02238>
02239> ************************************************************************************************
02240>
02241>
02242>
02243>
02244>
02245>  RUN#:COMMAND#
02246> R0092:C00001-----------------------------------------------------------------------------------
02247>      START
02248>       [TZERO =    .00 hrs on 19920101]
02249>       [METOUT=   2    (1=imperial, 2=metric output)]
02250>       [NSTORM=   0 ]
02251>       [NRUN  = 0092 ]
02252> #*****************************************************************************************************
02253> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02254> #*****************************************************************************************************
02255> #  Project Name: Barrhaven Conservancy Development
02256> #  Project Number: 1474
02257> #  Date        : 2021/Oct/18
02258> #  Modeller    : J.Burnett, P.Eng.
02259> #  Updated     : 2022/Dec/07 [JB]
02260> #  Updated     : 2022/Dec/13 [LP]
02261> #  Company     : J.F. Sabourin and Associates
02262> #  License #   : 2582634
02263> #*****************************************************************************************************
02264> # Ottawa International Airport (1967 - 2003)
02265> R0092:C00002-----------------------------------------------------------------------------------
02266>   *  READ AES DATA
02267>       [Filename  = YOW_1967_2007.123                                          ]
02268>       [Start_date= 1992.0101: End_date= 1992.1230]
02269>       {DT= 60.min: Length= 8760.hrs: WetHrs=  551: DryHrs= 8209: PTOT= 732.80}
02270>       Maximum average rainfall intensities over
02271>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02272>        31.50    18.00    13.30     7.22     4.14     2.26     1.51     1.51     1.02    mm/hr
02273>        31.50    36.00    39.90    43.30    49.70    54.20    54.20    72.60    73.60    mm
02274>       19920804 19920804 19920804 19920804 19920717 19920718 19920718 19920719 19920720  date
02275>       Number of rainfall events per following interevent time
02276>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02277>          190      151      132      100       84       69       55       47       38
02278>       Number of events with at least the following durations
02279>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02280>          189      109       70       22        5        1        0        0        0
02281> R0092:C00003-----------------------------------------------------------------------------------
02282>      COMPUTE API
02283>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02284>       {APImax= 97.62: APIavg= 20.33: APImin=  1.07}
02285> #*****************************************************************************************************
02286> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02287> #*****************************************************************************************************
02288> R0092:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02289>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .416 1992.0717_19:25  106.69 .146     .000
02290>       [CN= 76.0: N= 3.00: Tp= 1.29]
02291>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02292>       [InterEventTime=  12.00]
02293> R0092:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02294>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .292 1992.0717_19:20   94.75 .129     .000
02295>       [CN= 72.0: N= 3.00: Tp= 1.18]
02296>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02297>       [InterEventTime=  12.00]
02298> R0092:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02299>     ADD HYD               5.0 02:West-A        19.67     .416 1992.0717_19:25  106.69  n/a     .000
02300>                     +     5.0 02:West-B        14.48     .292 1992.0717_19:20   94.75  n/a     .000
02301>                   SUM=    5.0 01:West-Total    34.15     .708 1992.0717_19:25  101.63  n/a     .000
02302> #*****************************************************************************************************
02303> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02304> #*****************************************************************************************************
02305> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02306> #*****************************************************************************************************
02307> R0092:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02308>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .707 1992.0804_15:00  326.37 .445     .000
02309>       [CN=100.0: N= 3.00: Tp= 1.29]
02310>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02311>       [InterEventTime=  12.00]
02312> R0092:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02313>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .559 1992.0804_14:50  326.37 .445     .000
02314>       [CN=100.0: N= 3.00: Tp= 1.18]
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02315>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02316>       [InterEventTime=  12.00]
02317> R0092:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02318>     ADD HYD               5.0 02:INF-West-A    19.67     .707 1992.0804_15:00  326.37  n/a     .000
02319>                      +     5.0 02:INF-West-B    14.48     .559 1992.0804_14:50  326.37  n/a     .000
02320>                  SUM=      5.0 01:INF-West-T    34.15    1.264 1992.0804_14:55  326.37  n/a     .000
02321> ###############################################################################
02322> # CONTINUOUS RAINFALL DATA
02323> ###############################################################################
02324>   ** END OF RUN :   92
02325>
02326> ********************************************************************************************
02327>
02328>
02329>
02330>
02331>
02332>  RUN#:COMMAND#
02333> R0093:C00001-----------------------------------------------------------------------------------------
02334>      START
02335>       [TZERO =    .00 hrs on 19930101]
02336>       [METOUT=   2    (1=imperial, 2=metric output)]
02337>       [NSTORM=   0 ]
02338>       [NRUN  = 0093 ]
02339> #*****************************************************************************************************************
02340> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02341> #*****************************************************************************************************************
02342> #  Project Name: Barrhaven Conservancy Development
02343> #  Project Number: 1474
02344> #  Date        : 2021/Oct/18
02345> #  Modeller    : J.Burnett, P.Eng.
02346> #  Updated     : 2022/Dec/07 [JB]
02347> #  Updated     : 2022/Dec/13 [LP]
02348> #  Company     : J.F. Sabourin and Associates
02349> #  License #   : 2582634
02350> #*****************************************************************************************************************
02351> # Ottawa International Airport (1967 - 2003)
02352> R0093:C00002-----------------------------------------------------------------------------------------
02353>   *  READ AES DATA
02354>       [Filename  = YOW_1967_2007.123                                          ]
02355>       [Start_date= 1993.0101: End_date= 1993.1231]
02356>       {DT= 60.min: Length= 8760.hrs: WetHrs=  585: DryHrs= 8175: PTOT= 721.30}
02357>       Maximum average rainfall intensities over
02358>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02359>        12.60     6.60     4.83     3.72     3.58     2.31     1.61     1.21      .81    mm/hr
02360>        12.60    13.20    14.50    22.30    43.00    55.50    58.10    58.10    58.10    mm
02361>       19930703 19930703 19931127 19931128 19931128 19931128 19931128 19931128 19931129  date
02362>       Number of rainfall events per following interevent time
02363>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02364>          191      154      137      111       91       73       57       48       34
02365>       Number of events with at least the following durations
02366>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02367>          190      110       66       27        7        2        0        0        0
02368> R0093:C00003-----------------------------------------------------------------------------------------
02369>      COMPUTE API
02370>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02371>       {APImax= 66.56: APIavg= 20.01: APImin=   .11}
02372> #*****************************************************************************************************************
02373> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02374> #*****************************************************************************************************************
02375> R0093:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02376>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .153 1993.1128_ 7:40   71.45 .099     .000
02377>       [CN= 76.0: N= 3.00: Tp= 1.29]
02378>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02379>       [InterEventTime=  12.00]
02380> R0093:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02381>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .105 1993.1128_ 7:35   62.59 .087     .000
02382>       [CN= 72.0: N= 3.00: Tp= 1.18]
02383>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02384>       [InterEventTime=  12.00]
02385> R0093:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02386>     ADD HYD               5.0 02:West-A        19.67     .153 1993.1128_ 7:40   71.45  n/a     .000
02387>                      +     5.0 02:West-B        14.48     .105 1993.1128_ 7:35   62.59  n/a     .000
02388>                  SUM=      5.0 01:West-Total    34.15     .258 1993.1128_ 7:40   67.69  n/a     .000
02389> #*****************************************************************************************************************
02390> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02391> #*****************************************************************************************************************
02392> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02393> #*****************************************************************************************************************
02394> R0093:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02395>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .236 1993.1128_ 7:25  264.26 .366     .000
02396>       [CN=100.0: N= 3.00: Tp= 1.29]
02397>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02398>       [InterEventTime=  12.00]
02399> R0093:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02400>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .177 1993.1128_ 7:20  264.26 .366     .000
02401>       [CN=100.0: N= 3.00: Tp= 1.18]
02402>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02403>       [InterEventTime=  12.00]
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02404> R0093:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02405>     ADD HYD               5.0 02:INF-West-A    19.67     .236 1993.1128_ 7:25  264.26  n/a     .000
02406>                       +     5.0 02:INF-West-B    14.48     .177 1993.1128_ 7:20  264.26  n/a     .000
02407>                   SUM=      5.0 01:INF-West-T    34.15     .413 1993.1128_ 7:25  264.26  n/a     .000
02408> ###############################################################################
02409> # CONTINUOUS RAINFALL DATA
02410> ###############################################################################
02411>   ** END OF RUN :   93
02412>
02413> *************************************************************************************************
02414>
02415>
02416>
02417>
02418>
02419>  RUN#:COMMAND#
02420> R0094:C00001-----------------------------------------------------------------------------------------
02421>      START
02422>       [TZERO =    .00 hrs on 19940101]
02423>       [METOUT=   2    (1=imperial, 2=metric output)]
02424>       [NSTORM=   0 ]
02425>       [NRUN  = 0094 ]
02426> #*****************************************************************************************************
02427> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02428> #*****************************************************************************************************
02429> #  Project Name: Barrhaven Conservancy Development
02430> #  Project Number: 1474
02431> #  Date        : 2021/Oct/18
02432> #  Modeller    : J.Burnett, P.Eng.
02433> #  Updated     : 2022/Dec/07 [JB]
02434> #  Updated     : 2022/Dec/13 [LP]
02435> #  Company     : J.F. Sabourin and Associates
02436> #  License #   : 2582634
02437> #*****************************************************************************************************
02438> # Ottawa International Airport (1967 - 2003)
02439> R0094:C00002-----------------------------------------------------------------------------------------
02440>   *  READ AES DATA
02441>       [Filename  = YOW_1967_2007.123                                          ]
02442>       [Start_date= 1994.0101: End_date= 1994.1231]
02443>       {DT= 60.min: Length= 8760.hrs: WetHrs=  342: DryHrs= 8418: PTOT= 540.20}
02444>       Maximum average rainfall intensities over
02445>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02446>        22.60    11.90     8.43     5.42     2.92     1.79     1.19      .89     1.15    mm/hr
02447>        22.60    23.80    25.30    32.50    35.00    42.90    42.90    42.90    82.60    mm
02448>       19940629 19940629 19940627 19940625 19940625 19940625 19940626 19940626 19940627  date
02449>       Number of rainfall events per following interevent time
02450>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02451>          138      115      101       79       62       48       39       34       26
02452>       Number of events with at least the following durations
02453>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02454>          137       72       48       12        1        0        0        0        0
02455> R0094:C00003-----------------------------------------------------------------------------------------
02456>      COMPUTE API
02457>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02458>       {APImax= 97.84: APIavg= 15.35: APImin=   .02}
02459> #*****************************************************************************************************
02460> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02461> #*****************************************************************************************************
02462> R0094:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02463>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .153 1994.0627_11:40   67.89 .126     .000
02464>       [CN= 76.0: N= 3.00: Tp= 1.29]
02465>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02466>       [InterEventTime=  12.00]
02467> R0094:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02468>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .103 1994.0627_11:35   59.78 .111     .000
02469>       [CN= 72.0: N= 3.00: Tp= 1.18]
02470>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02471>       [InterEventTime=  12.00]
02472> R0094:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02473>     ADD HYD               5.0 02:West-A        19.67     .153 1994.0627_11:40   67.89  n/a     .000
02474>                       +     5.0 02:West-B        14.48     .103 1994.0627_11:35   59.78  n/a     .000
02475>                   SUM=      5.0 01:West-Total    34.15     .256 1994.0627_11:35   64.45  n/a     .000
02476> #*****************************************************************************************************
02477> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02478> #*****************************************************************************************************
02479> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02480> #*****************************************************************************************************
02481> R0094:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02482>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .383 1994.0627_11:05  227.40 .421     .000
02483>       [CN=100.0: N= 3.00: Tp= 1.29]
02484>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02485>       [InterEventTime=  12.00]
02486> R0094:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02487>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .299 1994.0629_13:50  227.40 .421     .000
02488>       [CN=100.0: N= 3.00: Tp= 1.18]
02489>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02490>       [InterEventTime=  12.00]
02491> R0094:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02492>     ADD HYD               5.0 02:INF-West-A    19.67     .383 1994.0627_11:05  227.40  n/a     .000
```

```
02493>                    +     5.0 02:INF-West-B    14.48     .299 1994.0629_13:50  227.40  n/a     .000
02494>                  SUM=    5.0 01:INF-West-T    34.15     .675 1994.0627_11:00  227.40  n/a     .000
02495> ###############################################################################
02496> # CONTINUOUS RAINFALL DATA
02497> ###############################################################################
02498>   ** END OF RUN :   94
02499>
02500> ****************************************************************************************************
02501>
02502>
02503>
02504>
02505>
02506>  RUN#:COMMAND#
02507> R0095:C00001-----------------------------------------------------------------------------------------
02508>      START
02509>       [TZERO =    .00 hrs on 19950101]
02510>       [METOUT=   2    (1=imperial, 2=metric output)]
02511>       [NSTORM=   0 ]
02512>       [NRUN  = 0095 ]
02513> #****************************************************************************************************
02514> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02515> #****************************************************************************************************
02516> #  Project Name: Barrhaven Conservancy Development
02517> #  Project Number: 1474
02518> #  Date        : 2021/Oct/18
02519> #  Modeller    : J.Burnett, P.Eng.
02520> #  Updated     : 2022/Dec/07 [JB]
02521> #  Updated     : 2022/Dec/13 [LP]
02522> #  Company     : J.F. Sabourin and Associates
02523> #  License #   : 2582634
02524> #****************************************************************************************************
02525> # Ottawa International Airport (1967 - 2003)
02526> R0095:C00002-----------------------------------------------------------------------------------------
02527>   *  READ AES DATA
02528>       [Filename  = YOW_1967_2007.123                                        ]
02529>       [Start_date= 1995.0101: End_date= 1995.1231]
02530>       {DT= 60.min: Length= 8040.hrs: WetHrs=  332: DryHrs= 7708: PTOT= 538.50}
02531>       Maximum average rainfall intensities over
02532>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02533>        16.90    13.25    11.33     8.98     6.35     3.48     2.95     2.21     1.48    mm/hr
02534>        16.90    26.50    34.00    53.90    76.20    83.40   106.20   106.20   106.20    mm
02535>       19950603 19950603 19951006 19951006 19951006 19951006 19951007 19951007 19951008  date
02536>       Number of rainfall events per following interevent time
02537>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02538>           91       73       65       55       47       41       34       31       25
02539>       Number of events with at least the following durations
02540>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02541>           90       54       35       16        7        1        0        0        0
02542> R0095:C00003-----------------------------------------------------------------------------------------
02543>      COMPUTE API
02544>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02545>       {APImax= 99.57: APIavg= 16.58: APImin=   .00}
02546> #****************************************************************************************************
02547> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02548> #****************************************************************************************************
02549> R0095:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02550>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .427 1995.0603_ 9:35  172.16 .320     .000
02551>       [CN= 76.0: N= 3.00: Tp= 1.29]
02552>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02553>       [InterEventTime=  12.00]
02554> R0095:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02555>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .310 1995.0603_ 9:30  159.14 .296     .000
02556>       [CN= 72.0: N= 3.00: Tp= 1.18]
02557>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02558>       [InterEventTime=  12.00]
02559> R0095:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02560>     ADD HYD               5.0 02:West-A        19.67     .427 1995.0603_ 9:35  172.16  n/a     .000
02561>                       +   5.0 02:West-B        14.48     .310 1995.0603_ 9:30  159.14  n/a     .000
02562>                     SUM=  5.0 01:West-Total    34.15     .737 1995.0603_ 9:35  166.64  n/a     .000
02563> #****************************************************************************************************
02564> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02565> #****************************************************************************************************
02566> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02567> #****************************************************************************************************
02568> R0095:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02569>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .615 1995.1006_ 6:15  327.35 .608     .000
02570>       [CN=100.0: N= 3.00: Tp= 1.29]
02571>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02572>       [InterEventTime=  12.00]
02573> R0095:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02574>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .462 1995.1006_ 6:05  327.35 .608     .000
02575>       [CN=100.0: N= 3.00: Tp= 1.18]
02576>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02577>       [InterEventTime=  12.00]
02578> R0095:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02579>     ADD HYD               5.0 02:INF-West-A    19.67     .615 1995.1006_ 6:15  327.35  n/a     .000
02580>                       +   5.0 02:INF-West-B    14.48     .462 1995.1006_ 6:05  327.35  n/a     .000
02581>                     SUM=  5.0 01:INF-West-T    34.15    1.076 1995.1006_ 6:10  327.35  n/a     .000
```

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02582> ###############################################################################
02583> # CONTINUOUS RAINFALL DATA
02584> ###############################################################################
02585>   ** END OF RUN :   95
02586>
02587> *************************************************************************************************
02588>
02589>
02590>
02591>
02592>
02593>  RUN#:COMMAND#
02594> R0096:C00001-----------------------------------------------------------------------------------------
02595>      START
02596>       [TZERO =    .00 hrs on 19960101]
02597>       [METOUT=   2    (1=imperial, 2=metric output)]
02598>       [NSTORM=   0 ]
02599>       [NRUN  = 0096 ]
02600> #*************************************************************************************************************
02601> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02602> #*************************************************************************************************************
02603> #  Project Name: Barrhaven Conservancy Development
02604> #  Project Number: 1474
02605> #  Date         : 2021/Oct/18
02606> #  Modeller     : J.Burnett, P.Eng.
02607> #  Updated      : 2022/Dec/07 [JB]
02608> #  Updated      : 2022/Dec/13 [LP]
02609> #  Company      : J.F. Sabourin and Associates
02610> #  License #    : 2582634
02611> #*************************************************************************************************************
02612> # Ottawa International Airport (1967 - 2003)
02613> R0096:C00002-----------------------------------------------------------------------------------------
02614>   *  READ AES DATA
02615>       [Filename  = YOW_1967_2007.123                                          ]
02616>       [Start_date= 1996.0101: End_date= 1996.1230]
02617>       {DT= 60.min: Length= 6552.hrs: WetHrs=  387: DryHrs= 6165: PTOT= 512.20}
02618>       Maximum average rainfall intensities over
02619>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02620>        18.50    13.55     9.03     5.42     2.93     1.84     1.32     1.02      .70    mm/hr
02621>        18.50    27.10    27.10    32.50    35.10    44.10    47.50    49.00    50.30    mm
02622>       19960731 19960731 19960731 19960731 19960731 19961109 19961109 19961109 19961109  date
02623>       Number of rainfall events per following interevent time
02624>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02625>          132      104       93       71       59       43       36       31       24
02626>       Number of events with at least the following durations
02627>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02628>          131       72       50       19        2        1        0        0        0
02629> R0096:C00003-----------------------------------------------------------------------------------------
02630>      COMPUTE API
02631>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02632>       {APImax= 63.22: APIavg= 19.39: APImin=   .71}
02633> #*************************************************************************************************************
02634> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02635> #*************************************************************************************************************
02636> R0096:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02637>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .156 1996.0731_16:40   53.26 .104     .000
02638>       [CN= 76.0: N= 3.00: Tp= 1.29]
02639>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02640>       [InterEventTime=  12.00]
02641> R0096:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02642>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .106 1996.0731_16:35   46.54 .091     .000
02643>       [CN= 72.0: N= 3.00: Tp= 1.18]
02644>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02645>       [InterEventTime=  12.00]
02646> R0096:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02647>     ADD HYD               5.0 02:West-A        19.67     .156 1996.0731_16:40   53.26  n/a     .000
02648>                       +     5.0 02:West-B        14.48     .106 1996.0731_16:35   46.54  n/a     .000
02649>                     SUM=    5.0 01:West-Total    34.15     .261 1996.0731_16:35   50.41  n/a     .000
02650> #*************************************************************************************************************
02651> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02652> #*************************************************************************************************************
02653> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02654> #*************************************************************************************************************
02655> R0096:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02656>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .438 1996.0731_16:25  195.06 .381     .000
02657>       [CN=100.0: N= 3.00: Tp= 1.29]
02658>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02659>       [InterEventTime=  12.00]
02660> R0096:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02661>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .342 1996.0731_16:20  195.06 .381     .000
02662>       [CN=100.0: N= 3.00: Tp= 1.18]
02663>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02664>       [InterEventTime=  12.00]
02665> R0096:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02666>     ADD HYD               5.0 02:INF-West-A    19.67     .438 1996.0731_16:25  195.06  n/a     .000
02667>                       +     5.0 02:INF-West-B    14.48     .342 1996.0731_16:20  195.06  n/a     .000
02668>                     SUM=    5.0 01:INF-West-T    34.15     .778 1996.0731_16:25  195.06  n/a     .000
02669> ###############################################################################
02670> # CONTINUOUS RAINFALL DATA
```

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02671> ###############################################################################
02672>   ** END OF RUN :   96
02673>
02674> ************************************************************************************************
02675>
02676>
02677>
02678>
02679>
02680>  RUN#:COMMAND#
02681> R0097:C00001-------------------------------------------------------------------------------------
02682>      START
02683>       [TZERO =    .00 hrs on 19970101]
02684>       [METOUT=   2    (1=imperial, 2=metric output)]
02685>       [NSTORM=   0 ]
02686>       [NRUN  = 0097 ]
02687> #*****************************************************************************************************************
02688> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02689> #*****************************************************************************************************************
02690> #  Project Name: Barrhaven Conservancy Development
02691> #  Project Number: 1474
02692> #  Date        : 2021/Oct/18
02693> #  Modeller    : J.Burnett, P.Eng.
02694> #  Updated     : 2022/Dec/07 [JB]
02695> #  Updated     : 2022/Dec/13 [LP]
02696> #  Company     : J.F. Sabourin and Associates
02697> #  License #   : 2582634
02698> #*****************************************************************************************************************
02699> # Ottawa International Airport (1967 - 2003)
02700> R0097:C00002-------------------------------------------------------------------------------------
02701>   *  READ AES DATA
02702>       [Filename  = YOW_1967_2007.123                                          ]
02703>       [Start_date= 1997.0101: End_date= 1997.1231]
02704>       {DT= 60.min: Length= 8040.hrs: WetHrs=  379: DryHrs= 7661: PTOT= 433.20}
02705>       Maximum average rainfall intensities over
02706>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02707>        12.50     7.60     5.67     4.43     2.91     1.68     1.12      .84      .63    mm/hr
02708>        12.50    15.20    17.00    26.60    34.90    40.40    40.40    40.40    45.30    mm
02709>       19970622 19970622 19970622 19970221 19970222 19970222 19970222 19970222 19970222  date
02710>       Number of rainfall events per following interevent time
02711>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02712>          113       92       83       67       61       55       48       43       30
02713>       Number of events with at least the following durations
02714>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02715>          112       70       46       20        4        0        0        0        0
02716> R0097:C00003-------------------------------------------------------------------------------------
02717>      COMPUTE API
02718>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02719>       {APImax= 50.00: APIavg= 13.66: APImin=   .27}
02720> #*****************************************************************************************************************
02721> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02722> #*****************************************************************************************************************
02723> R0097:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02724>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .093 1997.0221_21:45   32.31 .075     .000
02725>       [CN= 76.0: N= 3.00: Tp= 1.29]
02726>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02727>       [InterEventTime=  12.00]
02728> R0097:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02729>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .062 1997.0221_21:40   27.92 .064     .000
02730>       [CN= 72.0: N= 3.00: Tp= 1.18]
02731>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02732>       [InterEventTime=  12.00]
02733> R0097:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02734>     ADD HYD               5.0 02:West-A        19.67     .093 1997.0221_21:45   32.31  n/a     .000
02735>                       +     5.0 02:West-B        14.48     .062 1997.0221_21:40   27.92  n/a     .000
02736>                   SUM=      5.0 01:West-Total    34.15     .155 1997.0221_21:40   30.45  n/a     .000
02737> #*****************************************************************************************************************
02738> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02739> #*****************************************************************************************************************
02740> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02741> #*****************************************************************************************************************
02742> R0097:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02743>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .272 1997.0221_21:20  161.58 .373     .000
02744>       [CN=100.0: N= 3.00: Tp= 1.29]
02745>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02746>       [InterEventTime=  12.00]
02747> R0097:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02748>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .204 1997.0221_21:20  161.58 .373     .000
02749>       [CN=100.0: N= 3.00: Tp= 1.18]
02750>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02751>       [InterEventTime=  12.00]
02752> R0097:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02753>     ADD HYD               5.0 02:INF-West-A    19.67     .272 1997.0221_21:20  161.58  n/a     .000
02754>                       +     5.0 02:INF-West-B    14.48     .204 1997.0221_21:20  161.58  n/a     .000
02755>                   SUM=      5.0 01:INF-West-T    34.15     .476 1997.0221_21:20  161.58  n/a     .000
02756> ###############################################################################
02757> # CONTINUOUS RAINFALL DATA
02758> ###############################################################################
02759>   ** END OF RUN :   97
```

```
02760>
02761> ********************************************************************************************
02762>
02763>
02764>
02765>
02766>
02767>  RUN#:COMMAND#
02768> R0098:C00001-------------------------------------------------------------------------------
02769>      START
02770>       [TZERO =    .00 hrs on 19980101]
02771>       [METOUT=   2    (1=imperial, 2=metric output)]
02772>       [NSTORM=   0 ]
02773>       [NRUN  = 0098 ]
02774> #*******************************************************************************************************************
02775> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02776> #*******************************************************************************************************************
02777> #  Project Name: Barrhaven Conservancy Development
02778> #  Project Number: 1474
02779> #  Date        : 2021/Oct/18
02780> #  Modeller    : J.Burnett, P.Eng.
02781> #  Updated     : 2022/Dec/07 [JB]
02782> #  Updated     : 2022/Dec/13 [LP]
02783> #  Company     : J.F. Sabourin and Associates
02784> #  License #   : 2582634
02785> #*******************************************************************************************************************
02786> # Ottawa International Airport (1967 - 2003)
02787> R0098:C00002-------------------------------------------------------------------------------
02788>   *  READ AES DATA
02789>       [Filename  = YOW_1967_2007.123                                          ]
02790>       [Start_date= 1998.0101: End_date= 1998.1231]
02791>       {DT= 60.min: Length= 5088.hrs: WetHrs=  291: DryHrs= 4797: PTOT= 440.30}
02792>       Maximum average rainfall intensities over
02793>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02794>        15.80     8.90     7.60     4.00     2.54     1.82     1.27      .95      .76    mm/hr
02795>        15.80    17.80    22.80    24.00    30.50    43.60    45.80    45.80    54.60    mm
02796>       19980716 19980627 19980927 19980927 19980927 19980927 19980928 19980928 19980615  date
02797>       Number of rainfall events per following interevent time
02798>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02799>          126      104       95       78       63       42       37       32       21
02800>       Number of events with at least the following durations
02801>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02802>          125       64       43        8        1        0        0        0        0
02803> R0098:C00003-------------------------------------------------------------------------------
02804>      COMPUTE API
02805>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02806>       {APImax= 57.22: APIavg= 21.28: APImin=  1.69}
02807> #*******************************************************************************************************************
02808> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02809> #*******************************************************************************************************************
02810> R0098:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02811>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .099 1998.0927_15:15   37.63 .085     .000
02812>       [CN= 76.0: N= 3.00: Tp= 1.29]
02813>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02814>       [InterEventTime=  12.00]
02815> R0098:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02816>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .069 1998.0927_15:10   32.64 .074     .000
02817>       [CN= 72.0: N= 3.00: Tp= 1.18]
02818>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02819>       [InterEventTime=  12.00]
02820> R0098:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02821>     ADD HYD               5.0 02:West-A        19.67     .099 1998.0927_15:15   37.63  n/a     .000
02822>                       +     5.0 02:West-B        14.48     .069 1998.0927_15:10   32.64  n/a     .000
02823>                   SUM=      5.0 01:West-Total    34.15     .167 1998.0927_15:10   35.52  n/a     .000
02824> #*******************************************************************************************************************
02825> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02826> #*******************************************************************************************************************
02827> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02828> #*******************************************************************************************************************
02829> R0098:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02830>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .285 1998.0627_ 2:00  163.10 .370     .000
02831>       [CN=100.0: N= 3.00: Tp= 1.29]
02832>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02833>       [InterEventTime=  12.00]
02834> R0098:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02835>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .226 1998.0627_ 1:55  163.10 .370     .000
02836>       [CN=100.0: N= 3.00: Tp= 1.18]
02837>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02838>       [InterEventTime=  12.00]
02839> R0098:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02840>     ADD HYD               5.0 02:INF-West-A    19.67     .285 1998.0627_ 2:00  163.11  n/a     .000
02841>                       +     5.0 02:INF-West-B    14.48     .226 1998.0627_ 1:55  163.10  n/a     .000
02842>                   SUM=      5.0 01:INF-West-T    34.15     .509 1998.0627_ 1:55  163.10  n/a     .000
02843> ###########################################################################
02844> # CONTINUOUS RAINFALL DATA
02845> ###########################################################################
02846>   ** END OF RUN :   98
02847>
02848> ********************************************************************************************
```

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02849>
02850>
02851>
02852>
02853>
02854>  RUN#:COMMAND#
02855> R0099:C00001-------------------------------------------------------------------------------------
02856>      START
02857>       [TZERO =    .00 hrs on 19990101]
02858>       [METOUT=   2    (1=imperial, 2=metric output)]
02859>       [NSTORM=   0 ]
02860>       [NRUN  = 0099 ]
02861> #*************************************************************************************************
02862> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02863> #*************************************************************************************************
02864> #  Project Name: Barrhaven Conservancy Development
02865> #  Project Number: 1474
02866> #  Date        : 2021/Oct/18
02867> #  Modeller    : J.Burnett, P.Eng.
02868> #  Updated     : 2022/Dec/07 [JB]
02869> #  Updated     : 2022/Dec/13 [LP]
02870> #  Company     : J.F. Sabourin and Associates
02871> #  License #   : 2582634
02872> #*************************************************************************************************
02873> # Ottawa International Airport (1967 - 2003)
02874> R0099:C00002-------------------------------------------------------------------------------------
02875>   *  READ AES DATA
02876>       [Filename  = YOW_1967_2007.123                                          ]
02877>       [Start_date= 1999.0101: End_date= 1999.1231]
02878>       {DT= 60.min: Length= 4440.hrs: WetHrs=  247: DryHrs= 4193: PTOT= 424.40}
02879>       Maximum average rainfall intensities over
02880>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02881>        17.50    10.10     9.03     6.57     3.31     1.65     1.45     1.22      .97    mm/hr
02882>        17.50    20.20    27.10    39.40    39.70    39.70    52.20    58.60    69.50    mm
02883>       19990717 19990717 19990906 19990906 19990906 19990906 19990907 19990908 19990908  date
02884>       Number of rainfall events per following interevent time
02885>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02886>          102       80       70       63       56       39       31       28       18
02887>       Number of events with at least the following durations
02888>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02889>          101       57       31       10        1        0        0        0        0
02890> R0099:C00003-------------------------------------------------------------------------------------
02891>      COMPUTE API
02892>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02893>       {APImax= 69.51: APIavg= 23.97: APImin=  1.93}
02894> #*************************************************************************************************
02895> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02896> #*************************************************************************************************
02897> R0099:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02898>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .141 1999.0906_10:20   38.58 .091     .000
02899>       [CN= 76.0: N= 3.00: Tp= 1.29]
02900>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02901>       [InterEventTime=  12.00]
02902> R0099:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02903>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .093 1999.0906_10:15   33.50 .079     .000
02904>       [CN= 72.0: N= 3.00: Tp= 1.18]
02905>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02906>       [InterEventTime=  12.00]
02907> R0099:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02908>     ADD HYD               5.0 02:West-A        19.67     .141 1999.0906_10:20   38.58  n/a     .000
02909>                       +     5.0 02:West-B        14.48     .093 1999.0906_10:15   33.50  n/a     .000
02910>                   SUM=      5.0 01:West-Total    34.15     .234 1999.0906_10:20   36.42  n/a     .000
02911> #*************************************************************************************************
02912> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02913> #*************************************************************************************************
02914> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02915> #*************************************************************************************************
02916> R0099:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02917>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .419 1999.0906_ 9:15  171.71 .405     .000
02918>       [CN=100.0: N= 3.00: Tp= 1.29]
02919>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02920>       [InterEventTime=  12.00]
02921> R0099:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02922>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .319 1999.0906_ 9:10  171.71 .405     .000
02923>       [CN=100.0: N= 3.00: Tp= 1.18]
02924>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
02925>       [InterEventTime=  12.00]
02926> R0099:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02927>     ADD HYD               5.0 02:INF-West-A    19.67     .419 1999.0906_ 9:15  171.71  n/a     .000
02928>                       +     5.0 02:INF-West-B    14.48     .319 1999.0906_ 9:10  171.71  n/a     .000
02929>                   SUM=      5.0 01:INF-West-T    34.15     .737 1999.0906_ 9:15  171.71  n/a     .000
02930> ###############################################################################
02931> # CONTINUOUS RAINFALL DATA
02932> ###############################################################################
02933>   ** END OF RUN :   99
02934>
02935> *************************************************************************************************
02936>
02937>
```

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02938>
02939>
02940>
02941>  RUN#:COMMAND#
02942> R0100:C00001-------------------------------------------------------------------------------------------
02943>      START
02944>       [TZERO =    .00 hrs on 20000101]
02945>       [METOUT=   2    (1=imperial, 2=metric output)]
02946>       [NSTORM=   0 ]
02947>       [NRUN  = 0100 ]
02948> #*************************************************************************************************************
02949> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02950> #*************************************************************************************************************
02951> #  Project Name: Barrhaven Conservancy Development
02952> #  Project Number: 1474
02953> #  Date        : 2021/Oct/18
02954> #  Modeller    : J.Burnett, P.Eng.
02955> #  Updated     : 2022/Dec/07 [JB]
02956> #  Updated     : 2022/Dec/13 [LP]
02957> #  Company     : J.F. Sabourin and Associates
02958> #  License #   : 2582634
02959> #*************************************************************************************************************
02960> # Ottawa International Airport (1967 - 2003)
02961> R0100:C00002-------------------------------------------------------------------------------------------
02962>   *  READ AES DATA
02963>       [Filename  = YOW_1967_2007.123                                          ]
02964>       [Start_date= 2000.0101: End_date= 2000.1230]
02965>       {DT= 60.min: Length= 5160.hrs: WetHrs=  401: DryHrs= 4759: PTOT= 535.90}
02966>       Maximum average rainfall intensities over
02967>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02968>        14.70     9.60     8.03     6.43     3.89     1.95     1.30     1.03      .84    mm/hr
02969>        14.70    19.20    24.10    38.60    46.70    46.70    46.80    49.30    60.40    mm
02970>       20000625 20000625 20000625 20000625 20000625 20000625 20000626 20000510 20000511  date
02971>       Number of rainfall events per following interevent time
02972>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02973>          156      125      110       86       67       46       34       30       23
02974>       Number of events with at least the following durations
02975>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02976>          155       82       49       16        2        0        0        0        0
02977> R0100:C00003-------------------------------------------------------------------------------------------
02978>      COMPUTE API
02979>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02980>       {APImax= 76.65: APIavg= 25.66: APImin=  5.70}
02981> #*************************************************************************************************************
02982> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02983> #*************************************************************************************************************
02984> R0100:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02985>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .291 2000.0625_10:50   63.91 .119     .000
02986>       [CN= 76.0: N= 3.00: Tp= 1.29]
02987>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02988>       [InterEventTime=  12.00]
02989> R0100:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02990>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .205 2000.0625_10:45   56.28 .105     .000
02991>       [CN= 72.0: N= 3.00: Tp= 1.18]
02992>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02993>       [InterEventTime=  12.00]
02994> R0100:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02995>     ADD HYD               5.0 02:West-A        19.67     .291 2000.0625_10:50   63.91  n/a     .000
02996>                    +      5.0 02:West-B        14.48     .205 2000.0625_10:45   56.28  n/a     .000
02997>                  SUM=     5.0 01:West-Total    34.15     .496 2000.0625_10:45   60.67  n/a     .000
02998> #*************************************************************************************************************
02999> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03000> #*************************************************************************************************************
03001> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03002> #*************************************************************************************************************
03003> R0100:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03004>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .460 2000.0625_10:35  214.65 .401     .000
03005>       [CN=100.0: N= 3.00: Tp= 1.29]
03006>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
03007>       [InterEventTime=  12.00]
03008> R0100:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03009>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .353 2000.0625_10:35  214.65 .401     .000
03010>       [CN=100.0: N= 3.00: Tp= 1.18]
03011>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
03012>       [InterEventTime=  12.00]
03013> R0100:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03014>     ADD HYD               5.0 02:INF-West-A    19.67     .460 2000.0625_10:35  214.65  n/a     .000
03015>                    +      5.0 02:INF-West-B    14.48     .353 2000.0625_10:35  214.65  n/a     .000
03016>                  SUM=     5.0 01:INF-West-T    34.15     .813 2000.0625_10:35  214.65  n/a     .000
03017> ###########################################################################
03018> # CONTINUOUS RAINFALL DATA
03019> ###########################################################################
03020>   ** END OF RUN :  101
03021>
03022> *************************************************************************************************************
03023>
03024>
03025>
03026>
```

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03027>
03028>  RUN#:COMMAND#
03029> R0102:C00001-------------------------------------------------------------------------------------------
03030>       START
03031>         [TZERO =    .00 hrs on 20020101]
03032>         [METOUT=   2    (1=imperial, 2=metric output)]
03033>         [NSTORM=   0 ]
03034>         [NRUN  = 0102 ]
03035> #*************************************************************************************************************
03036> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03037> #*************************************************************************************************************
03038> #  Project Name: Barrhaven Conservancy Development
03039> #  Project Number: 1474
03040> #  Date        : 2021/Oct/18
03041> #  Modeller    : J.Burnett, P.Eng.
03042> #  Updated     : 2022/Dec/07 [JB]
03043> #  Updated     : 2022/Dec/13 [LP]
03044> #  Company     : J.F. Sabourin and Associates
03045> #  License #   : 2582634
03046> #*************************************************************************************************************
03047> # Ottawa International Airport (1967 - 2003)
03048> R0102:C00002-------------------------------------------------------------------------------------------
03049>   *  READ AES DATA
03050>         [Filename  = YOW_1967_2007.123                                          ]
03051>         [Start_date= 2002.0101: End_date= 2002.1231]
03052>         {DT= 60.min: Length= 5088.hrs: WetHrs=  304: DryHrs= 4784: PTOT= 551.50}
03053>         Maximum average rainfall intensities over
03054>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03055>          45.00    26.75    18.40     9.48     4.74     2.48     2.08     1.56     1.04    mm/hr
03056>          45.00    53.50    55.20    56.90    56.90    59.50    74.90    74.90    74.90    mm
03057>         20020627 20020627 20020627 20020627 20020627 20020627 20020627 20020628 20020629  date
03058>         Number of rainfall events per following interevent time
03059>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03060>            100       83       78       56       47       41       36       34       25
03061>         Number of events with at least the following durations
03062>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03063>            100       59       33       13        5        0        0        0        0
03064> R0102:C00003-------------------------------------------------------------------------------------------
03065>       COMPUTE API
03066>         [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03067>         {APImax=114.06: APIavg= 26.37: APImin=  4.40}
03068> #*************************************************************************************************************
03069> #                   Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03070> #*************************************************************************************************************
03071> R0102:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03072>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .618 2002.0627_15:00  114.49 .208     .000
03073>         [CN= 76.0: N= 3.00: Tp= 1.29]
03074>         [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03075>         [InterEventTime=  12.00]
03076> R0102:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03077>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .449 2002.0627_14:55  103.15 .187     .000
03078>         [CN= 72.0: N= 3.00: Tp= 1.18]
03079>         [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03080>         [InterEventTime=  12.00]
03081> R0102:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03082>     ADD HYD               5.0 02:West-A        19.67     .618 2002.0627_15:00  114.49  n/a     .000
03083>                       +     5.0 02:West-B        14.48     .449 2002.0627_14:55  103.15  n/a     .000
03084>                   SUM=      5.0 01:West-Total    34.15    1.064 2002.0627_15:00  109.69  n/a     .000
03085> #*************************************************************************************************************
03086> #                   Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03087> #*************************************************************************************************************
03088> #                   Set infiltration to 0 (CN = 99.99) for water balance analysis
03089> #*************************************************************************************************************
03090> R0102:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03091>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67    1.037 2002.0627_14:50  294.04 .533     .000
03092>         [CN=100.0: N= 3.00: Tp= 1.29]
03093>         [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
03094>         [InterEventTime=  12.00]
03095> R0102:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03096>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .824 2002.0627_14:45  294.04 .533     .000
03097>         [CN=100.0: N= 3.00: Tp= 1.18]
03098>         [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
03099>         [InterEventTime=  12.00]
03100> R0102:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03101>     ADD HYD               5.0 02:INF-West-A    19.67    1.037 2002.0627_14:50  294.04  n/a     .000
03102>                       +     5.0 02:INF-West-B    14.48     .824 2002.0627_14:45  294.04  n/a     .000
03103>                   SUM=      5.0 01:INF-West-T    34.15    1.857 2002.0627_14:45  294.04  n/a     .000
03104> ###########################################################################
03105> # CONTINUOUS RAINFALL DATA
03106> ###########################################################################
03107>   ** END OF RUN :  102
03108>
03109> *************************************************************************************************************
03110>
03111>
03112>
03113>
03114>
03115>  RUN#:COMMAND#
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03116> R0103:C00001-------------------------------------------------------------------------------------------
03117>      START
03118>       [TZERO =    .00 hrs on 20030101]
03119>       [METOUT=   2    (1=imperial, 2=metric output)]
03120>       [NSTORM=   0 ]
03121>       [NRUN  = 0103 ]
03122> #*********************************************************************************************************
03123> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03124> #*********************************************************************************************************
03125> #  Project Name: Barrhaven Conservancy Development
03126> #  Project Number: 1474
03127> #  Date        : 2021/Oct/18
03128> #  Modeller    : J.Burnett, P.Eng.
03129> #  Updated     : 2022/Dec/07 [JB]
03130> #  Updated     : 2022/Dec/13 [LP]
03131> #  Company     : J.F. Sabourin and Associates
03132> #  License #   : 2582634
03133> #*********************************************************************************************************
03134> # Ottawa International Airport (1967 - 2003)
03135> R0103:C00002-------------------------------------------------------------------------------------------
03136>   *  READ AES DATA
03137>       [Filename  = YOW_1967_2007.123                                          ]
03138>       [Start_date= 2003.0101: End_date= 2003.1231]
03139>       {DT= 60.min: Length= 4440.hrs: WetHrs=  406: DryHrs= 4034: PTOT= 554.60}
03140>       Maximum average rainfall intensities over
03141>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03142>        15.10    10.00     7.13     4.28     3.18     1.86     1.25      .94      .81    mm/hr
03143>        15.10    20.00    21.40    25.70    38.20    44.60    44.90    45.10    58.30    mm
03144>       20030711 20030711 20030711 20030711 20031021 20031015 20030525 20030526 20030527  date
03145>       Number of rainfall events per following interevent time
03146>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03147>          145      127      109       86       64       45       38       25       15
03148>       Number of events with at least the following durations
03149>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03150>          144       80       43       13        5        1        0        0        0
03151> R0103:C00003-------------------------------------------------------------------------------------------
03152>      COMPUTE API
03153>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03154>       {APImax= 72.10: APIavg= 28.54: APImin=  4.70}
03155> #*********************************************************************************************************
03156> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03157> #*********************************************************************************************************
03158> R0103:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03159>     CONTINUOUS NASHYD     5.0 01:West-A        19.67     .211 2003.0711_17:50   86.07 .155     .000
03160>       [CN= 76.0: N= 3.00: Tp= 1.29]
03161>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03162>       [InterEventTime=  12.00]
03163> R0103:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03164>     CONTINUOUS NASHYD     5.0 01:West-B        14.48     .147 2003.0711_17:45   76.16 .137     .000
03165>       [CN= 72.0: N= 3.00: Tp= 1.18]
03166>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03167>       [InterEventTime=  12.00]
03168> R0103:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03169>     ADD HYD               5.0 02:West-A        19.67     .211 2003.0711_17:50   86.07  n/a     .000
03170>                     +     5.0 02:West-B        14.48     .147 2003.0711_17:45   76.16  n/a     .000
03171>                   SUM=    5.0 01:West-Total    34.15     .358 2003.0711_17:50   81.87  n/a     .000
03172> #*********************************************************************************************************
03173> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03174> #*********************************************************************************************************
03175> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03176> #*********************************************************************************************************
03177> R0103:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03178>     CONTINUOUS NASHYD     5.0 01:INF-West-A    19.67     .430 2003.0711_17:40  251.88 .454     .000
03179>       [CN=100.0: N= 3.00: Tp= 1.29]
03180>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
03181>       [InterEventTime=  12.00]
03182> R0103:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03183>     CONTINUOUS NASHYD     5.0 01:INF-West-B    14.48     .337 2003.0711_17:35  251.88 .454     .000
03184>       [CN=100.0: N= 3.00: Tp= 1.18]
03185>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .030]
03186>       [InterEventTime=  12.00]
03187> R0103:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03188>     ADD HYD               5.0 02:INF-West-A    19.67     .430 2003.0711_17:40  251.88  n/a     .000
03189>                     +     5.0 02:INF-West-B    14.48     .337 2003.0711_17:35  251.88  n/a     .000
03190>                   SUM=    5.0 01:INF-West-T    34.15     .766 2003.0711_17:40  251.88  n/a     .000
03191> ##########################################################################
03192> # CONTINUOUS RAINFALL DATA
03193> ##########################################################################
03194> R0103:C00002-------------------------------------------------------------------------------------------
03195>     FINISH
03196> -------------------------------------------------------------------------------------------------------
03197> *******************************************************************************************
03198>      WARNINGS / ERRORS / NOTES
03199>      -------------------------
03200> R0067:C00002  READ AES DATA
03201> *** WARNING: Requested start date is less than start date in file.
03202> *** WARNING: Missing rainfall increments were set to 0.
03203> *** WARNING: Missing rainfall increments were set to 0.
03204> *** WARNING: Missing rainfall increments were set to 0.
```

```
03205> *** WARNING: Missing rainfall increments were set to 0.
03206> *** WARNING: Missing rainfall increments were set to 0.
03207> *** WARNING: Missing rainfall increments were set to 0.
03208> *** WARNING: Missing rainfall increments were set to 0.
03209> *** WARNING: Missing rainfall increments were set to 0.
03210> *** WARNING: Missing rainfall increments were set to 0.
03211> *** WARNING: Missing rainfall increments were set to 0.
03212> *** WARNING: Requested start date is less than start date in file.
03213> *** WARNING: Missing rainfall increments were set to 0.
03214> *** WARNING: Missing rainfall increments were set to 0.
03215> *** WARNING: Missing rainfall increments were set to 0.
03216> *** WARNING: Missing rainfall increments were set to 0.
03217> *** WARNING: Missing rainfall increments were set to 0.
03218> *** WARNING: Missing rainfall increments were set to 0.
03219> *** WARNING: Missing rainfall increments were set to 0.
03220> *** WARNING: Missing rainfall increments were set to 0.
03221> *** WARNING: Missing rainfall increments were set to 0.
03222> *** WARNING: Missing rainfall increments were set to 0.
03223> *** WARNING: Requested start date is less than start date in file.
03224> *** WARNING: Missing rainfall increments were set to 0.
03225> *** WARNING: Missing rainfall increments were set to 0.
03226> *** WARNING: Missing rainfall increments were set to 0.
03227> *** WARNING: Requested start date is less than start date in file.
03228> *** WARNING: Missing rainfall increments were set to 0.
03229> *** WARNING: Missing rainfall increments were set to 0.
03230> *** WARNING: Missing rainfall increments were set to 0.
03231> *** WARNING: Missing rainfall increments were set to 0.
03232> *** WARNING: Missing rainfall increments were set to 0.
03233> *** WARNING: Missing rainfall increments were set to 0.
03234> *** WARNING: Requested start date is less than start date in file.
03235> *** WARNING: Missing rainfall increments were set to 0.
03236> *** WARNING: Missing rainfall increments were set to 0.
03237> *** WARNING: Requested start date is less than start date in file.
03238> *** WARNING: Missing rainfall increments were set to 0.
03239> *** WARNING: Requested start date is less than start date in file.
03240> *** WARNING: Missing rainfall increments were set to 0.
03241> *** WARNING: Requested start date is less than start date in file.
03242> *** WARNING: Missing rainfall increments were set to 0.
03243> *** WARNING: Requested start date is less than start date in file.
03244> *** WARNING: Missing rainfall increments were set to 0.
03245> *** WARNING: Requested start date is less than start date in file.
03246> *** WARNING: Missing rainfall increments were set to 0.
03247>    Simulation ended on 2022-12-13     at 12:43:47
03248> ================================================================================================
03249>
03250>
```

```
00001> 20     Metric units / ID Numbers OFF
00002> *#############################################################################################################
00003> *#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00004> *#############################################################################################################
00005> *#  Project Name: Barrhaven Conservancy Development
00006> *#  Project Number: 1474
00007> *#  Date        : 2021/Oct/18
00008> *#  Modeller    : J.Burnett, P.Eng.
00009> *#  Updated     : 2022/Dec/13 [LP]
00010> *#  Company     : J.F. Sabourin and Associates
00011> *#  License #   : 2582634
00012> *#############################################################################################################
00013> START               TZERO=[1967.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[67]
00014> *%                   [""] <--storm filename, one per line for NSTORM time
00015> *%------------------|-----------------------------------------------------------------------------------------
00016> *# Ottawa International Airport (1967 - 2003)
00017> READ AES DATA       AES_FILENAME=["YOW_1967_2007.123"],
00018>                     IELEM=[123], START_DATE=[0], END_DATE=[-364]
00019> *%------------------|-----------------------------------------------------------------------------------------
00020> COMPUTE API         APII=[50], APIK=[0.90]/day
00021> *%------------------|-----------------------------------------------------------------------------------------
00022> *#############################################################################################################
00023> *#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIO
00024> *#############################################################################################################
00025> *%------------------|-----------------------------------------------------------------------------------------
00026> CONTINUOUS STANDHYD NHYD=["W1"], DT=[5](min), AREA=[8.92](ha)
00027>                     XIMP=[0.66], TIMP=[0.71], DWF=[0](cms),
00028>                     LOSS=[2]: SCS curve number CN=[71],
00029>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00030>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[244](m), MNI=[0.013], SCI=[0](min)
00031>                     Continuous simulation parameters:
00032>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00033>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00034> *%------------------|-----------------------------------------------------------------------------------------
00035> *# LID for Outlet W1 (26 catchbasins, 30 m long trench each)
00036> *# Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00037> *# Total Volume provided by LID  - 179 m³
00038> *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00039> ROUTE RESERVOIR      NHYDout=["W1-LID"], NHYDin=["W1"], RDT=[5](min),
00040>                           TABLE of ( OUTFLOW-STORAGE ) values
00041>                                    (cms) - (ha-m)
00042>                                  [   0.0000 ,  0.0000  ]
00043>                                  [   0.0009 ,  0.0001  ]
00044>                                  [   0.0010 ,  0.0179  ]
00045>                                  [     -1   ,  -1      ]
00046>                     NHYDovf=["W1-LID-Out"],
00047> *%------------------|-----------------------------------------------------------------------------------------
00048> CONTINUOUS STANDHYD NHYD=["W2"], DT=[5](min), AREA=[10.75](ha)
00049>                     XIMP=[0.65], TIMP=[0.70], DWF=[0](cms),
00050>                     LOSS=[2]: SCS curve number CN=[71],
00051>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00052>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[268](m), MNI=[0.013], SCI=[0](min)
00053>                     Continuous simulation parameters:
00054>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00055>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00056> *%------------------|-----------------------------------------------------------------------------------------
00057> *# LID for Outlet W2 (29 catchbasins, 30 m long trench each)
00058> *# Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pip
00059> *# Total Volume provided by LID  - 200 m³
00060> *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00061> ROUTE RESERVOIR      NHYDout=["W2-LID"], NHYDin=["W2"], RDT=[5](min),
00062>                           TABLE of ( OUTFLOW-STORAGE ) values
00063>                                    (cms) - (ha-m)
00064>                                  [   0.0000 ,  0.0000  ]
00065>                                  [   0.0010 ,  0.0001  ]
00066>                                  [   0.0011 ,  0.0200  ]
00067>                                  [     -1   ,  -1      ]
00068>                     NHYDovf=["W2-LID-Out"],
00069> *%------------------|-----------------------------------------------------------------------------------------
00070> CONTINUOUS STANDHYD NHYD=["W3"], DT=[5](min), AREA=[6.30](ha)
00071>                     XIMP=[0.53], TIMP=[0.63], DWF=[0](cms),
00072>                     LOSS=[2]: SCS curve number CN=[71],
00073>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00074>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[205](m), MNI=[0.013], SCI=[0](min)
00075>                     Continuous simulation parameters:
00076>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00077>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00078> *%------------------|-----------------------------------------------------------------------------------------
00079> *# LID for Outlet W3 (14 catchbasins, 30 m long trench each)
00080> *# Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pip
00081> *# Total Volume provided by LID  - 96 m³
00082> *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00083> ROUTE RESERVOIR      NHYDout=["W3-LID"], NHYDin=["W3"], RDT=[5](min),
00084>                           TABLE of ( OUTFLOW-STORAGE ) values
00085>                                    (cms) - (ha-m)
00086>                                  [   0.0000 ,  0.0000  ]
00087>                                  [   0.0004 ,  0.0001  ]
00088>                                  [   0.0005 ,  0.0096  ]
00089>                                  [     -1   ,  -1      ]
```

```
00090>                     NHYDovf=["W3-LID-Out"],
00091> *%------------------|-------------------------------------------------------------------------------------------
00092> CONTINUOUS STANDHYD NHYD=["W4"], DT=[5](min), AREA=[8.18](ha)
00093>                     XIMP=[0.57], TIMP=[0.67], DWF=[0](cms),
00094>                     LOSS=[2]: SCS curve number CN=[71],
00095>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00096>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[234](m), MNI=[0.013], SCI=[0](min)
00097>                     Continuous simulation parameters:
00098>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00099>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00100> *%------------------|-------------------------------------------------------------------------------------------
00101> *# LID for Outlet W4 (26 catchbasins, 30 m long trench each)
00102> *# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pip
00103> *# Total Volume provided by LID  - 131 m³
00104> *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00105> ROUTE RESERVOIR      NHYDout=["W4-LID"], NHYDin=["W4"], RDT=[5](min),
00106>                           TABLE of ( OUTFLOW-STORAGE ) values
00107>                                    (cms) - (ha-m)
00108>                                  [   0.0000 ,  0.0000  ]
00109>                                  [   0.0006 ,  0.0001  ]
00110>                                  [   0.0007 ,  0.0131  ]
00111>                                  [     -1   ,  -1      ]
00112>                     NHYDovf=["W4-LID-Out"],
00113> *%------------------|-------------------------------------------------------------------------------------------
00114> *Development Without LIDs
00115> ADD HYD             NHYDsum=["BCD-PH3"], NHYDs to add=["W1", "W2", "W3", "W4"]
00116> *%------------------|-------------------------------------------------------------------------------------------
00117> *Development With LIDs
00118> ADD HYD             NHYDsum=["BCD-PH3-LID"], NHYDs to add=["W1-LID-Out","W2-LID-Out","W3-LID-Out","W4-LID-Out"
00119> *%------------------|-------------------------------------------------------------------------------------------
00120> *#*****************************************************************************************************
00121> *#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDI
00122> *#*****************************************************************************************************
00123> *#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00124> *#*****************************************************************************************************
00125> CONTINUOUS STANDHYD NHYD=["INF-W1"], DT=[5](min), AREA=[8.92](ha)
00126>                     XIMP=[0.66], TIMP=[0.71], DWF=[0](cms),
00127>                     LOSS=[2]: SCS curve number CN=[99.99],
00128>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00129>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[244](m), MNI=[0.013], SCI=[0](min)
00130>                     Continuous simulation parameters:
00131>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00132>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00133> *%------------------|-------------------------------------------------------------------------------------------
00134> CONTINUOUS STANDHYD NHYD=["INF-W2"], DT=[5](min), AREA=[10.75](ha)
00135>                     XIMP=[0.65], TIMP=[0.70], DWF=[0](cms),
00136>                     LOSS=[2]: SCS curve number CN=[99.99],
00137>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00138>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[268](m), MNI=[0.013], SCI=[0](min)
00139>                     Continuous simulation parameters:
00140>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00141>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00142> *%------------------|-------------------------------------------------------------------------------------------
00143> CONTINUOUS STANDHYD NHYD=["INF-W3"], DT=[5](min), AREA=[6.30](ha)
00144>                     XIMP=[0.53], TIMP=[0.63], DWF=[0](cms),
00145>                     LOSS=[2]: SCS curve number CN=[99.99],
00146>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00147>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[205](m), MNI=[0.013], SCI=[0](min)
00148>                     Continuous simulation parameters:
00149>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00150>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00151> *%------------------|-------------------------------------------------------------------------------------------
00152> CONTINUOUS STANDHYD NHYD=["INF-W4"], DT=[5](min), AREA=[8.18](ha)
00153>                     XIMP=[0.57], TIMP=[0.67], DWF=[0](cms),
00154>                     LOSS=[2]: SCS curve number CN=[99.99],
00155>                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
00156>                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[234](m), MNI=[0.013], SCI=[0](min)
00157>                     Continuous simulation parameters:
00158>                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
00159>                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm), InterEventTime=[12](hrs), END=-1
00160> *%------------------|-------------------------------------------------------------------------------------------
00161> *Development Without Infiltration for water budget
00162> ADD HYD             NHYDsum=["INF-BCD-PH3"], NHYDs to add=["INF-W1", "INF-W2", "INF-W3", "INF-W4"]
00163> *%------------------|-------------------------------------------------------------------------------------------
00164> *#########################################################################
00165> *# CONTINUOUS RAINFALL DATA
00166> *#########################################################################
00167> *%------------------|-------------------------------------------------------------------------------------------
00168> *%------------------|-------------------------------------------------------------------------------------------
00169> START               TZERO=[1968.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[68]
00170> *%------------------|-------------------------------------------------------------------------------------------
00171> START               TZERO=[1969.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[69]
00172> *%------------------|-------------------------------------------------------------------------------------------
00173> START               TZERO=[1970.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[70]
00174> *%------------------|-------------------------------------------------------------------------------------------
00175> START               TZERO=[1971.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[71]
00176> *%------------------|-------------------------------------------------------------------------------------------
00177> START               TZERO=[1972.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[72]
00178> *%------------------|-------------------------------------------------------------------------------------------
```

```
00179> START               TZERO=[1973.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[73]
00180> *%------------------|-----------------------------------------------------------------------------------------
00181> START               TZERO=[1974.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[74]
00182> *%------------------|-----------------------------------------------------------------------------------------
00183> START               TZERO=[1975.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[75]
00184> *%------------------|-----------------------------------------------------------------------------------------
00185> START               TZERO=[1976.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[76]
00186> *%------------------|-----------------------------------------------------------------------------------------
00187> START               TZERO=[1977.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[77]
00188> *%------------------|-----------------------------------------------------------------------------------------
00189> START               TZERO=[1978.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[78]
00190> *%------------------|-----------------------------------------------------------------------------------------
00191> START               TZERO=[1979.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[79]
00192> *%------------------|-----------------------------------------------------------------------------------------
00193> START               TZERO=[1980.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[80]
00194> *%------------------|-----------------------------------------------------------------------------------------
00195> START               TZERO=[1981.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[81]
00196> *%------------------|-----------------------------------------------------------------------------------------
00197> START               TZERO=[1982.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[82]
00198> *%------------------|-----------------------------------------------------------------------------------------
00199> START               TZERO=[1983.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[83]
00200> *%------------------|-----------------------------------------------------------------------------------------
00201> START               TZERO=[1984.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[84]
00202> *%------------------|-----------------------------------------------------------------------------------------
00203> START               TZERO=[1985.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[85]
00204> *%------------------|-----------------------------------------------------------------------------------------
00205> START               TZERO=[1986.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[86]
00206> *%------------------|-----------------------------------------------------------------------------------------
00207> START               TZERO=[1987.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[87]
00208> *%------------------|-----------------------------------------------------------------------------------------
00209> START               TZERO=[1988.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[88]
00210> *%------------------|-----------------------------------------------------------------------------------------
00211> START               TZERO=[1989.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[89]
00212> *%------------------|-----------------------------------------------------------------------------------------
00213> START               TZERO=[1990.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[90]
00214> *%------------------|-----------------------------------------------------------------------------------------
00215> START               TZERO=[1991.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[91]
00216> *%------------------|-----------------------------------------------------------------------------------------
00217> START               TZERO=[1992.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[92]
00218> *%------------------|-----------------------------------------------------------------------------------------
00219> START               TZERO=[1993.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[93]
00220> *%------------------|-----------------------------------------------------------------------------------------
00221> START               TZERO=[1994.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[94]
00222> *%------------------|-----------------------------------------------------------------------------------------
00223> START               TZERO=[1995.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[95]
00224> *%------------------|-----------------------------------------------------------------------------------------
00225> START               TZERO=[1996.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[96]
00226> *%------------------|-----------------------------------------------------------------------------------------
00227> START               TZERO=[1997.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[97]
00228> *%------------------|-----------------------------------------------------------------------------------------
00229> START               TZERO=[1998.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[98]
00230> *%------------------|-----------------------------------------------------------------------------------------
00231> START               TZERO=[1999.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[99]
00232> *%------------------|-----------------------------------------------------------------------------------------
00233> START               TZERO=[2000.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[100]
00234> *%------------------|-----------------------------------------------------------------------------------------
00235> *% MISSING FROM AES RAINFALL DATA
00236> *%START               TZERO=[2001.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[101]
00237> *%------------------|-----------------------------------------------------------------------------------------
00238> START               TZERO=[2002.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[102]
00239> *%------------------|-----------------------------------------------------------------------------------------
00240> START               TZERO=[2003.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[103]
00241> *%------------------|-----------------------------------------------------------------------------------------
00242> FINISH
```

```
00001>  ================================================================================================
00002>
00003>  SSSSS   W   W   M   M   H   H   Y   Y   M   M    OOO          222     000    11   5555   =========
00004>  S       W W W   MM MM   H   H    Y Y    MM MM   O   O          2     0   0   11   5
00005>  SSSSS   W W W   M M M   HHHHH     Y     M M M   O   O          2     0   0   11   5      Ver 5.500
00006>      S    W W    M   M   H   H     Y     M   M   O   O        222     0   0   11   555    FEB  2015
00007>  SSSSS    W W    M   M   H   H     Y     M   M    OOO         2       0   0   11      5   =========
00008>                                                               2       0   0   11      5   # 2549237
00009>        StormWater Management HYdrologic Model                  222     000    11   555    =========
00010>
00011>  ************************************************************************************************
00012>  ************************************  SWMHYMO Ver 5.500  *************************************
00013>  ******************  A single event and continuous hydrologic simulation model  ******************
00014>  ******************     based on the principles of HYMO and its successors      ******************
00015>  ******************                OTTHYMO-83 and OTTHYMO-89.                  ******************
00016>  ************************************************************************************************
00017>  ****************** Distributed by:  J.F. Sabourin and Associates Inc.          ******************
00018>  ******************                  Ottawa,  Ontario: (613) 836-3884          ******************
00019>  ******************                  Gatineau, Quebec: (819) 243-6858          ******************
00020>  ******************                  E-Mail: swmhymo@jfsa.Com                  ******************
00021>  ************************************************************************************************
00022>
00023>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024>  ++++++++++++++++++ Licensed user: JFSAinc.                                  ++++++++++++++++++++
00025>  ++++++++++++++++++                Ottawa               SERIAL#:2549237       ++++++++++++++++++++
00026>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028>  ************************************************************************************************
00029>  ******************           ++++++ PROGRAM ARRAY DIMENSIONS ++++++            ******************
00030>  ******************           Maximum value for ID numbers  :     11            ******************
00031>  ******************           Max. number of rainfall points: 105408            ******************
00032>  ******************           Max. number of flow points    : 105408            ******************
00033>  ************************************************************************************************
00034>
00035>
00036>  *********************************   S U M M A R Y   O U T P U T   *********************************
00037>  ************************************************************************************************
00038>  *                 RUN DATE: 2022-12-13     TIME: 12:43:53     RUN COUNTER: 004325                *
00039>  ************************************************************************************************
00040>  * Input   file: C:\Users\lpipk\Desktop\20221213-Post-Dev\BCD_PH3-POST_v02.dat                    *
00041>  * Output  file: C:\Users\lpipk\Desktop\20221213-Post-Dev\BCD_PH3-POST_v02.out                    *
00042>  * Summary file: C:\Users\lpipk\Desktop\20221213-Post-Dev\BCD_PH3-POST_v02.sum                    *
00043>  * User comments:                                                                                *
00044>  * 1:_____________________________________________________________________________________________*
00045>  * 2:_____________________________________________________________________________________________*
00046>  * 3:_____________________________________________________________________________________________*
00047>  ************************************************************************************************
00048>
00049>
00050> #*************************************************************************************************************
00051> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00052> #*************************************************************************************************************
00053> #  Project Name: Barrhaven Conservancy Development
00054> #  Project Number: 1474
00055> #  Date        : 2021/Oct/18
00056> #  Modeller    : J.Burnett, P.Eng.
00057> #  Updated     : 2022/Dec/13 [LP]
00058> #  Company     : J.F. Sabourin and Associates
00059> #  License #   : 2582634
00060> #*************************************************************************************************************
00061>   ** END OF RUN :   66
00062>
00063> ************************************************************************************************
00064>
00065>
00066>
00067>
00068>
00069>  RUN#:COMMAND#
00070> R0067:C00001-----------------------------------------------------------------------------------
00071>      START
00072>       [TZERO =    .00 hrs on 19670101]
00073>       [METOUT=   2    (1=imperial, 2=metric output)]
00074>       [NSTORM=   0 ]
00075>       [NRUN  = 0067 ]
00076> #*************************************************************************************************************
00077> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00078> #*************************************************************************************************************
00079> #  Project Name: Barrhaven Conservancy Development
00080> #  Project Number: 1474
00081> #  Date        : 2021/Oct/18
00082> #  Modeller    : J.Burnett, P.Eng.
00083> #  Updated     : 2022/Dec/13 [LP]
00084> #  Company     : J.F. Sabourin and Associates
00085> #  License #   : 2582634
00086> #*************************************************************************************************************
00087> # Ottawa International Airport (1967 - 2003)
00088> R0067:C00002-----------------------------------------------------------------------------------
00089>   *  READ AES DATA
```

```
00090>       [Filename  = YOW_1967_2007.123                                          ]
00091>       [Start_date= 1967.0101: End_date= 1967.1231]
00092>       {DT= 60.min: Length= 3984.hrs: WetHrs=  257: DryHrs= 3727: PTOT= 386.90}
00093>       Maximum average rainfall intensities over
00094>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00095>        24.60    17.65    13.20     7.25     3.83     2.36     1.73     1.32      .90    mm/hr
00096>        24.60    35.30    39.60    43.50    46.00    56.60    62.30    63.20    64.90    mm
00097>       19670921 19670921 19670921 19670921 19670921 19670922 19670922 19670923 19670924  date
00098>       Number of rainfall events per following interevent time
00099>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00100>           80       65       56       40       32       29       24       20       18
00101>       Number of events with at least the following durations
00102>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00103>           79       42       29       14        3        0        0        0        0
00104> R0067:C00003-------------------------------------------------------------------------------------------
00105>      COMPUTE API
00106>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00107>       {APImax= 76.77: APIavg= 24.81: APImin=  3.06}
00108> #*************************************************************************************************************
00109> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
00110> #*************************************************************************************************************
00111> R0067:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00112>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .420 1967.0921_17:00  224.61 .581     .000
00113>       [XIMP=.66:TIMP=.71]
00114>       [LOSS= 2 :CN= 71.0]
00115>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00116>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00117>       [IaRECimp=   1.50: IaRECper=   6.00]
00118>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00119> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
00120> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00121> # Total Volume provided by LID  - 179 m³
00122> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00123> R0067:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00124>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .420 1967.0921_17:00  224.61  n/a     .000
00125>                   out <=    5.0 01:W1-LID         1.87     .001 1967.0725_ 0:30  224.61  n/a     .000
00126>              overflow <=    5.0 03:W1-LID-Out     7.05     .416 1967.0921_17:00  224.61  n/a     .000
00127>       {MxStoUsed=.1789E-01  m3, TotOvfVol=.1585E+01  m3, N-Ovf=   66, TotDurOvf=  121.hrs}
00128> R0067:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00129>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .499 1967.0921_17:00  222.14 .574     .000
00130>       [XIMP=.65:TIMP=.70]
00131>       [LOSS= 2 :CN= 71.0]
00132>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00133>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00134>       [IaRECimp=   1.50: IaRECper=   6.00]
00135>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00136> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
00137> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00138> # Total Volume provided by LID  - 200 m³
00139> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00140> R0067:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00141>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .499 1967.0921_17:00  222.14  n/a     .000
00142>                   out <=    5.0 01:W2-LID         2.12     .001 1967.0725_ 0:30  222.14  n/a     .000
00143>              overflow <=    5.0 03:W2-LID-Out     8.63     .493 1967.0921_17:00  222.14  n/a     .000
00144>       {MxStoUsed=.1999E-01  m3, TotOvfVol=.1918E+01  m3, N-Ovf=   72, TotDurOvf=  123.hrs}
00145> R0067:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00146>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .253 1967.0921_17:00  197.15 .510     .000
00147>       [XIMP=.53:TIMP=.63]
00148>       [LOSS= 2 :CN= 71.0]
00149>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00150>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00151>       [IaRECimp=   1.50: IaRECper=   6.00]
00152>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00153> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
00154> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00155> # Total Volume provided by LID  - 96 m³
00156> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00157> R0067:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00158>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .253 1967.0921_17:00  197.15  n/a     .000
00159>                   out <=    5.0 01:W3-LID         1.12     .001 1967.0725_ 0:30  197.15  n/a     .000
00160>              overflow <=    5.0 03:W3-LID-Out     5.18     .248 1967.0921_17:00  197.15  n/a     .000
00161>       {MxStoUsed=.9598E-02  m3, TotOvfVol=.1022E+01  m3, N-Ovf=   77, TotDurOvf=  127.hrs}
00162> R0067:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00163>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .348 1967.0921_17:00  207.14 .535     .000
00164>       [XIMP=.57:TIMP=.67]
00165>       [LOSS= 2 :CN= 71.0]
00166>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00167>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00168>       [IaRECimp=   1.50: IaRECper=   6.00]
00169>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00170> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
00171> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00172> # Total Volume provided by LID  - 131 m³
00173> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00174> R0067:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00175>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .348 1967.0921_17:00  207.14  n/a     .000
00176>                   out <=    5.0 01:W4-LID         1.47     .001 1967.0725_ 0:30  207.14  n/a     .000
00177>              overflow <=    5.0 03:W4-LID-Out     6.71     .343 1967.0921_17:00  207.14  n/a     .000
00178>       {MxStoUsed=.1309E-01  m3, TotOvfVol=.1390E+01  m3, N-Ovf=   66, TotDurOvf=  126.hrs}
```

```
00179> R0067:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00180>     ADD HYD               5.0 02:W1            8.92     .420 1967.0921_17:00  224.61  n/a     .000
00181>                     +     5.0 02:W2           10.75     .499 1967.0921_17:00  222.14  n/a     .000
00182>                     +     5.0 02:W3            6.30     .253 1967.0921_17:00  197.15  n/a     .000
00183>                     +     5.0 02:W4            8.18     .348 1967.0921_17:00  207.14  n/a     .000
00184>                   SUM=    5.0 01:BCD-PH3      34.15    1.519 1967.0921_17:00  214.58  n/a     .000
00185> R0067:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00186>     ADD HYD               5.0 02:W1-LID-Out    7.05     .416 1967.0921_17:00  224.61  n/a     .000
00187>                     +     5.0 02:W2-LID-Out    8.63     .493 1967.0921_17:00  222.14  n/a     .000
00188>                     +     5.0 02:W3-LID-Out    5.18     .248 1967.0921_17:00  197.15  n/a     .000
00189>                     +     5.0 02:W4-LID-Out    6.71     .343 1967.0921_17:00  207.14  n/a     .000
00190>                   SUM=    5.0 01:BCD-PH3-LI   27.58    1.500 1967.0921_17:00  214.43  n/a     .000
00191> #*************************************************************************************************************
00192> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
00193> #*************************************************************************************************************
00194> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00195> #*************************************************************************************************************
00196> R0067:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00197>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .564 1967.0921_17:00  271.41 .702     .000
00198>       [XIMP=.66:TIMP=.71]
00199>       [LOSS= 2 :CN=100.0]
00200>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00201>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00202>       [IaRECimp=   1.50: IaRECper=   6.00]
00203>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00204> R0067:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00205>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .676 1967.0921_17:00  270.26 .699     .000
00206>       [XIMP=.65:TIMP=.70]
00207>       [LOSS= 2 :CN=100.0]
00208>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00209>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00210>       [IaRECimp=   1.50: IaRECper=   6.00]
00211>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00212> R0067:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00213>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .394 1967.0921_17:00  262.85 .679     .000
00214>       [XIMP=.53:TIMP=.63]
00215>       [LOSS= 2 :CN=100.0]
00216>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00217>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00218>       [IaRECimp=   1.50: IaRECper=   6.00]
00219>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00220> R0067:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00221>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .515 1967.0921_17:00  267.51 .691     .000
00222>       [XIMP=.57:TIMP=.67]
00223>       [LOSS= 2 :CN=100.0]
00224>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00225>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00226>       [IaRECimp=   1.50: IaRECper=   6.00]
00227>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00228> R0067:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00229>     ADD HYD               5.0 02:INF-W1         8.92     .564 1967.0921_17:00  271.41  n/a     .000
00230>                     +     5.0 02:INF-W2        10.75     .676 1967.0921_17:00  270.26  n/a     .000
00231>                     +     5.0 02:INF-W3         6.30     .394 1967.0921_17:00  262.85  n/a     .000
00232>                     +     5.0 02:INF-W4         8.18     .515 1967.0921_17:00  267.51  n/a     .000
00233>                   SUM=    5.0 01:INF-BCD-PH    34.15    2.149 1967.0921_17:00  268.53  n/a     .000
00234> ##########################################################################
00235> # CONTINUOUS RAINFALL DATA
00236> ##########################################################################
00237>   ** END OF RUN :   67
00238>
00239> *************************************************************************************************************
00240>
00241>
00242>
00243>
00244>
00245>  RUN#:COMMAND#
00246> R0068:C00001-------------------------------------------------------------------------------------------------
00247>      START
00248>       [TZERO =    .00 hrs on 19680101]
00249>       [METOUT=   2    (1=imperial, 2=metric output)]
00250>       [NSTORM=   0 ]
00251>       [NRUN  = 0068 ]
00252> #*************************************************************************************************************
00253> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00254> #*************************************************************************************************************
00255> #  Project Name: Barrhaven Conservancy Development
00256> #  Project Number: 1474
00257> #  Date         : 2021/Oct/18
00258> #  Modeller     : J.Burnett, P.Eng.
00259> #  Updated      : 2022/Dec/13 [LP]
00260> #  Company      : J.F. Sabourin and Associates
00261> #  License #    : 2582634
00262> #*************************************************************************************************************
00263> # Ottawa International Airport (1967 - 2003)
00264> R0068:C00002-------------------------------------------------------------------------------------------------
00265>   *  READ AES DATA
00266>       [Filename  = YOW_1967_2007.123                                        ]
00267>       [Start_date= 1968.0101: End_date= 1968.1230]
```

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00268>       {DT= 60.min: Length= 8760.hrs: WetHrs=  413: DryHrs= 8347: PTOT= 592.80}
00269>       Maximum average rainfall intensities over
00270>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00271>        33.30    17.05    11.37     6.23     3.74     1.87     1.26      .95      .70    mm/hr
00272>        33.30    34.10    34.10    37.40    44.90    44.90    45.40    45.40    50.20    mm
00273>       19680817 19680817 19680817 19680808 19680817 19680818 19680817 19680808 19680820  date
00274>       Number of rainfall events per following interevent time
00275>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00276>          137      105       93       84       72       63       48       43       36
00277>       Number of events with at least the following durations
00278>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00279>          136       76       49       18        5        0        0        0        0
00280> R0068:C00003------------------------------------------------------------------------------------
00281>      COMPUTE API
00282>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00283>       {APImax= 67.52: APIavg= 16.74: APImin=   .27}
00284> #*****************************************************************************************************
00285> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
00286> #*****************************************************************************************************
00287> R0068:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00288>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .612 1968.0817_ 5:00  321.18 .542     .000
00289>       [XIMP=.66:TIMP=.71]
00290>       [LOSS= 2 :CN= 71.0]
00291>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00292>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00293>       [IaRECimp=   1.50: IaRECper=   6.00]
00294>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00295> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
00296> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00297> # Total Volume provided by LID  - 179 m³
00298> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00299> R0068:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00300>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .612 1968.0817_ 5:00  321.18  n/a     .000
00301>                 out <=    5.0 01:W1-LID         2.47     .001 1968.0130_ 4:25  321.19  n/a     .000
00302>           overflow <=    5.0 03:W1-LID-Out     6.45     .600 1968.0817_ 5:00  321.18  n/a     .000
00303>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2073E+01  m3, N-Ovf=  108, TotDurOvf=  164.hrs}
00304> R0068:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00305>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .728 1968.0817_ 5:00  317.28 .535     .000
00306>       [XIMP=.65:TIMP=.70]
00307>       [LOSS= 2 :CN= 71.0]
00308>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00309>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00310>       [IaRECimp=   1.50: IaRECper=   6.00]
00311>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00312> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
00313> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00314> # Total Volume provided by LID  - 200 m³
00315> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00316> R0068:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00317>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .728 1968.0817_ 5:00  317.28  n/a     .000
00318>                 out <=    5.0 01:W2-LID         2.80     .001 1968.0130_ 3:55  317.27  n/a     .000
00319>           overflow <=    5.0 03:W2-LID-Out     7.95     .713 1968.0817_ 5:00  317.28  n/a     .000
00320>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.2521E+01  m3, N-Ovf=  119, TotDurOvf=  170.hrs}
00321> R0068:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00322>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .382 1968.0817_ 5:00  275.30 .464     .000
00323>       [XIMP=.53:TIMP=.63]
00324>       [LOSS= 2 :CN= 71.0]
00325>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00326>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00327>       [IaRECimp=   1.50: IaRECper=   6.00]
00328>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00329> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
00330> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00331> # Total Volume provided by LID  - 96 m³
00332> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00333> R0068:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00334>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .382 1968.0817_ 5:00  275.30  n/a     .000
00335>                 out <=    5.0 01:W3-LID         1.52     .001 1968.0130_ 3:55  275.31  n/a     .000
00336>           overflow <=    5.0 03:W3-LID-Out     4.78     .370 1968.0817_ 5:00  275.30  n/a     .000
00337>      {MxStoUsed=.9600E-02  m3, TotOvfVol=.1316E+01  m3, N-Ovf=  107, TotDurOvf=  173.hrs}
00338> R0068:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00339>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .520 1968.0817_ 5:00  291.04 .491     .000
00340>       [XIMP=.57:TIMP=.67]
00341>       [LOSS= 2 :CN= 71.0]
00342>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00343>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00344>       [IaRECimp=   1.50: IaRECper=   6.00]
00345>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00346> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
00347> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00348> # Total Volume provided by LID  - 131 m³
00349> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00350> R0068:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00351>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .520 1968.0817_ 5:00  291.04  n/a     .000
00352>                 out <=    5.0 01:W4-LID         1.99     .001 1968.0130_ 3:50  291.04  n/a     .000
00353>           overflow <=    5.0 03:W4-LID-Out     6.19     .505 1968.0817_ 5:00  291.04  n/a     .000
00354>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1803E+01  m3, N-Ovf=  115, TotDurOvf=  174.hrs}
00355> R0068:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00356>     ADD HYD               5.0 02:W1             8.92     .612 1968.0817_ 5:00  321.18  n/a     .000
```

```
00357>                     +     5.0 02:W2           10.75     .728 1968.0817_ 5:00  317.28  n/a     .000
00358>                     +     5.0 02:W3            6.30     .382 1968.0817_ 5:00  275.30  n/a     .000
00359>                     +     5.0 02:W4            8.18     .520 1968.0817_ 5:00  291.04  n/a     .000
00360>                   SUM=    5.0 01:BCD-PH3      34.15    2.241 1968.0817_ 5:00  304.27  n/a     .000
00361> R0068:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00362>     ADD HYD              5.0 02:W1-LID-Out     6.45     .600 1968.0817_ 5:00  321.18  n/a     .000
00363>                     +     5.0 02:W2-LID-Out     7.95     .713 1968.0817_ 5:00  317.28  n/a     .000
00364>                     +     5.0 02:W3-LID-Out     4.78     .370 1968.0817_ 5:00  275.30  n/a     .000
00365>                     +     5.0 02:W4-LID-Out     6.19     .505 1968.0817_ 5:00  291.04  n/a     .000
00366>                   SUM=    5.0 01:BCD-PH3-LI    25.37    2.188 1968.0817_ 5:00  303.96  n/a     .000
00367> #*************************************************************************************************************
00368> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
00369> #*************************************************************************************************************
00370> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00371> #*************************************************************************************************************
00372> R0068:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00373>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .790 1968.0817_ 5:00  392.41 .662     .000
00374>       [XIMP=.66:TIMP=.71]
00375>       [LOSS= 2 :CN=100.0]
00376>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00377>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00378>       [IaRECimp=   1.50: IaRECper=   6.00]
00379>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00380> R0068:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00381>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .948 1968.0817_ 5:00  390.46 .659     .000
00382>       [XIMP=.65:TIMP=.70]
00383>       [LOSS= 2 :CN=100.0]
00384>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00385>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00386>       [IaRECimp=   1.50: IaRECper=   6.00]
00387>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00388> R0068:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00389>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .564 1968.0817_ 5:00  376.68 .635     .000
00390>       [XIMP=.53:TIMP=.63]
00391>       [LOSS= 2 :CN=100.0]
00392>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00393>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00394>       [IaRECimp=   1.50: IaRECper=   6.00]
00395>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00396> R0068:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00397>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .722 1968.0817_ 5:00  384.61 .649     .000
00398>       [XIMP=.57:TIMP=.67]
00399>       [LOSS= 2 :CN=100.0]
00400>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00401>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00402>       [IaRECimp=   1.50: IaRECper=   6.00]
00403>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00404> R0068:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00405>     ADD HYD              5.0 02:INF-W1         8.92     .790 1968.0817_ 5:00  392.41  n/a     .000
00406>                     +     5.0 02:INF-W2        10.75     .948 1968.0817_ 5:00  390.46  n/a     .000
00407>                     +     5.0 02:INF-W3         6.30     .564 1968.0817_ 5:00  376.68  n/a     .000
00408>                     +     5.0 02:INF-W4         8.18     .722 1968.0817_ 5:00  384.61  n/a     .000
00409>                   SUM=    5.0 01:INF-BCD-PH    34.15    3.023 1968.0817_ 5:00  387.03  n/a     .000
00410> ###############################################################################
00411> # CONTINUOUS RAINFALL DATA
00412> ###############################################################################
00413>   ** END OF RUN :   68
00414>
00415> *********************************************************************************************
00416>
00417>
00418>
00419>
00420>
00421>  RUN#:COMMAND#
00422> R0069:C00001-----------------------------------------------------------------------------------------
00423>      START
00424>       [TZERO =    .00 hrs on 19690101]
00425>       [METOUT=   2    (1=imperial, 2=metric output)]
00426>       [NSTORM=   0 ]
00427>       [NRUN  = 0069 ]
00428> #*************************************************************************************************************
00429> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00430> #*************************************************************************************************************
00431> #  Project Name: Barrhaven Conservancy Development
00432> #  Project Number: 1474
00433> #  Date         : 2021/Oct/18
00434> #  Modeller     : J.Burnett, P.Eng.
00435> #  Updated      : 2022/Dec/13 [LP]
00436> #  Company      : J.F. Sabourin and Associates
00437> #  License #    : 2582634
00438> #*************************************************************************************************************
00439> # Ottawa International Airport (1967 - 2003)
00440> R0069:C00002-----------------------------------------------------------------------------------------
00441>   *  READ AES DATA
00442>       [Filename  = YOW_1967_2007.123                                          ]
00443>       [Start_date= 1969.0101: End_date= 1969.1231]
00444>       {DT= 60.min: Length= 8760.hrs: WetHrs=  470: DryHrs= 8290: PTOT= 570.30}
00445>       Maximum average rainfall intensities over
```

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00446>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00447>        21.10    16.25    10.83     7.78     3.93     2.10     1.40     1.09      .75    mm/hr
00448>        21.10    32.50    32.50    46.70    47.20    50.30    50.30    52.10    54.00    mm
00449>       19690818 19690818 19690818 19690819 19690819 19690819 19690819 19690819 19690819  date
00450>       Number of rainfall events per following interevent time
00451>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00452>          157      119      107       92       72       58       49       43       32
00453>       Number of events with at least the following durations
00454>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00455>          156       84       58       21        5        0        0        0        0
00456> R0069:C00003-------------------------------------------------------------------------------------------
00457>      COMPUTE API
00458>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00459>       {APImax= 56.77: APIavg= 16.06: APImin=   .06}
00460> #*************************************************************************************************************
00461> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
00462> #*************************************************************************************************************
00463> R0069:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00464>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .384 1969.0818_22:00  294.38 .516     .000
00465>       [XIMP=.66:TIMP=.71]
00466>       [LOSS= 2 :CN= 71.0]
00467>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00468>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00469>       [IaRECimp=   1.50: IaRECper=   6.00]
00470>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00471> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
00472> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00473> # Total Volume provided by LID  - 179 m³
00474> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00475> R0069:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00476>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .384 1969.0818_22:00  294.38  n/a     .000
00477>                   out <=    5.0 01:W1-LID         2.45     .001 1969.0124_11:10  294.39  n/a     .000
00478>              overflow <=    5.0 03:W1-LID-Out     6.47     .379 1969.0818_22:00  294.38  n/a     .000
00479>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.1904E+01  m3, N-Ovf=   90, TotDurOvf=  174.hrs}
00480> R0069:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00481>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .457 1969.0818_22:00  290.70 .510     .000
00482>       [XIMP=.65:TIMP=.70]
00483>       [LOSS= 2 :CN= 71.0]
00484>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00485>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00486>       [IaRECimp=   1.50: IaRECper=   6.00]
00487>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00488> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
00489> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00490> # Total Volume provided by LID  - 200 m³
00491> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00492> R0069:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00493>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .457 1969.0818_22:00  290.70  n/a     .000
00494>                   out <=    5.0 01:W2-LID         2.81     .001 1969.0124_11:05  290.70  n/a     .000
00495>              overflow <=    5.0 03:W2-LID-Out     7.94     .450 1969.0818_22:00  290.70  n/a     .000
00496>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2308E+01  m3, N-Ovf=   96, TotDurOvf=  180.hrs}
00497> R0069:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00498>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .238 1969.0818_22:00  251.22 .441     .000
00499>       [XIMP=.53:TIMP=.63]
00500>       [LOSS= 2 :CN= 71.0]
00501>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00502>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00503>       [IaRECimp=   1.50: IaRECper=   6.00]
00504>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00505> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
00506> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00507> # Total Volume provided by LID  - 96 m³
00508> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00509> R0069:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00510>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .238 1969.0818_22:00  251.22  n/a     .000
00511>                   out <=    5.0 01:W3-LID         1.54     .001 1969.0124_11:05  251.23  n/a     .000
00512>              overflow <=    5.0 03:W3-LID-Out     4.76     .233 1969.0818_22:00  251.22  n/a     .000
00513>      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1197E+01  m3, N-Ovf=   94, TotDurOvf=  183.hrs}
00514> R0069:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00515>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .325 1969.0818_22:00  266.02 .466     .000
00516>       [XIMP=.57:TIMP=.67]
00517>       [LOSS= 2 :CN= 71.0]
00518>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00519>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00520>       [IaRECimp=   1.50: IaRECper=   6.00]
00521>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00522> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
00523> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00524> # Total Volume provided by LID  - 131 m³
00525> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00526> R0069:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00527>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .325 1969.0818_22:00  266.02  n/a     .000
00528>                   out <=    5.0 01:W4-LID         2.01     .001 1969.0124_11:00  266.02  n/a     .000
00529>              overflow <=    5.0 03:W4-LID-Out     6.17     .318 1969.0818_22:00  266.02  n/a     .000
00530>      {MxStoUsed=.1309E-01  m3, TotOvfVol=.1642E+01  m3, N-Ovf=   90, TotDurOvf=  184.hrs}
00531> R0069:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00532>     ADD HYD               5.0 02:W1             8.92     .384 1969.0818_22:00  294.38  n/a     .000
00533>                       +     5.0 02:W2            10.75     .457 1969.0818_22:00  290.70  n/a     .000
00534>                       +     5.0 02:W3             6.30     .238 1969.0818_22:00  251.22  n/a     .000
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00535>                     +     5.0 02:W4             8.18     .325 1969.0818_22:00  266.02  n/a     .000
00536>                   SUM=    5.0 01:BCD-PH3       34.15    1.404 1969.0818_22:00  278.47  n/a     .000
00537> R0069:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00538>     ADD HYD               5.0 02:W1-LID-Out     6.47     .379 1969.0818_22:00  294.38  n/a     .000
00539>                     +     5.0 02:W2-LID-Out     7.94     .450 1969.0818_22:00  290.70  n/a     .000
00540>                     +     5.0 02:W3-LID-Out     4.76     .233 1969.0818_22:00  251.22  n/a     .000
00541>                     +     5.0 02:W4-LID-Out     6.17     .318 1969.0818_22:00  266.02  n/a     .000
00542>                   SUM=    5.0 01:BCD-PH3-LI    25.34    1.381 1969.0818_22:00  278.21  n/a     .000
00543> #*************************************************************************************************
00544> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
00545> #*************************************************************************************************
00546> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00547> #*************************************************************************************************
00548> R0069:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00549>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .509 1969.0818_22:00  361.76 .634     .000
00550>       [XIMP=.66:TIMP=.71]
00551>       [LOSS= 2 :CN=100.0]
00552>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00553>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00554>       [IaRECimp=   1.50: IaRECper=   6.00]
00555>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00556> R0069:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00557>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .612 1969.0818_22:00  359.93 .631     .000
00558>       [XIMP=.65:TIMP=.70]
00559>       [LOSS= 2 :CN=100.0]
00560>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00561>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00562>       [IaRECimp=   1.50: IaRECper=   6.00]
00563>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00564> R0069:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00565>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .359 1969.0818_22:00  347.21 .609     .000
00566>       [XIMP=.53:TIMP=.63]
00567>       [LOSS= 2 :CN=100.0]
00568>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00569>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00570>       [IaRECimp=   1.50: IaRECper=   6.00]
00571>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00572> R0069:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00573>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .467 1969.0818_22:00  354.61 .622     .000
00574>       [XIMP=.57:TIMP=.67]
00575>       [LOSS= 2 :CN=100.0]
00576>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00577>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00578>       [IaRECimp=   1.50: IaRECper=   6.00]
00579>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00580> R0069:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00581>     ADD HYD               5.0 02:INF-W1         8.92     .509 1969.0818_22:00  361.76  n/a     .000
00582>                     +     5.0 02:INF-W2        10.75     .612 1969.0818_22:00  359.93  n/a     .000
00583>                     +     5.0 02:INF-W3         6.30     .359 1969.0818_22:00  347.21  n/a     .000
00584>                     +     5.0 02:INF-W4         8.18     .467 1969.0818_22:00  354.61  n/a     .000
00585>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.948 1969.0818_22:00  356.79  n/a     .000
00586> ###########################################################################
00587> # CONTINUOUS RAINFALL DATA
00588> ###########################################################################
00589>   ** END OF RUN :   69
00590>
00591> *************************************************************************************************
00592>
00593>
00594>
00595>
00596>
00597>  RUN#:COMMAND#
00598> R0070:C00001-----------------------------------------------------------------------------------------
00599>      START
00600>       [TZERO =    .00 hrs on 19700101]
00601>       [METOUT=   2    (1=imperial, 2=metric output)]
00602>       [NSTORM=   0 ]
00603>       [NRUN  = 0070 ]
00604> #*************************************************************************************************
00605> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00606> #*************************************************************************************************
00607> #  Project Name: Barrhaven Conservancy Development
00608> #  Project Number: 1474
00609> #  Date        : 2021/Oct/18
00610> #  Modeller    : J.Burnett, P.Eng.
00611> #  Updated     : 2022/Dec/13 [LP]
00612> #  Company     : J.F. Sabourin and Associates
00613> #  License #   : 2582634
00614> #*************************************************************************************************
00615> # Ottawa International Airport (1967 - 2003)
00616> R0070:C00002-----------------------------------------------------------------------------------------
00617>   *  READ AES DATA
00618>       [Filename  = YOW_1967_2007.123                                        ]
00619>       [Start_date= 1970.0101: End_date= 1970.1231]
00620>       {DT= 60.min: Length= 8760.hrs: WetHrs=  373: DryHrs= 8387: PTOT= 558.90}
00621>       Maximum average rainfall intensities over
00622>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00623>        35.30    18.30    12.20     6.10     3.63     1.81     1.21     1.46      .99    mm/hr
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00624>        35.30    36.60    36.60    36.60    43.50    43.50    43.50    69.90    71.20    mm
00625>       19700926 19700926 19700926 19700926 19700927 19700817 19700817 19700818 19700926 19700927  date
00626>       Number of rainfall events per following interevent time
00627>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00628>          148      127      109       84       72       60       54       41       30
00629>       Number of events with at least the following durations
00630>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00631>          147       79       40       15        3        0        0        0        0
00632> R0070:C00003------------------------------------------------------------------------------------------
00633>      COMPUTE API
00634>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00635>       {APImax= 76.00: APIavg= 15.84: APImin=   .07}
00636> #*************************************************************************************************************
00637> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
00638> #*************************************************************************************************************
00639> R0070:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00640>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .665 1970.0926_21:00  288.79 .517     .000
00641>       [XIMP=.66:TIMP=.71]
00642>       [LOSS= 2 :CN= 71.0]
00643>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00644>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00645>       [IaRECimp=   1.50: IaRECper=   6.00]
00646>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00647> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
00648> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00649> # Total Volume provided by LID  - 179 m³
00650> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00651> R0070:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00652>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .665 1970.0926_21:00  288.79  n/a     .000
00653>                   out <=    5.0 01:W1-LID         2.45     .001 1970.0202_11:50  288.79  n/a     .000
00654>               overflow <=    5.0 03:W1-LID-Out     6.47     .651 1970.0926_21:00  288.79  n/a     .000
00655>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.1870E+01  m3, N-Ovf=   84, TotDurOvf=  133.hrs}
00656> R0070:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00657>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .792 1970.0926_21:00  285.15 .510     .000
00658>       [XIMP=.65:TIMP=.70]
00659>       [LOSS= 2 :CN= 71.0]
00660>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00661>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00662>       [IaRECimp=   1.50: IaRECper=   6.00]
00663>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00664> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
00665> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00666> # Total Volume provided by LID  - 200 m³
00667> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00668> R0070:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00669>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .792 1970.0926_21:00  285.15  n/a     .000
00670>                   out <=    5.0 01:W2-LID         2.79     .001 1970.0202_11:45  285.14  n/a     .000
00671>               overflow <=    5.0 03:W2-LID-Out     7.96     .775 1970.0926_21:00  285.15  n/a     .000
00672>      {MxStoUsed=.1998E-01  m3, TotOvfVol=.2270E+01  m3, N-Ovf=  102, TotDurOvf=  138.hrs}
00673> R0070:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00674>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .423 1970.0926_21:00  245.92 .440     .000
00675>       [XIMP=.53:TIMP=.63]
00676>       [LOSS= 2 :CN= 71.0]
00677>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00678>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00679>       [IaRECimp=   1.50: IaRECper=   6.00]
00680>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00681> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
00682> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00683> # Total Volume provided by LID  - 96 m³
00684> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00685> R0070:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00686>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .423 1970.0926_21:00  245.92  n/a     .000
00687>                   out <=    5.0 01:W3-LID         1.52     .001 1970.0202_11:40  245.93  n/a     .000
00688>               overflow <=    5.0 03:W3-LID-Out     4.78     .409 1970.0926_21:00  245.92  n/a     .000
00689>      {MxStoUsed=.9597E-02  m3, TotOvfVol=.1175E+01  m3, N-Ovf=   91, TotDurOvf=  141.hrs}
00690> R0070:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00691>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .572 1970.0926_21:00  260.57 .466     .000
00692>       [XIMP=.57:TIMP=.67]
00693>       [LOSS= 2 :CN= 71.0]
00694>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00695>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00696>       [IaRECimp=   1.50: IaRECper=   6.00]
00697>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00698> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
00699> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00700> # Total Volume provided by LID  - 131 m³
00701> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00702> R0070:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00703>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .572 1970.0926_21:00  260.57  n/a     .000
00704>                   out <=    5.0 01:W4-LID         1.99     .001 1970.0202_11:45  260.57  n/a     .000
00705>               overflow <=    5.0 03:W4-LID-Out     6.19     .555 1970.0926_21:00  260.57  n/a     .000
00706>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1614E+01  m3, N-Ovf=   93, TotDurOvf=  141.hrs}
00707> R0070:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00708>     ADD HYD               5.0 02:W1             8.92     .665 1970.0926_21:00  288.79  n/a     .000
00709>                     +     5.0 02:W2            10.75     .792 1970.0926_21:00  285.15  n/a     .000
00710>                     +     5.0 02:W3             6.30     .423 1970.0926_21:00  245.92  n/a     .000
00711>                     +     5.0 02:W4             8.18     .572 1970.0926_21:00  260.57  n/a     .000
00712>                   SUM=    5.0 01:BCD-PH3       34.15    2.451 1970.0926_21:00  272.98  n/a     .000
```

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00713> R0070:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00714>     ADD HYD               5.0 02:W1-LID-Out     6.47     .651 1970.0926_21:00  288.79  n/a     .000
00715>                     +     5.0 02:W2-LID-Out     7.96     .775 1970.0926_21:00  285.15  n/a     .000
00716>                     +     5.0 02:W3-LID-Out     4.78     .409 1970.0926_21:00  245.92  n/a     .000
00717>                     +     5.0 02:W4-LID-Out     6.19     .555 1970.0926_21:00  260.57  n/a     .000
00718>                   SUM=    5.0 01:BCD-PH3-LI    25.41    2.391 1970.0926_21:00  272.71  n/a     .000
00719> #*************************************************************************************************************
00720> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
00721> #*************************************************************************************************************
00722> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00723> #*************************************************************************************************************
00724> R0070:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00725>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .840 1970.0926_21:00  353.78 .633     .000
00726>       [XIMP=.66:TIMP=.71]
00727>       [LOSS= 2 :CN=100.0]
00728>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00729>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00730>       [IaRECimp=   1.50: IaRECper=   6.00]
00731>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00732> R0070:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00733>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75    1.008 1970.0926_21:00  351.90 .630     .000
00734>       [XIMP=.65:TIMP=.70]
00735>       [LOSS= 2 :CN=100.0]
00736>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00737>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00738>       [IaRECimp=   1.50: IaRECper=   6.00]
00739>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00740> R0070:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00741>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .598 1970.0926_21:00  339.10 .607     .000
00742>       [XIMP=.53:TIMP=.63]
00743>       [LOSS= 2 :CN=100.0]
00744>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00745>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00746>       [IaRECimp=   1.50: IaRECper=   6.00]
00747>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00748> R0070:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00749>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .777 1970.0926_21:00  346.75 .620     .000
00750>       [XIMP=.57:TIMP=.67]
00751>       [LOSS= 2 :CN=100.0]
00752>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00753>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00754>       [IaRECimp=   1.50: IaRECper=   6.00]
00755>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00756> R0070:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00757>     ADD HYD               5.0 02:INF-W1         8.92     .840 1970.0926_21:00  353.78  n/a     .000
00758>                     +     5.0 02:INF-W2        10.75    1.008 1970.0926_21:00  351.90  n/a     .000
00759>                     +     5.0 02:INF-W3         6.30     .598 1970.0926_21:00  339.10  n/a     .000
00760>                     +     5.0 02:INF-W4         8.18     .777 1970.0926_21:00  346.75  n/a     .000
00761>                   SUM=    5.0 01:INF-BCD-PH    34.15    3.224 1970.0926_21:00  348.80  n/a     .000
00762> ###############################################################################
00763> # CONTINUOUS RAINFALL DATA
00764> ###############################################################################
00765>   ** END OF RUN :   70
00766>
00767> *************************************************************************************************
00768>
00769>
00770>
00771>
00772>
00773>  RUN#:COMMAND#
00774> R0071:C00001-----------------------------------------------------------------------------------------
00775>      START
00776>       [TZERO =    .00 hrs on 19710101]
00777>       [METOUT=   2    (1=imperial, 2=metric output)]
00778>       [NSTORM=   0 ]
00779>       [NRUN  = 0071 ]
00780> #*************************************************************************************************************
00781> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00782> #*************************************************************************************************************
00783> #  Project Name: Barrhaven Conservancy Development
00784> #  Project Number: 1474
00785> #  Date        : 2021/Oct/18
00786> #  Modeller    : J.Burnett, P.Eng.
00787> #  Updated     : 2022/Dec/13 [LP]
00788> #  Company     : J.F. Sabourin and Associates
00789> #  License #   : 2582634
00790> #*************************************************************************************************************
00791> # Ottawa International Airport (1967 - 2003)
00792> R0071:C00002-----------------------------------------------------------------------------------------
00793>   *  READ AES DATA
00794>       [Filename  = YOW_1967_2007.123                                    ]
00795>       [Start_date= 1971.0101: End_date= 1971.1231]
00796>       {DT= 60.min: Length= 8760.hrs: WetHrs=  412: DryHrs= 8348: PTOT= 522.10}
00797>       Maximum average rainfall intensities over
00798>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00799>        24.60    16.60    11.67     6.13     3.09     1.56     1.06      .79      .54    mm/hr
00800>        24.60    33.20    35.00    36.80    37.10    37.40    38.00    38.00    38.90    mm
00801>       19710810 19710810 19710810 19710810 19710810 19710810 19710811 19710812 19710830  date
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00802>       Number of rainfall events per following interevent time
00803>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00804>          156      123      113       93       72       61       52       42       33
00805>       Number of events with at least the following durations
00806>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00807>          155       81       59       21        2        0        0        0        0
00808> R0071:C00003-------------------------------------------------------------------------------
00809>      COMPUTE API
00810>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00811>       {APImax= 62.22: APIavg= 14.84: APImin=   .36}
00812> #*******************************************************************************************************
00813> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
00814> #*******************************************************************************************************
00815> R0071:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00816>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .432 1971.0810_15:00  258.23 .495     .000
00817>       [XIMP=.66:TIMP=.71]
00818>       [LOSS= 2 :CN= 71.0]
00819>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00820>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00821>       [IaRECimp=   1.50: IaRECper=   6.00]
00822>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00823> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
00824> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00825> # Total Volume provided by LID  - 179 m³
00826> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00827> R0071:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00828>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .432 1971.0810_15:00  258.23  n/a     .000
00829>                   out <=    5.0 01:W1-LID         2.81     .001 1971.0402_ 3:00  258.23  n/a     .000
00830>              overflow <=    5.0 03:W1-LID-Out     6.11     .426 1971.0810_15:00  258.23  n/a     .000
00831>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.1577E+01  m3, N-Ovf=   97, TotDurOvf=  116.hrs}
00832> R0071:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00833>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .513 1971.0810_15:00  254.87 .488     .000
00834>       [XIMP=.65:TIMP=.70]
00835>       [LOSS= 2 :CN= 71.0]
00836>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00837>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00838>       [IaRECimp=   1.50: IaRECper=   6.00]
00839>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00840> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
00841> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00842> # Total Volume provided by LID  - 200 m³
00843> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00844> R0071:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00845>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .513 1971.0810_15:00  254.87  n/a     .000
00846>                   out <=    5.0 01:W2-LID         3.21     .001 1971.0402_ 2:45  254.86  n/a     .000
00847>              overflow <=    5.0 03:W2-LID-Out     7.54     .506 1971.0810_15:00  254.87  n/a     .000
00848>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.1922E+01  m3, N-Ovf=   94, TotDurOvf=  122.hrs}
00849> R0071:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00850>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .262 1971.0810_15:00  218.03 .418     .000
00851>       [XIMP=.53:TIMP=.63]
00852>       [LOSS= 2 :CN= 71.0]
00853>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00854>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00855>       [IaRECimp=   1.50: IaRECper=   6.00]
00856>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00857> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
00858> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00859> # Total Volume provided by LID  - 96 m³
00860> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00861> R0071:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00862>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .262 1971.0810_15:00  218.03  n/a     .000
00863>                   out <=    5.0 01:W3-LID         1.77     .001 1971.0402_ 2:40  218.03  n/a     .000
00864>              overflow <=    5.0 03:W3-LID-Out     4.53     .257 1971.0810_15:00  218.03  n/a     .000
00865>      {MxStoUsed=.9597E-02  m3, TotOvfVol=.9883E+00  m3, N-Ovf=  100, TotDurOvf=  126.hrs}
00866> R0071:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00867>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .359 1971.0810_15:00  231.57 .444     .000
00868>       [XIMP=.57:TIMP=.67]
00869>       [LOSS= 2 :CN= 71.0]
00870>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00871>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00872>       [IaRECimp=   1.50: IaRECper=   6.00]
00873>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00874> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
00875> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00876> # Total Volume provided by LID  - 131 m³
00877> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00878> R0071:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00879>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .359 1971.0810_15:00  231.57  n/a     .000
00880>                   out <=    5.0 01:W4-LID         2.30     .001 1971.0402_ 2:35  231.57  n/a     .000
00881>              overflow <=    5.0 03:W4-LID-Out     5.88     .353 1971.0810_15:00  231.57  n/a     .000
00882>      {MxStoUsed=.1309E-01  m3, TotOvfVol=.1362E+01  m3, N-Ovf=   97, TotDurOvf=  127.hrs}
00883> R0071:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00884>     ADD HYD               5.0 02:W1             8.92     .432 1971.0810_15:00  258.23  n/a     .000
00885>                     +     5.0 02:W2            10.75     .513 1971.0810_15:00  254.87  n/a     .000
00886>                     +     5.0 02:W3             6.30     .262 1971.0810_15:00  218.03  n/a     .000
00887>                     +     5.0 02:W4             8.18     .359 1971.0810_15:00  231.57  n/a     .000
00888>                  SUM=     5.0 01:BCD-PH3       34.15    1.566 1971.0810_15:00  243.37  n/a     .000
00889> R0071:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00890>     ADD HYD               5.0 02:W1-LID-Out     6.11     .426 1971.0810_15:00  258.23  n/a     .000
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00891>                     +     5.0 02:W2-LID-Out     7.54     .506 1971.0810_15:00  254.87  n/a     .000
00892>                     +     5.0 02:W3-LID-Out     4.53     .257 1971.0810_15:00  218.03  n/a     .000
00893>                     +     5.0 02:W4-LID-Out     5.88     .353 1971.0810_15:00  231.57  n/a     .000
00894>                   SUM=    5.0 01:BCD-PH3-LI    24.06    1.542 1971.0810_15:00  243.09  n/a     .000
00895> #*************************************************************************************************************
00896> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
00897> #*************************************************************************************************************
00898> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
00899> #*************************************************************************************************************
00900> R0071:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00901>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .577 1971.0810_15:00  313.64 .601     .000
00902>       [XIMP=.66:TIMP=.71]
00903>       [LOSS= 2 :CN=100.0]
00904>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00905>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00906>       [IaRECimp=   1.50: IaRECper=   6.00]
00907>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00908> R0071:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00909>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .692 1971.0810_15:00  311.74 .597     .000
00910>       [XIMP=.65:TIMP=.70]
00911>       [LOSS= 2 :CN=100.0]
00912>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00913>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
00914>       [IaRECimp=   1.50: IaRECper=   6.00]
00915>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00916> R0071:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00917>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .405 1971.0810_15:00  298.09 .571     .000
00918>       [XIMP=.53:TIMP=.63]
00919>       [LOSS= 2 :CN=100.0]
00920>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00921>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
00922>       [IaRECimp=   1.50: IaRECper=   6.00]
00923>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00924> R0071:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00925>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .527 1971.0810_15:00  305.79 .586     .000
00926>       [XIMP=.57:TIMP=.67]
00927>       [LOSS= 2 :CN=100.0]
00928>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00929>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
00930>       [IaRECimp=   1.50: IaRECper=   6.00]
00931>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
00932> R0071:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00933>     ADD HYD               5.0 02:INF-W1         8.92     .577 1971.0810_15:00  313.64  n/a     .000
00934>                     +     5.0 02:INF-W2        10.75     .692 1971.0810_15:00  311.74  n/a     .000
00935>                     +     5.0 02:INF-W3         6.30     .405 1971.0810_15:00  298.09  n/a     .000
00936>                     +     5.0 02:INF-W4         8.18     .527 1971.0810_15:00  305.79  n/a     .000
00937>                   SUM=    5.0 01:INF-BCD-PH    34.15    2.201 1971.0810_15:00  308.29  n/a     .000
00938> ###############################################################################
00939> # CONTINUOUS RAINFALL DATA
00940> ###############################################################################
00941>   ** END OF RUN :   71
00942>
00943> *********************************************************************************************
00944>
00945>
00946>
00947>
00948>
00949>  RUN#:COMMAND#
00950> R0072:C00001-----------------------------------------------------------------------------------------
00951>       START
00952>       [TZERO =    .00 hrs on 19720101]
00953>       [METOUT=   2    (1=imperial, 2=metric output)]
00954>       [NSTORM=   0 ]
00955>       [NRUN  = 0072 ]
00956> #*************************************************************************************************************
00957> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00958> #*************************************************************************************************************
00959> #  Project Name: Barrhaven Conservancy Development
00960> #  Project Number: 1474
00961> #  Date        : 2021/Oct/18
00962> #  Modeller    : J.Burnett, P.Eng.
00963> #  Updated     : 2022/Dec/13 [LP]
00964> #  Company     : J.F. Sabourin and Associates
00965> #  License #   : 2582634
00966> #*************************************************************************************************************
00967> # Ottawa International Airport (1967 - 2003)
00968> R0072:C00002-----------------------------------------------------------------------------------------
00969>   *  READ AES DATA
00970>       [Filename  = YOW_1967_2007.123                                          ]
00971>       [Start_date= 1972.0101: End_date= 1972.1230]
00972>       {DT= 60.min: Length= 8760.hrs: WetHrs=  489: DryHrs= 8271: PTOT= 784.30}
00973>       Maximum average rainfall intensities over
00974>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00975>        37.30    19.15    12.97     8.15     4.50     2.53     2.00     1.71     1.17    mm/hr
00976>        37.30    38.30    38.90    48.90    54.00    60.70    72.10    82.20    84.20    mm
00977>       19720712 19720712 19720807 19720808 19720808 19720808 19720713 19720714 19720715  date
00978>       Number of rainfall events per following interevent time
00979>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
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00980>          170      133      122       86       76       60       45       41       31
00981>       Number of events with at least the following durations
00982>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00983>          169       96       58       21        5        0        0        0        0
00984> R0072:C00003------------------------------------------------------------------------------------------
00985>      COMPUTE API
00986>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00987>       {APImax=108.88: APIavg= 21.70: APImin=   .00}
00988> #*************************************************************************************************
00989> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
00990> #*************************************************************************************************
00991> R0072:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00992>     CONTINUOUS STANDHYD   5.0 01:W1            8.92     .698 1972.0712_ 4:00  447.90 .571     .000
00993>       [XIMP=.66:TIMP=.71]
00994>       [LOSS= 2 :CN= 71.0]
00995>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00996>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
00997>       [IaRECimp=   1.50: IaRECper=   6.00]
00998>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00999> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
01000> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01001> # Total Volume provided by LID  - 179 m³
01002> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01003> R0072:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01004>     ROUTE RESERVOIR ->    5.0 02:W1            8.92     .698 1972.0712_ 4:00  447.90  n/a     .000
01005>                   out <=    5.0 01:W1-LID         1.94     .001 1972.0413_10:00  447.91  n/a     .000
01006>              overflow <=    5.0 03:W1-LID-Out     6.98     .683 1972.0712_ 4:00  447.90  n/a     .000
01007>       {MxStoUsed=.1789E-01  m3, TotOvfVol=.3126E+01  m3, N-Ovf=  138, TotDurOvf=  198.hrs}
01008> R0072:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01009>     CONTINUOUS STANDHYD   5.0 01:W2           10.75     .831 1972.0712_ 4:00  442.89 .565     .000
01010>       [XIMP=.65:TIMP=.70]
01011>       [LOSS= 2 :CN= 71.0]
01012>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01013>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01014>       [IaRECimp=   1.50: IaRECper=   6.00]
01015>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01016> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
01017> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01018> # Total Volume provided by LID  - 200 m³
01019> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01020> R0072:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01021>     ROUTE RESERVOIR ->    5.0 02:W2           10.75     .831 1972.0712_ 4:00  442.89  n/a     .000
01022>                   out <=    5.0 01:W2-LID         2.20     .001 1972.0413_ 9:55  442.88  n/a     .000
01023>              overflow <=    5.0 03:W2-LID-Out     8.55     .812 1972.0712_ 4:00  442.89  n/a     .000
01024>       {MxStoUsed=.2000E-01  m3, TotOvfVol=.3786E+01  m3, N-Ovf=  143, TotDurOvf=  204.hrs}
01025> R0072:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01026>     CONTINUOUS STANDHYD   5.0 01:W3            6.30     .442 1972.0712_ 4:00  391.20 .499     .000
01027>       [XIMP=.53:TIMP=.63]
01028>       [LOSS= 2 :CN= 71.0]
01029>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01030>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01031>       [IaRECimp=   1.50: IaRECper=   6.00]
01032>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01033> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
01034> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01035> # Total Volume provided by LID  - 96 m³
01036> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01037> R0072:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01038>     ROUTE RESERVOIR ->    5.0 02:W3            6.30     .442 1972.0712_ 4:00  391.20  n/a     .000
01039>                   out <=    5.0 01:W3-LID         1.17     .001 1972.0413_ 9:50  391.21  n/a     .000
01040>              overflow <=    5.0 03:W3-LID-Out     5.13     .426 1972.0712_ 4:00  391.20  n/a     .000
01041>       {MxStoUsed=.9599E-02  m3, TotOvfVol=.2008E+01  m3, N-Ovf=  141, TotDurOvf=  210.hrs}
01042> R0072:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01043>     CONTINUOUS STANDHYD   5.0 01:W4            8.18     .598 1972.0712_ 4:00  411.36 .525     .000
01044>       [XIMP=.57:TIMP=.67]
01045>       [LOSS= 2 :CN= 71.0]
01046>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01047>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01048>       [IaRECimp=   1.50: IaRECper=   6.00]
01049>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01050> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
01051> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01052> # Total Volume provided by LID  - 131 m³
01053> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01054> R0072:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01055>     ROUTE RESERVOIR ->    5.0 02:W4            8.18     .598 1972.0712_ 4:00  411.36  n/a     .000
01056>                   out <=    5.0 01:W4-LID         1.54     .001 1972.0413_ 9:55  411.37  n/a     .000
01057>              overflow <=    5.0 03:W4-LID-Out     6.64     .579 1972.0712_ 4:00  411.36  n/a     .000
01058>       {MxStoUsed=.1310E-01  m3, TotOvfVol=.2733E+01  m3, N-Ovf=  151, TotDurOvf=  209.hrs}
01059> R0072:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01060>     ADD HYD               5.0 02:W1            8.92     .698 1972.0712_ 4:00  447.90  n/a     .000
01061>                       +     5.0 02:W2           10.75     .831 1972.0712_ 4:00  442.89  n/a     .000
01062>                       +     5.0 02:W3            6.30     .442 1972.0712_ 4:00  391.20  n/a     .000
01063>                       +     5.0 02:W4            8.18     .598 1972.0712_ 4:00  411.36  n/a     .000
01064>                     SUM=    5.0 01:BCD-PH3      34.15    2.569 1972.0712_ 4:00  427.11  n/a     .000
01065> R0072:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01066>     ADD HYD               5.0 02:W1-LID-Out     6.98     .683 1972.0712_ 4:00  447.90  n/a     .000
01067>                       +     5.0 02:W2-LID-Out     8.55     .812 1972.0712_ 4:00  442.89  n/a     .000
01068>                       +     5.0 02:W3-LID-Out     5.13     .426 1972.0712_ 4:00  391.20  n/a     .000
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01069>                    +     5.0 02:W4-LID-Out     6.64     .579 1972.0712_ 4:00  411.36  n/a     .000
01070>                  SUM=    5.0 01:BCD-PH3-LI    27.30    2.501 1972.0712_ 4:00  426.78  n/a     .000
01071> #*******************************************************************************************************
01072> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
01073> #*******************************************************************************************************
01074> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01075> #*******************************************************************************************************
01076> R0072:C00014-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01077>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .900 1972.0712_ 4:00  542.44 .692     .000
01078>       [XIMP=.66:TIMP=.71]
01079>       [LOSS= 2 :CN=100.0]
01080>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01081>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01082>       [IaRECimp=   1.50: IaRECper=   6.00]
01083>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01084> R0072:C00015-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01085>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75    1.068 1972.0712_ 4:00  540.07 .689     .000
01086>       [XIMP=.65:TIMP=.70]
01087>       [LOSS= 2 :CN=100.0]
01088>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01089>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01090>       [IaRECimp=   1.50: IaRECper=   6.00]
01091>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01092> R0072:C00016-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01093>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .635 1972.0712_ 4:00  524.93 .669     .000
01094>       [XIMP=.53:TIMP=.63]
01095>       [LOSS= 2 :CN=100.0]
01096>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01097>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01098>       [IaRECimp=   1.50: IaRECper=   6.00]
01099>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01100> R0072:C00017-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01101>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .824 1972.0712_ 4:00  534.52 .682     .000
01102>       [XIMP=.57:TIMP=.67]
01103>       [LOSS= 2 :CN=100.0]
01104>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01105>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01106>       [IaRECimp=   1.50: IaRECper=   6.00]
01107>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01108> R0072:C00018-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01109>     ADD HYD               5.0 02:INF-W1         8.92     .900 1972.0712_ 4:00  542.44  n/a     .000
01110>                    +      5.0 02:INF-W2        10.75    1.068 1972.0712_ 4:00  540.07  n/a     .000
01111>                    +      5.0 02:INF-W3         6.30     .635 1972.0712_ 4:00  524.93  n/a     .000
01112>                    +      5.0 02:INF-W4         8.18     .824 1972.0712_ 4:00  534.51  n/a     .000
01113>                  SUM=     5.0 01:INF-BCD-PH    34.15    3.427 1972.0712_ 4:00  536.57  n/a     .000
01114> ##############################################################################
01115> # CONTINUOUS RAINFALL DATA
01116> ##############################################################################
01117>   ** END OF RUN :   72
01118>
01119> *******************************************************************************************************
01120>
01121>
01122>
01123>
01124>
01125>  RUN#:COMMAND#
01126> R0073:C00001-----------------------------------------------------------------------------------------------
01127>      START
01128>       [TZERO =    .00 hrs on 19730101]
01129>       [METOUT=   2    (1=imperial, 2=metric output)]
01130>       [NSTORM=   0 ]
01131>       [NRUN  = 0073 ]
01132> #*******************************************************************************************************
01133> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01134> #*******************************************************************************************************
01135> #  Project Name: Barrhaven Conservancy Development
01136> #  Project Number: 1474
01137> #  Date         : 2021/Oct/18
01138> #  Modeller     : J.Burnett, P.Eng.
01139> #  Updated      : 2022/Dec/13 [LP]
01140> #  Company      : J.F. Sabourin and Associates
01141> #  License #    : 2582634
01142> #*******************************************************************************************************
01143> # Ottawa International Airport (1967 - 2003)
01144> R0073:C00002-----------------------------------------------------------------------------------------------
01145>   *  READ AES DATA
01146>       [Filename  = YOW_1967_2007.123                                          ]
01147>       [Start_date= 1973.0101: End_date= 1973.1231]
01148>       {DT= 60.min: Length= 8760.hrs: WetHrs=  549: DryHrs= 8211: PTOT= 744.90}
01149>       Maximum average rainfall intensities over
01150>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01151>        30.00    17.25    12.33     7.10     3.63     1.89     1.28      .96      .96    mm/hr
01152>        30.00    34.50    37.00    42.60    43.60    45.40    46.00    46.00    69.20    mm
01153>       19730611 19730808 19730808 19730808 19730808 19730616 19730616 19730616 19731005  date
01154>       Number of rainfall events per following interevent time
01155>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01156>          200      164      143      108       79       61       54       43       37
01157>       Number of events with at least the following durations
```

```
01158>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01159>          200      102       66       20        4        0        0        0        0
01160> R0073:C00003------------------------------------------------------------------------------
01161>      COMPUTE API
01162>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01163>       {APImax= 78.26: APIavg= 20.56: APImin=   .06}
01164> #*******************************************************************************************************
01165> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
01166> #*******************************************************************************************************
01167> R0073:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01168>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .542 1973.0611_17:00  400.85 .538     .000
01169>       [XIMP=.66:TIMP=.71]
01170>       [LOSS= 2 :CN= 71.0]
01171>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01172>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01173>       [IaRECimp=   1.50: IaRECper=   6.00]
01174>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01175> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
01176> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01177> # Total Volume provided by LID  - 179 m³
01178> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01179> R0073:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01180>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .542 1973.0611_17:00  400.85  n/a     .000
01181>                 out <=    5.0 01:W1-LID         2.08     .001 1973.0317_ 7:55  400.86  n/a     .000
01182>             overflow <=   5.0 03:W1-LID-Out     6.84     .532 1973.0611_17:00  400.85  n/a     .000
01183>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2742E+01  m3, N-Ovf=  111, TotDurOvf=  188.hrs}
01184> R0073:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01185>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .644 1973.0611_17:00  396.04 .532     .000
01186>       [XIMP=.65:TIMP=.70]
01187>       [LOSS= 2 :CN= 71.0]
01188>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01189>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01190>       [IaRECimp=   1.50: IaRECper=   6.00]
01191>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01192> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
01193> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01194> # Total Volume provided by LID  - 200 m³
01195> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01196> R0073:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01197>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .644 1973.0611_17:00  396.04  n/a     .000
01198>                 out <=    5.0 01:W2-LID         2.37     .001 1973.0317_ 7:50  396.03  n/a     .000
01199>             overflow <=   5.0 03:W2-LID-Out     8.38     .632 1973.0611_17:00  396.04  n/a     .000
01200>      {MxStoUsed=.1997E-01  m3, TotOvfVol=.3320E+01  m3, N-Ovf=  109, TotDurOvf=  194.hrs}
01201> R0073:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01202>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .338 1973.0808_20:00  344.92 .463     .000
01203>       [XIMP=.53:TIMP=.63]
01204>       [LOSS= 2 :CN= 71.0]
01205>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01206>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01207>       [IaRECimp=   1.50: IaRECper=   6.00]
01208>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01209> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
01210> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01211> # Total Volume provided by LID  - 96 m³
01212> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01213> R0073:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01214>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .338 1973.0808_20:00  344.92  n/a     .000
01215>                 out <=    5.0 01:W3-LID         1.27     .001 1973.0317_ 7:50  344.93  n/a     .000
01216>             overflow <=   5.0 03:W3-LID-Out     5.03     .327 1973.0808_20:00  344.92  n/a     .000
01217>      {MxStoUsed=.9591E-02  m3, TotOvfVol=.1734E+01  m3, N-Ovf=  115, TotDurOvf=  196.hrs}
01218> R0073:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01219>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .457 1973.0611_17:00  364.28 .489     .000
01220>       [XIMP=.57:TIMP=.67]
01221>       [LOSS= 2 :CN= 71.0]
01222>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01223>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01224>       [IaRECimp=   1.50: IaRECper=   6.00]
01225>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01226> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
01227> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01228> # Total Volume provided by LID  - 131 m³
01229> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01230> R0073:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01231>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .457 1973.0611_17:00  364.28  n/a     .000
01232>                 out <=    5.0 01:W4-LID         1.67     .001 1973.0317_ 7:50  364.28  n/a     .000
01233>             overflow <=   5.0 03:W4-LID-Out     6.51     .445 1973.0611_17:00  364.28  n/a     .000
01234>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.2372E+01  m3, N-Ovf=  115, TotDurOvf=  197.hrs}
01235> R0073:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01236>     ADD HYD               5.0 02:W1             8.92     .542 1973.0611_17:00  400.85  n/a     .000
01237>                     +     5.0 02:W2            10.75     .644 1973.0611_17:00  396.04  n/a     .000
01238>                     +     5.0 02:W3             6.30     .338 1973.0808_20:00  344.92  n/a     .000
01239>                     +     5.0 02:W4             8.18     .457 1973.0611_17:00  364.28  n/a     .000
01240>                   SUM=    5.0 01:BCD-PH3       34.15    1.977 1973.0611_17:00  380.26  n/a     .000
01241> R0073:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01242>     ADD HYD               5.0 02:W1-LID-Out     6.84     .532 1973.0611_17:00  400.85  n/a     .000
01243>                     +     5.0 02:W2-LID-Out     8.38     .632 1973.0611_17:00  396.04  n/a     .000
01244>                     +     5.0 02:W3-LID-Out     5.03     .327 1973.0808_20:00  344.92  n/a     .000
01245>                     +     5.0 02:W4-LID-Out     6.51     .445 1973.0611_17:00  364.28  n/a     .000
01246>                   SUM=    5.0 01:BCD-PH3-LI    26.76    1.935 1973.0611_17:00  379.94  n/a     .000
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01247> #*******************************************************************************************************************
01248> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
01249> #*******************************************************************************************************************
01250> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01251> #*******************************************************************************************************************
01252> R0073:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01253>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .702 1973.0611_17:00  493.83 .663     .000
01254>       [XIMP=.66:TIMP=.71]
01255>       [LOSS= 2 :CN=100.0]
01256>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01257>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01258>       [IaRECimp=   1.50: IaRECper=   6.00]
01259>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01260> R0073:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01261>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .842 1973.0611_17:00  491.61 .660     .000
01262>       [XIMP=.65:TIMP=.70]
01263>       [LOSS= 2 :CN=100.0]
01264>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01265>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01266>       [IaRECimp=   1.50: IaRECper=   6.00]
01267>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01268> R0073:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01269>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .492 1973.0611_17:00  476.58 .640     .000
01270>       [XIMP=.53:TIMP=.63]
01271>       [LOSS= 2 :CN=100.0]
01272>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01273>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01274>       [IaRECimp=   1.50: IaRECper=   6.00]
01275>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01276> R0073:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01277>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .641 1973.0611_17:00  485.56 .652     .000
01278>       [XIMP=.57:TIMP=.67]
01279>       [LOSS= 2 :CN=100.0]
01280>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01281>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01282>       [IaRECimp=   1.50: IaRECper=   6.00]
01283>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01284> R0073:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01285>     ADD HYD               5.0 02:INF-W1         8.92     .702 1973.0611_17:00  493.83  n/a     .000
01286>                     +     5.0 02:INF-W2        10.75     .842 1973.0611_17:00  491.61  n/a     .000
01287>                     +     5.0 02:INF-W3         6.30     .492 1973.0611_17:00  476.58  n/a     .000
01288>                     +     5.0 02:INF-W4         8.18     .641 1973.0611_17:00  485.56  n/a     .000
01289>                   SUM=    5.0 01:INF-BCD-PH    34.15    2.677 1973.0611_17:00  487.97  n/a     .000
01290> ###############################################################################
01291> # CONTINUOUS RAINFALL DATA
01292> ###############################################################################
01293>   ** END OF RUN :   73
01294>
01295> ********************************************************************************************************
01296>
01297>
01298>
01299>
01300>
01301>  RUN#:COMMAND#
01302> R0074:C00001-------------------------------------------------------------------------------------------
01303>      START
01304>       [TZERO =    .00 hrs on 19740101]
01305>       [METOUT=   2    (1=imperial, 2=metric output)]
01306>       [NSTORM=   0 ]
01307>       [NRUN  = 0074 ]
01308> #*******************************************************************************************************************
01309> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01310> #*******************************************************************************************************************
01311> #  Project Name: Barrhaven Conservancy Development
01312> #  Project Number: 1474
01313> #  Date         : 2021/Oct/18
01314> #  Modeller     : J.Burnett, P.Eng.
01315> #  Updated      : 2022/Dec/13 [LP]
01316> #  Company      : J.F. Sabourin and Associates
01317> #  License #    : 2582634
01318> #*******************************************************************************************************************
01319> # Ottawa International Airport (1967 - 2003)
01320> R0074:C00002-------------------------------------------------------------------------------------------
01321>   *  READ AES DATA
01322>       [Filename  = YOW_1967_2007.123                                          ]
01323>       [Start_date= 1974.0101: End_date= 1974.1231]
01324>       {DT= 60.min: Length= 8760.hrs: WetHrs=  320: DryHrs= 8440: PTOT= 386.20}
01325>       Maximum average rainfall intensities over
01326>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01327>        20.60    15.40    10.37     5.18     2.98     1.63     1.08      .81      .54    mm/hr
01328>        20.60    30.80    31.10    31.10    35.70    39.00    39.00    39.00    39.00    mm
01329>       19740718 19740719 19740719 19740719 19740305 19740305 19740306 19740306 19740307  date
01330>       Number of rainfall events per following interevent time
01331>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01332>          129      105       93       77       63       50       38       33       23
01333>       Number of events with at least the following durations
01334>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01335>          128       66       32       10        3        0        0        0        0
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01336> R0074:C00003------------------------------------------------------------------------------------------
01337>      COMPUTE API
01338>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01339>       {APImax= 52.93: APIavg= 11.36: APImin=   .00}
01340> #*******************************************************************************************************
01341> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
01342> #*******************************************************************************************************
01343> R0074:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01344>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .343 1974.0719_ 0:00  183.65 .476     .000
01345>       [XIMP=.66:TIMP=.71]
01346>       [LOSS= 2 :CN= 71.0]
01347>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01348>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01349>       [IaRECimp=   1.50: IaRECper=   6.00]
01350>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01351> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
01352> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01353> # Total Volume provided by LID  - 179 m³
01354> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01355> R0074:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01356>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .343 1974.0719_ 0:00  183.65  n/a     .000
01357>                   out <=    5.0 01:W1-LID         3.10     .001 1974.0222_14:45  183.65  n/a     .000
01358>              overflow <=    5.0 03:W1-LID-Out     5.82     .340 1974.0719_ 0:00  183.65  n/a     .000
01359>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.1069E+01  m3, N-Ovf=   77, TotDurOvf=   95.hrs}
01360> R0074:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01361>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .407 1974.0719_ 0:00  181.19 .469     .000
01362>       [XIMP=.65:TIMP=.70]
01363>       [LOSS= 2 :CN= 71.0]
01364>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01365>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01366>       [IaRECimp=   1.50: IaRECper=   6.00]
01367>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01368> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
01369> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01370> # Total Volume provided by LID  - 200 m³
01371> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01372> R0074:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01373>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .407 1974.0719_ 0:00  181.19  n/a     .000
01374>                   out <=    5.0 01:W2-LID         3.53     .001 1974.0222_14:30  181.19  n/a     .000
01375>              overflow <=    5.0 03:W2-LID-Out     7.22     .403 1974.0719_ 0:00  181.19  n/a     .000
01376>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.1309E+01  m3, N-Ovf=   88, TotDurOvf=  101.hrs}
01377> R0074:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01378>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .201 1974.0719_ 0:00  153.93 .399     .000
01379>       [XIMP=.53:TIMP=.63]
01380>       [LOSS= 2 :CN= 71.0]
01381>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01382>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01383>       [IaRECimp=   1.50: IaRECper=   6.00]
01384>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01385> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
01386> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01387> # Total Volume provided by LID  - 96 m³
01388> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01389> R0074:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01390>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .201 1974.0719_ 0:00  153.93  n/a     .000
01391>                   out <=    5.0 01:W3-LID         1.95     .001 1974.0222_14:30  153.93  n/a     .000
01392>              overflow <=    5.0 03:W3-LID-Out     4.35     .199 1974.0719_ 0:00  153.93  n/a     .000
01393>      {MxStoUsed=.9595E-02  m3, TotOvfVol=.6700E+00  m3, N-Ovf=   85, TotDurOvf=  103.hrs}
01394> R0074:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01395>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .278 1974.0719_ 0:00  163.80 .424     .000
01396>       [XIMP=.57:TIMP=.67]
01397>       [LOSS= 2 :CN= 71.0]
01398>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01399>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01400>       [IaRECimp=   1.50: IaRECper=   6.00]
01401>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01402> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
01403> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01404> # Total Volume provided by LID  - 131 m³
01405> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01406> R0074:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01407>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .278 1974.0719_ 0:00  163.80  n/a     .000
01408>                   out <=    5.0 01:W4-LID         2.53     .001 1974.0222_14:25  163.80  n/a     .000
01409>              overflow <=    5.0 03:W4-LID-Out     5.65     .275 1974.0719_ 0:00  163.80  n/a     .000
01410>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.9248E+00  m3, N-Ovf=   91, TotDurOvf=  103.hrs}
01411> R0074:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01412>     ADD HYD               5.0 02:W1             8.92     .343 1974.0719_ 0:00  183.65  n/a     .000
01413>                     +     5.0 02:W2            10.75     .407 1974.0719_ 0:00  181.19  n/a     .000
01414>                     +     5.0 02:W3             6.30     .201 1974.0719_ 0:00  153.93  n/a     .000
01415>                     +     5.0 02:W4             8.18     .278 1974.0719_ 0:00  163.80  n/a     .000
01416>                   SUM=    5.0 01:BCD-PH3       34.15    1.229 1974.0719_ 0:00  172.64  n/a     .000
01417> R0074:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01418>     ADD HYD               5.0 02:W1-LID-Out     5.82     .340 1974.0719_ 0:00  183.65  n/a     .000
01419>                     +     5.0 02:W2-LID-Out     7.22     .403 1974.0719_ 0:00  181.19  n/a     .000
01420>                     +     5.0 02:W3-LID-Out     4.35     .199 1974.0719_ 0:00  153.93  n/a     .000
01421>                     +     5.0 02:W4-LID-Out     5.65     .275 1974.0719_ 0:00  163.80  n/a     .000
01422>                   SUM=    5.0 01:BCD-PH3-LI    23.05    1.217 1974.0719_ 0:00  172.40  n/a     .000
01423> #*******************************************************************************************************
01424> #                 Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
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01425> #*************************************************************************************************************
01426> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01427> #*************************************************************************************************************
01428> R0074:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01429>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .453 1974.0719_ 0:00  221.72 .574     .000
01430>       [XIMP=.66:TIMP=.71]
01431>       [LOSS= 2 :CN=100.0]
01432>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01433>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01434>       [IaRECimp=   1.50: IaRECper=   6.00]
01435>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01436> R0074:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01437>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .530 1974.0719_ 0:00  220.25 .570     .000
01438>       [XIMP=.65:TIMP=.70]
01439>       [LOSS= 2 :CN=100.0]
01440>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01441>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01442>       [IaRECimp=   1.50: IaRECper=   6.00]
01443>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01444> R0074:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01445>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .312 1974.0719_ 0:00  209.53 .543     .000
01446>       [XIMP=.53:TIMP=.63]
01447>       [LOSS= 2 :CN=100.0]
01448>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01449>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01450>       [IaRECimp=   1.50: IaRECper=   6.00]
01451>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01452> R0074:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01453>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .410 1974.0719_ 0:00  215.51 .558     .000
01454>       [XIMP=.57:TIMP=.67]
01455>       [LOSS= 2 :CN=100.0]
01456>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01457>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01458>       [IaRECimp=   1.50: IaRECper=   6.00]
01459>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01460> R0074:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01461>     ADD HYD               5.0 02:INF-W1         8.92     .453 1974.0719_ 0:00  221.72  n/a     .000
01462>                     +     5.0 02:INF-W2        10.75     .530 1974.0719_ 0:00  220.25  n/a     .000
01463>                     +     5.0 02:INF-W3         6.30     .312 1974.0719_ 0:00  209.53  n/a     .000
01464>                     +     5.0 02:INF-W4         8.18     .410 1974.0719_ 0:00  215.51  n/a     .000
01465>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.705 1974.0719_ 0:00  217.52  n/a     .000
01466> ###############################################################################
01467> # CONTINUOUS RAINFALL DATA
01468> ###############################################################################
01469>   ** END OF RUN :   74
01470>
01471> *************************************************************************************************************
01472>
01473>
01474>
01475>
01476>
01477>  RUN#:COMMAND#
01478> R0075:C00001-----------------------------------------------------------------------------------------------
01479>      START
01480>       [TZERO =    .00 hrs on 19750101]
01481>       [METOUT=   2    (1=imperial, 2=metric output)]
01482>       [NSTORM=   0 ]
01483>       [NRUN  = 0075 ]
01484> #*************************************************************************************************************
01485> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01486> #*************************************************************************************************************
01487> #  Project Name: Barrhaven Conservancy Development
01488> #  Project Number: 1474
01489> #  Date        : 2021/Oct/18
01490> #  Modeller    : J.Burnett, P.Eng.
01491> #  Updated     : 2022/Dec/13 [LP]
01492> #  Company     : J.F. Sabourin and Associates
01493> #  License #   : 2582634
01494> #*************************************************************************************************************
01495> # Ottawa International Airport (1967 - 2003)
01496> R0075:C00002-----------------------------------------------------------------------------------------------
01497>   *  READ AES DATA
01498>       [Filename  = YOW_1967_2007.123                                          ]
01499>       [Start_date= 1975.0101: End_date= 1975.1231]
01500>       {DT= 60.min: Length= 8760.hrs: WetHrs=  344: DryHrs= 8416: PTOT= 535.50}
01501>       Maximum average rainfall intensities over
01502>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01503>        34.80    18.40    12.53     6.32     3.33     1.73     1.15      .87      .62    mm/hr
01504>        34.80    36.80    37.60    37.90    40.00    41.50    41.50    41.80    44.40    mm
01505>       19750708 19750720 19750720 19750720 19750721 19750721 19750721 19750721 19750928  date
01506>       Number of rainfall events per following interevent time
01507>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01508>          136      118       99       78       61       49       40       33       25
01509>       Number of events with at least the following durations
01510>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01511>          135       70       40       17        1        0        0        0        0
01512> R0075:C00003-----------------------------------------------------------------------------------------------
01513>      COMPUTE API
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01514>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01515>       {APImax= 73.23: APIavg= 15.16: APImin=   .00}
01516> #*******************************************************************************************************
01517> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
01518> #*******************************************************************************************************
01519> R0075:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01520>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .621 1975.0708_17:00  284.52 .531     .000
01521>       [XIMP=.66:TIMP=.71]
01522>       [LOSS= 2 :CN= 71.0]
01523>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01524>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01525>       [IaRECimp=   1.50: IaRECper=   6.00]
01526>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01527> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
01528> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01529> # Total Volume provided by LID  - 179 m³
01530> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01531> R0075:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01532>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .621 1975.0708_17:00  284.52  n/a     .000
01533>                   out <=    5.0 01:W1-LID         2.36     .001 1975.0109_ 8:40  284.53  n/a     .000
01534>              overflow <=    5.0 03:W1-LID-Out     6.56     .609 1975.0708_17:00  284.52  n/a     .000
01535>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.1866E+01  m3, N-Ovf=   92, TotDurOvf=  117.hrs}
01536> R0075:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01537>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .738 1975.0708_17:00  280.95 .525     .000
01538>       [XIMP=.65:TIMP=.70]
01539>       [LOSS= 2 :CN= 71.0]
01540>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01541>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01542>       [IaRECimp=   1.50: IaRECper=   6.00]
01543>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01544> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
01545> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01546> # Total Volume provided by LID  - 200 m³
01547> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01548> R0075:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01549>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .738 1975.0708_17:00  280.95  n/a     .000
01550>                   out <=    5.0 01:W2-LID         2.68     .001 1975.0109_ 8:35  280.95  n/a     .000
01551>              overflow <=    5.0 03:W2-LID-Out     8.07     .724 1975.0708_17:00  280.95  n/a     .000
01552>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2268E+01  m3, N-Ovf=  100, TotDurOvf=  122.hrs}
01553> R0075:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01554>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .380 1975.0708_17:00  242.53 .453     .000
01555>       [XIMP=.53:TIMP=.63]
01556>       [LOSS= 2 :CN= 71.0]
01557>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01558>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01559>       [IaRECimp=   1.50: IaRECper=   6.00]
01560>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01561> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
01562> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01563> # Total Volume provided by LID  - 96 m³
01564> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01565> R0075:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01566>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .380 1975.0708_17:00  242.53  n/a     .000
01567>                   out <=    5.0 01:W3-LID         1.45     .001 1975.0109_ 8:35  242.53  n/a     .000
01568>              overflow <=    5.0 03:W3-LID-Out     4.85     .369 1975.0708_17:00  242.53  n/a     .000
01569>      {MxStoUsed=.9598E-02  m3, TotOvfVol=.1177E+01  m3, N-Ovf=  101, TotDurOvf=  126.hrs}
01570> R0075:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01571>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .520 1975.0708_17:00  256.91 .480     .000
01572>       [XIMP=.57:TIMP=.67]
01573>       [LOSS= 2 :CN= 71.0]
01574>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01575>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01576>       [IaRECimp=   1.50: IaRECper=   6.00]
01577>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01578> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
01579> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01580> # Total Volume provided by LID  - 131 m³
01581> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01582> R0075:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01583>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .520 1975.0708_17:00  256.91  n/a     .000
01584>                   out <=    5.0 01:W4-LID         1.89     .001 1975.0109_ 8:35  256.91  n/a     .000
01585>              overflow <=    5.0 03:W4-LID-Out     6.29     .506 1975.0708_17:00  256.91  n/a     .000
01586>      {MxStoUsed=.1308E-01  m3, TotOvfVol=.1615E+01  m3, N-Ovf=  106, TotDurOvf=  126.hrs}
01587> R0075:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01588>     ADD HYD               5.0 02:W1             8.92     .621 1975.0708_17:00  284.52  n/a     .000
01589>                       +     5.0 02:W2            10.75     .738 1975.0708_17:00  280.95  n/a     .000
01590>                       +     5.0 02:W3             6.30     .380 1975.0708_17:00  242.53  n/a     .000
01591>                       +     5.0 02:W4             8.18     .520 1975.0708_17:00  256.91  n/a     .000
01592>                     SUM=    5.0 01:BCD-PH3       34.15    2.258 1975.0708_17:00  269.04  n/a     .000
01593> R0075:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01594>     ADD HYD               5.0 02:W1-LID-Out     6.56     .609 1975.0708_17:00  284.52  n/a     .000
01595>                       +     5.0 02:W2-LID-Out     8.07     .724 1975.0708_17:00  280.95  n/a     .000
01596>                       +     5.0 02:W3-LID-Out     4.85     .369 1975.0708_17:00  242.53  n/a     .000
01597>                       +     5.0 02:W4-LID-Out     6.29     .506 1975.0708_17:00  256.91  n/a     .000
01598>                     SUM=    5.0 01:BCD-PH3-LI    25.77    2.208 1975.0708_17:00  268.76  n/a     .000
01599> #*******************************************************************************************************
01600> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
01601> #*******************************************************************************************************
01602> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
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01603> #*************************************************************************************************************
01604> R0075:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01605>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .819 1975.0708_17:00  348.61 .651     .000
01606>       [XIMP=.66:TIMP=.71]
01607>       [LOSS= 2 :CN=100.0]
01608>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01609>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01610>       [IaRECimp=   1.50: IaRECper=   6.00]
01611>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01612> R0075:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01613>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .982 1975.0708_17:00  346.77 .648     .000
01614>       [XIMP=.65:TIMP=.70]
01615>       [LOSS= 2 :CN=100.0]
01616>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01617>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01618>       [IaRECimp=   1.50: IaRECper=   6.00]
01619>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01620> R0075:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01621>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .587 1975.0708_17:00  334.63 .625     .000
01622>       [XIMP=.53:TIMP=.63]
01623>       [LOSS= 2 :CN=100.0]
01624>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01625>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01626>       [IaRECimp=   1.50: IaRECper=   6.00]
01627>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01628> R0075:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01629>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .763 1975.0708_17:00  342.11 .639     .000
01630>       [XIMP=.57:TIMP=.67]
01631>       [LOSS= 2 :CN=100.0]
01632>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01633>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01634>       [IaRECimp=   1.50: IaRECper=   6.00]
01635>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01636> R0075:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01637>     ADD HYD               5.0 02:INF-W1         8.92     .819 1975.0708_17:00  348.61  n/a     .000
01638>                     +     5.0 02:INF-W2        10.75     .982 1975.0708_17:00  346.77  n/a     .000
01639>                     +     5.0 02:INF-W3         6.30     .587 1975.0708_17:00  334.63  n/a     .000
01640>                     +     5.0 02:INF-W4         8.18     .763 1975.0708_17:00  342.11  n/a     .000
01641>                   SUM=    5.0 01:INF-BCD-PH    34.15    3.151 1975.0708_17:00  343.90  n/a     .000
01642> ###############################################################################
01643> # CONTINUOUS RAINFALL DATA
01644> ###############################################################################
01645>   ** END OF RUN :   75
01646>
01647> *********************************************************************************************
01648>
01649>
01650>
01651>
01652>
01653>  RUN#:COMMAND#
01654> R0076:C00001-----------------------------------------------------------------------------------------
01655>      START
01656>       [TZERO =    .00 hrs on 19760101]
01657>       [METOUT=   2    (1=imperial, 2=metric output)]
01658>       [NSTORM=   0 ]
01659>       [NRUN  = 0076 ]
01660> #*************************************************************************************************************
01661> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01662> #*************************************************************************************************************
01663> #  Project Name: Barrhaven Conservancy Development
01664> #  Project Number: 1474
01665> #  Date        : 2021/Oct/18
01666> #  Modeller    : J.Burnett, P.Eng.
01667> #  Updated     : 2022/Dec/13 [LP]
01668> #  Company     : J.F. Sabourin and Associates
01669> #  License #   : 2582634
01670> #*************************************************************************************************************
01671> # Ottawa International Airport (1967 - 2003)
01672> R0076:C00002-----------------------------------------------------------------------------------------
01673>   *  READ AES DATA
01674>       [Filename  = YOW_1967_2007.123                                        ]
01675>       [Start_date= 1976.0101: End_date= 1976.1230]
01676>       {DT= 60.min: Length= 8064.hrs: WetHrs=  390: DryHrs= 7674: PTOT= 493.20}
01677>       Maximum average rainfall intensities over
01678>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01679>        14.00     8.90     6.43     4.65     2.35     1.39      .97      .99      .80    mm/hr
01680>        14.00    17.80    19.30    27.90    28.20    33.30    35.10    47.60    57.50    mm
01681>       19760828 19760828 19760828 19760828 19760828 19760920 19760520 19760520 19760921  date
01682>       Number of rainfall events per following interevent time
01683>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01684>          164      133      117       89       72       62       46       40       28
01685>       Number of events with at least the following durations
01686>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01687>          163       80       47       15        2        0        0        0        0
01688> R0076:C00003-----------------------------------------------------------------------------------------
01689>      COMPUTE API
01690>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01691>       {APImax= 59.66: APIavg= 15.35: APImin=   .02}
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01692> #*************************************************************************************************************
01693> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
01694> #*************************************************************************************************************
01695> R0076:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01696>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .228 1976.0828_19:00  239.90 .486     .000
01697>       [XIMP=.66:TIMP=.71]
01698>       [LOSS= 2 :CN= 71.0]
01699>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01700>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01701>       [IaRECimp=   1.50: IaRECper=   6.00]
01702>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01703> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
01704> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01705> # Total Volume provided by LID  - 179 m³
01706> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01707> R0076:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01708>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .228 1976.0828_19:00  239.90  n/a     .000
01709>                   out <=    5.0 01:W1-LID         2.77     .001 1976.0331_15:15  239.90  n/a     .000
01710>              overflow <=    5.0 03:W1-LID-Out     6.15     .226 1976.0828_19:00  239.90  n/a     .000
01711>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.1476E+01  m3, N-Ovf=  119, TotDurOvf=  137.hrs}
01712> R0076:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01713>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .270 1976.0828_19:00  236.79 .480     .000
01714>       [XIMP=.65:TIMP=.70]
01715>       [LOSS= 2 :CN= 71.0]
01716>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01717>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01718>       [IaRECimp=   1.50: IaRECper=   6.00]
01719>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01720> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
01721> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01722> # Total Volume provided by LID  - 200 m³
01723> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01724> R0076:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01725>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .270 1976.0828_19:00  236.79  n/a     .000
01726>                   out <=    5.0 01:W2-LID         3.15     .001 1976.0331_15:10  236.79  n/a     .000
01727>              overflow <=    5.0 03:W2-LID-Out     7.60     .267 1976.0828_19:00  236.79  n/a     .000
01728>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.1799E+01  m3, N-Ovf=  122, TotDurOvf=  144.hrs}
01729> R0076:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01730>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .132 1976.0828_19:00  202.95 .411     .000
01731>       [XIMP=.53:TIMP=.63]
01732>       [LOSS= 2 :CN= 71.0]
01733>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01734>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01735>       [IaRECimp=   1.50: IaRECper=   6.00]
01736>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01737> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
01738> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01739> # Total Volume provided by LID  - 96 m³
01740> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01741> R0076:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01742>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .132 1976.0828_19:00  202.95  n/a     .000
01743>                   out <=    5.0 01:W3-LID         1.73     .001 1976.0331_15:10  202.95  n/a     .000
01744>              overflow <=    5.0 03:W3-LID-Out     4.57     .130 1976.0828_19:00  202.95  n/a     .000
01745>      {MxStoUsed=.9600E-02  m3, TotOvfVol=.9275E+00  m3, N-Ovf=  117, TotDurOvf=  151.hrs}
01746> R0076:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01747>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .183 1976.0828_19:00  215.45 .437     .000
01748>       [XIMP=.57:TIMP=.67]
01749>       [LOSS= 2 :CN= 71.0]
01750>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01751>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01752>       [IaRECimp=   1.50: IaRECper=   6.00]
01753>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01754> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
01755> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01756> # Total Volume provided by LID  - 131 m³
01757> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01758> R0076:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01759>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .183 1976.0828_19:00  215.45  n/a     .000
01760>                   out <=    5.0 01:W4-LID         2.25     .001 1976.0331_15:10  215.45  n/a     .000
01761>              overflow <=    5.0 03:W4-LID-Out     5.93     .181 1976.0828_19:00  215.45  n/a     .000
01762>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1277E+01  m3, N-Ovf=  121, TotDurOvf=  150.hrs}
01763> R0076:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01764>     ADD HYD               5.0 02:W1             8.92     .228 1976.0828_19:00  239.90  n/a     .000
01765>                     +     5.0 02:W2            10.75     .270 1976.0828_19:00  236.79  n/a     .000
01766>                     +     5.0 02:W3             6.30     .132 1976.0828_19:00  202.95  n/a     .000
01767>                     +     5.0 02:W4             8.18     .183 1976.0828_19:00  215.45  n/a     .000
01768>                   SUM=    5.0 01:BCD-PH3       34.15     .813 1976.0828_19:00  226.25  n/a     .000
01769> R0076:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01770>     ADD HYD               5.0 02:W1-LID-Out     6.15     .226 1976.0828_19:00  239.90  n/a     .000
01771>                     +     5.0 02:W2-LID-Out     7.60     .267 1976.0828_19:00  236.79  n/a     .000
01772>                     +     5.0 02:W3-LID-Out     4.57     .130 1976.0828_19:00  202.95  n/a     .000
01773>                     +     5.0 02:W4-LID-Out     5.93     .181 1976.0828_19:00  215.45  n/a     .000
01774>                   SUM=    5.0 01:BCD-PH3-LI    24.25     .805 1976.0828_19:00  225.99  n/a     .000
01775> #*************************************************************************************************************
01776> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
01777> #*************************************************************************************************************
01778> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
01779> #*************************************************************************************************************
01780> R0076:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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01781>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .280 1976.0828_19:00  291.65 .591     .000
01782>       [XIMP=.66:TIMP=.71]
01783>       [LOSS= 2 :CN=100.0]
01784>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01785>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01786>       [IaRECimp=   1.50: IaRECper=   6.00]
01787>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01788> R0076:C00015-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01789>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .326 1976.0828_19:00  289.91 .588     .000
01790>       [XIMP=.65:TIMP=.70]
01791>       [LOSS= 2 :CN=100.0]
01792>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01793>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01794>       [IaRECimp=   1.50: IaRECper=   6.00]
01795>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01796> R0076:C00016-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01797>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .187 1976.0828_19:00  277.98 .564     .000
01798>       [XIMP=.53:TIMP=.63]
01799>       [LOSS= 2 :CN=100.0]
01800>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01801>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01802>       [IaRECimp=   1.50: IaRECper=   6.00]
01803>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01804> R0076:C00017-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01805>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .249 1976.0828_19:00  285.07 .578     .000
01806>       [XIMP=.57:TIMP=.67]
01807>       [LOSS= 2 :CN=100.0]
01808>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01809>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01810>       [IaRECimp=   1.50: IaRECper=   6.00]
01811>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01812> R0076:C00018-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01813>     ADD HYD               5.0 02:INF-W1         8.92     .280 1976.0828_19:00  291.65  n/a     .000
01814>                     +     5.0 02:INF-W2        10.75     .326 1976.0828_19:00  289.91  n/a     .000
01815>                     +     5.0 02:INF-W3         6.30     .187 1976.0828_19:00  277.98  n/a     .000
01816>                     +     5.0 02:INF-W4         8.18     .249 1976.0828_19:00  285.07  n/a     .000
01817>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.042 1976.0828_19:00  287.00  n/a     .000
01818> ###############################################################################
01819> # CONTINUOUS RAINFALL DATA
01820> ###############################################################################
01821>   ** END OF RUN :   76
01822>
01823> ************************************************************************************************
01824>
01825>
01826>
01827>
01828>
01829>  RUN#:COMMAND#
01830> R0077:C00001-----------------------------------------------------------------------------------------
01831>      START
01832>       [TZERO =    .00 hrs on 19770101]
01833>       [METOUT=   2    (1=imperial, 2=metric output)]
01834>       [NSTORM=   0 ]
01835>       [NRUN  = 0077 ]
01836> #*****************************************************************************************************
01837> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01838> #*****************************************************************************************************
01839> #  Project Name: Barrhaven Conservancy Development
01840> #  Project Number: 1474
01841> #  Date        : 2021/Oct/18
01842> #  Modeller    : J.Burnett, P.Eng.
01843> #  Updated     : 2022/Dec/13 [LP]
01844> #  Company     : J.F. Sabourin and Associates
01845> #  License #   : 2582634
01846> #*****************************************************************************************************
01847> # Ottawa International Airport (1967 - 2003)
01848> R0077:C00002-----------------------------------------------------------------------------------------
01849>   *  READ AES DATA
01850>       [Filename  = YOW_1967_2007.123                                          ]
01851>       [Start_date= 1977.0101: End_date= 1977.1231]
01852>       {DT= 60.min: Length= 8016.hrs: WetHrs=  512: DryHrs= 7504: PTOT= 677.80}
01853>       Maximum average rainfall intensities over
01854>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01855>        21.30    15.20    10.40     6.53     3.30     1.66     1.40     1.06      .73    mm/hr
01856>        21.30    30.40    31.20    39.20    39.60    39.80    50.40    51.00    52.40    mm
01857>       19770717 19770717 19770717 19770901 19770902 19770314 19770314 19770314 19770718  date
01858>       Number of rainfall events per following interevent time
01859>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01860>          172      142      126       99       78       63       53       42       30
01861>       Number of events with at least the following durations
01862>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01863>          171       88       60       22        5        1        0        0        0
01864> R0077:C00003-----------------------------------------------------------------------------------------
01865>      COMPUTE API
01866>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01867>       {APImax= 74.80: APIavg= 20.62: APImin=  1.63}
01868> #*****************************************************************************************************
01869> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
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01870> #*************************************************************************************************************
01871> R0077:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01872>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .368 1977.0717_16:00  365.11 .539     .000
01873>       [XIMP=.66:TIMP=.71]
01874>       [LOSS= 2 :CN= 71.0]
01875>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01876>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01877>       [IaRECimp=   1.50: IaRECper=   6.00]
01878>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01879> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
01880> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01881> # Total Volume provided by LID  - 179 m³
01882> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01883> R0077:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01884>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .368 1977.0717_16:00  365.11  n/a     .000
01885>                   out <=    5.0 01:W1-LID         2.42     .001 1977.0304_20:50  365.12  n/a     .000
01886>              overflow <=    5.0 03:W1-LID-Out     6.50     .364 1977.0717_16:00  365.11  n/a     .000
01887>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2374E+01  m3, N-Ovf=  124, TotDurOvf=  211.hrs}
01888> R0077:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01889>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .437 1977.0717_16:00  360.57 .532     .000
01890>       [XIMP=.65:TIMP=.70]
01891>       [LOSS= 2 :CN= 71.0]
01892>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01893>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01894>       [IaRECimp=   1.50: IaRECper=   6.00]
01895>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01896> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
01897> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01898> # Total Volume provided by LID  - 200 m³
01899> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01900> R0077:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01901>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .437 1977.0717_16:00  360.57  n/a     .000
01902>                   out <=    5.0 01:W2-LID         2.74     .001 1977.0304_20:50  360.56  n/a     .000
01903>              overflow <=    5.0 03:W2-LID-Out     8.01     .432 1977.0717_16:00  360.57  n/a     .000
01904>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.2888E+01  m3, N-Ovf=  130, TotDurOvf=  217.hrs}
01905> R0077:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01906>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .229 1977.0901_23:00  311.46 .460     .000
01907>       [XIMP=.53:TIMP=.63]
01908>       [LOSS= 2 :CN= 71.0]
01909>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01910>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01911>       [IaRECimp=   1.50: IaRECper=   6.00]
01912>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01913> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
01914> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01915> # Total Volume provided by LID  - 96 m³
01916> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01917> R0077:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01918>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .229 1977.0901_23:00  311.46  n/a     .000
01919>                   out <=    5.0 01:W3-LID         1.48     .001 1977.0304_20:45  311.47  n/a     .000
01920>              overflow <=    5.0 03:W3-LID-Out     4.82     .224 1977.0901_23:00  311.46  n/a     .000
01921>      {MxStoUsed=.9598E-02  m3, TotOvfVol=.1501E+01  m3, N-Ovf=  127, TotDurOvf=  222.hrs}
01922> R0077:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01923>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .309 1977.0901_23:00  329.71 .486     .000
01924>       [XIMP=.57:TIMP=.67]
01925>       [LOSS= 2 :CN= 71.0]
01926>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01927>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01928>       [IaRECimp=   1.50: IaRECper=   6.00]
01929>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01930> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
01931> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01932> # Total Volume provided by LID  - 131 m³
01933> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01934> R0077:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01935>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .309 1977.0901_23:00  329.71  n/a     .000
01936>                   out <=    5.0 01:W4-LID         1.94     .001 1977.0304_20:45  329.72  n/a     .000
01937>              overflow <=    5.0 03:W4-LID-Out     6.24     .302 1977.0901_23:00  329.71  n/a     .000
01938>      {MxStoUsed=.1309E-01  m3, TotOvfVol=.2058E+01  m3, N-Ovf=  133, TotDurOvf=  222.hrs}
01939> R0077:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01940>     ADD HYD               5.0 02:W1             8.92     .368 1977.0717_16:00  365.11  n/a     .000
01941>                       +     5.0 02:W2            10.75     .437 1977.0717_16:00  360.57  n/a     .000
01942>                       +     5.0 02:W3             6.30     .229 1977.0901_23:00  311.46  n/a     .000
01943>                       +     5.0 02:W4             8.18     .309 1977.0901_23:00  329.71  n/a     .000
01944>                     SUM=    5.0 01:BCD-PH3       34.15    1.330 1977.0717_16:00  345.30  n/a     .000
01945> R0077:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01946>     ADD HYD               5.0 02:W1-LID-Out     6.50     .364 1977.0717_16:00  365.11  n/a     .000
01947>                       +     5.0 02:W2-LID-Out     8.01     .432 1977.0717_16:00  360.57  n/a     .000
01948>                       +     5.0 02:W3-LID-Out     4.82     .224 1977.0901_23:00  311.46  n/a     .000
01949>                       +     5.0 02:W4-LID-Out     6.24     .302 1977.0901_23:00  329.71  n/a     .000
01950>                     SUM=    5.0 01:BCD-PH3-LI    25.57    1.312 1977.0717_16:00  344.94  n/a     .000
01951> #*************************************************************************************************************
01952> #                    Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
01953> #*************************************************************************************************************
01954> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
01955> #*************************************************************************************************************
01956> R0077:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01957>     CONTINUOUS STANDHYD   5.0 01:INF-W1          8.92     .484 1977.0717_16:00  446.64 .659     .000
01958>       [XIMP=.66:TIMP=.71]
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01959>       [LOSS= 2 :CN=100.0]
01960>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01961>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
01962>       [IaRECimp=   1.50: IaRECper=   6.00]
01963>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01964> R0077:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01965>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .569 1977.0717_16:00  444.31 .656     .000
01966>       [XIMP=.65:TIMP=.70]
01967>       [LOSS= 2 :CN=100.0]
01968>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01969>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
01970>       [IaRECimp=   1.50: IaRECper=   6.00]
01971>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01972> R0077:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01973>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .337 1977.0717_16:00  428.34 .632     .000
01974>       [XIMP=.53:TIMP=.63]
01975>       [LOSS= 2 :CN=100.0]
01976>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01977>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
01978>       [IaRECimp=   1.50: IaRECper=   6.00]
01979>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01980> R0077:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01981>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .440 1977.0717_16:00  437.81 .646     .000
01982>       [XIMP=.57:TIMP=.67]
01983>       [LOSS= 2 :CN=100.0]
01984>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01985>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
01986>       [IaRECimp=   1.50: IaRECper=   6.00]
01987>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
01988> R0077:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01989>     ADD HYD               5.0 02:INF-W1         8.92     .484 1977.0717_16:00  446.64  n/a     .000
01990>                     +     5.0 02:INF-W2        10.75     .569 1977.0717_16:00  444.31  n/a     .000
01991>                     +     5.0 02:INF-W3         6.30     .337 1977.0717_16:00  428.34  n/a     .000
01992>                     +     5.0 02:INF-W4         8.18     .440 1977.0717_16:00  437.81  n/a     .000
01993>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.830 1977.0717_16:00  440.41  n/a     .000
01994> ##############################################################################
01995> # CONTINUOUS RAINFALL DATA
01996> ##############################################################################
01997>   ** END OF RUN :   77
01998>
01999> ********************************************************************************************************
02000>
02001>
02002>
02003>
02004>
02005>  RUN#:COMMAND#
02006> R0078:C00001------------------------------------------------------------------------------------------
02007>      START
02008>       [TZERO =    .00 hrs on 19780101]
02009>       [METOUT=   2    (1=imperial, 2=metric output)]
02010>       [NSTORM=   0 ]
02011>       [NRUN  = 0078 ]
02012> #*************************************************************************************************************
02013> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02014> #*************************************************************************************************************
02015> #  Project Name: Barrhaven Conservancy Development
02016> #  Project Number: 1474
02017> #  Date        : 2021/Oct/18
02018> #  Modeller    : J.Burnett, P.Eng.
02019> #  Updated     : 2022/Dec/13 [LP]
02020> #  Company     : J.F. Sabourin and Associates
02021> #  License #   : 2582634
02022> #*************************************************************************************************************
02023> # Ottawa International Airport (1967 - 2003)
02024> R0078:C00002------------------------------------------------------------------------------------------
02025>   *  READ AES DATA
02026>       [Filename  = YOW_1967_2007.123                                          ]
02027>       [Start_date= 1978.0101: End_date= 1978.1231]
02028>       {DT= 60.min: Length= 8040.hrs: WetHrs=  409: DryHrs= 7631: PTOT= 641.40}
02029>       Maximum average rainfall intensities over
02030>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02031>        36.00    18.15    12.10     6.05     3.04     1.64     1.13      .87      .58    mm/hr
02032>        36.00    36.30    36.30    36.30    36.50    39.40    40.60    41.60    41.60    mm
02033>       19780618 19780618 19780618 19780618 19780619 19780411 19780412 19780620 19780621  date
02034>       Number of rainfall events per following interevent time
02035>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02036>          154      128      118       97       71       58       51       46       33
02037>       Number of events with at least the following durations
02038>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02039>          154       75       44       18        5        0        0        0        0
02040> R0078:C00003------------------------------------------------------------------------------------------
02041>      COMPUTE API
02042>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02043>       {APImax= 65.36: APIavg= 19.25: APImin=   .25}
02044> #*************************************************************************************************************
02045> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
02046> #*************************************************************************************************************
02047> R0078:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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02048>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .670 1978.0618_17:00  347.07 .541     .000
02049>       [XIMP=.66:TIMP=.71]
02050>       [LOSS= 2 :CN= 71.0]
02051>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02052>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02053>       [IaRECimp=   1.50: IaRECper=   6.00]
02054>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02055> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
02056> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02057> # Total Volume provided by LID  - 179 m³
02058> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02059> R0078:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02060>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .670 1978.0618_17:00  347.07  n/a     .000
02061>                 out <=    5.0 01:W1-LID         2.39     .001 1978.0108_ 3:30  347.08  n/a     .000
02062>           overflow <=    5.0 03:W1-LID-Out     6.53     .656 1978.0618_17:00  347.07  n/a     .000
02063>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2267E+01  m3, N-Ovf=  106, TotDurOvf=  160.hrs}
02064> R0078:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02065>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .797 1978.0618_17:00  342.55 .534     .000
02066>       [XIMP=.65:TIMP=.70]
02067>       [LOSS= 2 :CN= 71.0]
02068>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02069>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02070>       [IaRECimp=   1.50: IaRECper=   6.00]
02071>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02072> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
02073> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02074> # Total Volume provided by LID  - 200 m³
02075> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02076> R0078:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02077>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .797 1978.0618_17:00  342.55  n/a     .000
02078>                 out <=    5.0 01:W2-LID         2.73     .001 1978.0108_ 3:25  342.54  n/a     .000
02079>           overflow <=    5.0 03:W2-LID-Out     8.02     .780 1978.0618_17:00  342.55  n/a     .000
02080>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.2749E+01  m3, N-Ovf=  106, TotDurOvf=  164.hrs}
02081> R0078:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02082>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .423 1978.0618_17:00  292.83 .457     .000
02083>       [XIMP=.53:TIMP=.63]
02084>       [LOSS= 2 :CN= 71.0]
02085>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02086>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02087>       [IaRECimp=   1.50: IaRECper=   6.00]
02088>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02089> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
02090> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02091> # Total Volume provided by LID  - 96 m³
02092> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02093> R0078:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02094>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .423 1978.0618_17:00  292.83  n/a     .000
02095>                 out <=    5.0 01:W3-LID         1.51     .001 1978.0108_ 3:25  292.83  n/a     .000
02096>           overflow <=    5.0 03:W3-LID-Out     4.79     .408 1978.0618_17:00  292.83  n/a     .000
02097>      {MxStoUsed=.9597E-02  m3, TotOvfVol=.1404E+01  m3, N-Ovf=  113, TotDurOvf=  167.hrs}
02098> R0078:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02099>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .573 1978.0618_17:00  311.01 .485     .000
02100>       [XIMP=.57:TIMP=.67]
02101>       [LOSS= 2 :CN= 71.0]
02102>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02103>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02104>       [IaRECimp=   1.50: IaRECper=   6.00]
02105>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02106> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
02107> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02108> # Total Volume provided by LID  - 131 m³
02109> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02110> R0078:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02111>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .573 1978.0618_17:00  311.01  n/a     .000
02112>                 out <=    5.0 01:W4-LID         1.96     .001 1978.0108_ 3:25  311.01  n/a     .000
02113>           overflow <=    5.0 03:W4-LID-Out     6.22     .555 1978.0618_17:00  311.01  n/a     .000
02114>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1935E+01  m3, N-Ovf=  103, TotDurOvf=  167.hrs}
02115> R0078:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02116>     ADD HYD               5.0 02:W1             8.92     .670 1978.0618_17:00  347.07  n/a     .000
02117>                     +     5.0 02:W2            10.75     .797 1978.0618_17:00  342.55  n/a     .000
02118>                     +     5.0 02:W3             6.30     .423 1978.0618_17:00  292.83  n/a     .000
02119>                     +     5.0 02:W4             8.18     .573 1978.0618_17:00  311.01  n/a     .000
02120>                   SUM=    5.0 01:BCD-PH3       34.15    2.462 1978.0618_17:00  327.00  n/a     .000
02121> R0078:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02122>     ADD HYD               5.0 02:W1-LID-Out     6.53     .656 1978.0618_17:00  347.07  n/a     .000
02123>                     +     5.0 02:W2-LID-Out     8.02     .780 1978.0618_17:00  342.55  n/a     .000
02124>                     +     5.0 02:W3-LID-Out     4.79     .408 1978.0618_17:00  292.83  n/a     .000
02125>                     +     5.0 02:W4-LID-Out     6.22     .555 1978.0618_17:00  311.01  n/a     .000
02126>                   SUM=    5.0 01:BCD-PH3-LI    25.57    2.400 1978.0618_17:00  326.71  n/a     .000
02127> #*************************************************************************************************************
02128> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
02129> #*************************************************************************************************************
02130> #                   Set infiltration to 0 (CN = 99.99) for water balance analysis
02131> #*************************************************************************************************************
02132> R0078:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02133>     CONTINUOUS STANDHYD   5.0 01:INF-W1          8.92     .856 1978.0618_17:00  429.43 .670     .000
02134>       [XIMP=.66:TIMP=.71]
02135>       [LOSS= 2 :CN=100.0]
02136>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
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02137>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02138>       [IaRECimp=   1.50: IaRECper=   6.00]
02139>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02140> R0078:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02141>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75    1.028 1978.0618_17:00  427.15 .666     .000
02142>       [XIMP=.65:TIMP=.70]
02143>       [LOSS= 2 :CN=100.0]
02144>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02145>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02146>       [IaRECimp=   1.50: IaRECper=   6.00]
02147>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02148> R0078:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02149>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .611 1978.0618_17:00  410.75 .640     .000
02150>       [XIMP=.53:TIMP=.63]
02151>       [LOSS= 2 :CN=100.0]
02152>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02153>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02154>       [IaRECimp=   1.50: IaRECper=   6.00]
02155>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02156> R0078:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02157>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .794 1978.0618_17:00  420.01 .655     .000
02158>       [XIMP=.57:TIMP=.67]
02159>       [LOSS= 2 :CN=100.0]
02160>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02161>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02162>       [IaRECimp=   1.50: IaRECper=   6.00]
02163>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02164> R0078:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02165>     ADD HYD               5.0 02:INF-W1         8.92     .856 1978.0618_17:00  429.43  n/a     .000
02166>                     +     5.0 02:INF-W2        10.75    1.028 1978.0618_17:00  427.15  n/a     .000
02167>                     +     5.0 02:INF-W3         6.30     .611 1978.0618_17:00  410.75  n/a     .000
02168>                     +     5.0 02:INF-W4         8.18     .794 1978.0618_17:00  420.01  n/a     .000
02169>                   SUM=    5.0 01:INF-BCD-PH    34.15    3.289 1978.0618_17:00  423.01  n/a     .000
02170> ################################################################################
02171> # CONTINUOUS RAINFALL DATA
02172> ################################################################################
02173>   ** END OF RUN :   78
02174>
02175> ********************************************************************************************************
02176>
02177>
02178>
02179>
02180>
02181>  RUN#:COMMAND#
02182> R0079:C00001-----------------------------------------------------------------------------------------
02183>      START
02184>       [TZERO =    .00 hrs on 19790101]
02185>       [METOUT=   2    (1=imperial, 2=metric output)]
02186>       [NSTORM=   0 ]
02187>       [NRUN  = 0079 ]
02188> #*******************************************************************************************************************
02189> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02190> #*******************************************************************************************************************
02191> #  Project Name: Barrhaven Conservancy Development
02192> #  Project Number: 1474
02193> #  Date        : 2021/Oct/18
02194> #  Modeller    : J.Burnett, P.Eng.
02195> #  Updated     : 2022/Dec/13 [LP]
02196> #  Company     : J.F. Sabourin and Associates
02197> #  License #   : 2582634
02198> #*******************************************************************************************************************
02199> # Ottawa International Airport (1967 - 2003)
02200> R0079:C00002-----------------------------------------------------------------------------------------
02201>   *  READ AES DATA
02202>       [Filename  = YOW_1967_2007.123                                          ]
02203>       [Start_date= 1979.0101: End_date= 1979.1231]
02204>       {DT= 60.min: Length= 8760.hrs: WetHrs=  546: DryHrs= 8214: PTOT= 866.50}
02205>       Maximum average rainfall intensities over
02206>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02207>        34.90    22.00    14.67     7.33     5.14     2.63     1.75     1.31      .88    mm/hr
02208>        34.90    44.00    44.00    44.00    61.70    63.00    63.00    63.00    63.00    mm
02209>       19790616 19790616 19790616 19790616 19790914 19790915 19790915 19790915 19790917  date
02210>       Number of rainfall events per following interevent time
02211>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02212>          188      147      129      103       86       60       53       43       36
02213>       Number of events with at least the following durations
02214>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02215>          187       97       65       25        6        1        0        0        0
02216> R0079:C00003-----------------------------------------------------------------------------------------
02217>      COMPUTE API
02218>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02219>       {APImax= 78.42: APIavg= 23.13: APImin=   .13}
02220> #*******************************************************************************************************************
02221> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
02222> #*******************************************************************************************************************
02223> R0079:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02224>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .682 1979.0616_14:00  506.86 .585     .000
02225>       [XIMP=.66:TIMP=.71]
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02226>       [LOSS= 2 :CN= 71.0]
02227>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02228>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02229>       [IaRECimp=   1.50: IaRECper=   6.00]
02230>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02231> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
02232> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02233> # Total Volume provided by LID  - 179 m³
02234> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02235> R0079:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02236>     ROUTE RESERVOIR ->    5.0 02:W1            8.92     .682 1979.0616_14:00  506.86  n/a     .000
02237>                   out <=    5.0 01:W1-LID         1.79     .001 1979.0101_19:55  506.87  n/a     .000
02238>             overflow <=    5.0 03:W1-LID-Out     7.13     .665 1979.0616_14:00  506.86  n/a     .000
02239>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.3613E+01  m3, N-Ovf=  122, TotDurOvf=  209.hrs}
02240> R0079:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02241>     CONTINUOUS STANDHYD   5.0 01:W2           10.75     .813 1979.0616_14:00  501.22 .578     .000
02242>       [XIMP=.65:TIMP=.70]
02243>       [LOSS= 2 :CN= 71.0]
02244>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02245>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02246>       [IaRECimp=   1.50: IaRECper=   6.00]
02247>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02248> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
02249> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02250> # Total Volume provided by LID  - 200 m³
02251> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02252> R0079:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02253>     ROUTE RESERVOIR ->    5.0 02:W2           10.75     .813 1979.0616_14:00  501.22  n/a     .000
02254>                   out <=    5.0 01:W2-LID         2.03     .001 1979.0101_19:40  501.21  n/a     .000
02255>             overflow <=    5.0 03:W2-LID-Out     8.72     .793 1979.0616_14:00  501.22  n/a     .000
02256>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.4370E+01  m3, N-Ovf=  128, TotDurOvf=  213.hrs}
02257> R0079:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02258>     CONTINUOUS STANDHYD   5.0 01:W3            6.30     .460 1979.0616_14:00  442.52 .511     .000
02259>       [XIMP=.53:TIMP=.63]
02260>       [LOSS= 2 :CN= 71.0]
02261>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02262>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02263>       [IaRECimp=   1.50: IaRECper=   6.00]
02264>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02265> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
02266> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02267> # Total Volume provided by LID  - 96 m³
02268> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02269> R0079:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02270>     ROUTE RESERVOIR ->    5.0 02:W3            6.30     .460 1979.0616_14:00  442.52  n/a     .000
02271>                   out <=    5.0 01:W3-LID         1.08     .001 1979.0101_19:30  442.52  n/a     .000
02272>             overflow <=    5.0 03:W3-LID-Out     5.22     .438 1979.0616_14:00  442.52  n/a     .000
02273>      {MxStoUsed=.9598E-02  m3, TotOvfVol=.2310E+01  m3, N-Ovf=  126, TotDurOvf=  216.hrs}
02274> R0079:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02275>     CONTINUOUS STANDHYD   5.0 01:W4            8.18     .594 1979.0616_14:00  465.26 .537     .000
02276>       [XIMP=.57:TIMP=.67]
02277>       [LOSS= 2 :CN= 71.0]
02278>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02279>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02280>       [IaRECimp=   1.50: IaRECper=   6.00]
02281>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02282> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
02283> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02284> # Total Volume provided by LID  - 131 m³
02285> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02286> R0079:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02287>     ROUTE RESERVOIR ->    5.0 02:W4            8.18     .594 1979.0616_14:00  465.26  n/a     .000
02288>                   out <=    5.0 01:W4-LID         1.42     .001 1979.0101_19:35  465.27  n/a     .000
02289>             overflow <=    5.0 03:W4-LID-Out     6.76     .574 1979.0616_14:00  465.26  n/a     .000
02290>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.3145E+01  m3, N-Ovf=  124, TotDurOvf=  218.hrs}
02291> R0079:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02292>     ADD HYD               5.0 02:W1            8.92     .682 1979.0616_14:00  506.86  n/a     .000
02293>                       +     5.0 02:W2           10.75     .813 1979.0616_14:00  501.22  n/a     .000
02294>                       +     5.0 02:W3            6.30     .460 1979.0616_14:00  442.52  n/a     .000
02295>                       +     5.0 02:W4            8.18     .594 1979.0616_14:00  465.26  n/a     .000
02296>                     SUM=     5.0 01:BCD-PH3      34.15    2.549 1979.0616_14:00  483.25  n/a     .000
02297> R0079:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02298>     ADD HYD               5.0 02:W1-LID-Out     7.13     .665 1979.0616_14:00  506.86  n/a     .000
02299>                       +     5.0 02:W2-LID-Out     8.72     .793 1979.0616_14:00  501.22  n/a     .000
02300>                       +     5.0 02:W3-LID-Out     5.22     .438 1979.0616_14:00  442.52  n/a     .000
02301>                       +     5.0 02:W4-LID-Out     6.76     .574 1979.0616_14:00  465.26  n/a     .000
02302>                     SUM=     5.0 01:BCD-PH3-LI    27.83    2.470 1979.0616_14:00  482.92  n/a     .000
02303> #*****************************************************************************************************
02304> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
02305> #*****************************************************************************************************
02306> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02307> #*****************************************************************************************************
02308> R0079:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02309>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .850 1979.0616_14:00  620.26 .716     .000
02310>       [XIMP=.66:TIMP=.71]
02311>       [LOSS= 2 :CN=100.0]
02312>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02313>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02314>       [IaRECimp=   1.50: IaRECper=   6.00]
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02315>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02316> R0079:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02317>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75    1.022 1979.0616_14:00  617.83 .713     .000
02318>       [XIMP=.65:TIMP=.70]
02319>       [LOSS= 2 :CN=100.0]
02320>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02321>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02322>       [IaRECimp=   1.50: IaRECper=   6.00]
02323>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02324> R0079:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02325>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .607 1979.0616_14:00  601.90 .695     .000
02326>       [XIMP=.53:TIMP=.63]
02327>       [LOSS= 2 :CN=100.0]
02328>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02329>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02330>       [IaRECimp=   1.50: IaRECper=   6.00]
02331>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02332> R0079:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02333>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .786 1979.0616_14:00  611.76 .706     .000
02334>       [XIMP=.57:TIMP=.67]
02335>       [LOSS= 2 :CN=100.0]
02336>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02337>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02338>       [IaRECimp=   1.50: IaRECper=   6.00]
02339>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02340> R0079:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02341>     ADD HYD               5.0 02:INF-W1         8.92     .850 1979.0616_14:00  620.26  n/a     .000
02342>                       +     5.0 02:INF-W2        10.75    1.022 1979.0616_14:00  617.83  n/a     .000
02343>                       +     5.0 02:INF-W3         6.30     .607 1979.0616_14:00  601.90  n/a     .000
02344>                       +     5.0 02:INF-W4         8.18     .786 1979.0616_14:00  611.76  n/a     .000
02345>                   SUM=      5.0 01:INF-BCD-PH    34.15    3.266 1979.0616_14:00  614.07  n/a     .000
02346> ###############################################################################
02347> # CONTINUOUS RAINFALL DATA
02348> ###############################################################################
02349>   ** END OF RUN :   79
02350>
02351> ************************************************************************************************
02352>
02353>
02354>
02355>
02356>
02357>  RUN#:COMMAND#
02358> R0080:C00001-----------------------------------------------------------------------------------------
02359>      START
02360>       [TZERO =    .00 hrs on 19800101]
02361>       [METOUT=   2    (1=imperial, 2=metric output)]
02362>       [NSTORM=   0 ]
02363>       [NRUN  = 0080 ]
02364> #*****************************************************************************************************
02365> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02366> #*****************************************************************************************************
02367> #  Project Name: Barrhaven Conservancy Development
02368> #  Project Number: 1474
02369> #  Date        : 2021/Oct/18
02370> #  Modeller    : J.Burnett, P.Eng.
02371> #  Updated     : 2022/Dec/13 [LP]
02372> #  Company     : J.F. Sabourin and Associates
02373> #  License #   : 2582634
02374> #*****************************************************************************************************
02375> # Ottawa International Airport (1967 - 2003)
02376> R0080:C00002-----------------------------------------------------------------------------------------
02377>   *  READ AES DATA
02378>       [Filename  = YOW_1967_2007.123                                        ]
02379>       [Start_date= 1980.0101: End_date= 1980.1230]
02380>       {DT= 60.min: Length= 8760.hrs: WetHrs=  427: DryHrs= 8333: PTOT= 622.00}
02381>       Maximum average rainfall intensities over
02382>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02383>        15.00     9.20     6.50     4.72     3.57     1.97     1.35     1.01      .86    mm/hr
02384>        15.00    18.40    19.50    28.30    42.80    47.20    48.60    48.60    62.00    mm
02385>       19800830 19800830 19801025 19801025 19801026 19801026 19801026 19801027 19800902  date
02386>       Number of rainfall events per following interevent time
02387>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02388>          151      125      112       93       79       62       49       44       28
02389>       Number of events with at least the following durations
02390>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02391>          150       85       54       16        4        0        0        0        0
02392> R0080:C00003-----------------------------------------------------------------------------------------
02393>      COMPUTE API
02394>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02395>       {APImax= 68.72: APIavg= 17.50: APImin=   .06}
02396> #*****************************************************************************************************
02397> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
02398> #*****************************************************************************************************
02399> R0080:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02400>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .246 1980.0830_14:00  333.35 .536     .000
02401>       [XIMP=.66:TIMP=.71]
02402>       [LOSS= 2 :CN= 71.0]
02403>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
```

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02404>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02405>       [IaRECimp=   1.50: IaRECper=   6.00]
02406>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02407> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
02408> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02409> # Total Volume provided by LID  - 179 m³
02410> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02411> R0080:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02412>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .246 1980.0830_14:00  333.35  n/a     .000
02413>                 out <=    5.0 01:W1-LID         2.37     .001 1980.0111_21:10  333.36  n/a     .000
02414>           overflow <=    5.0 03:W1-LID-Out     6.55     .244 1980.0830_14:00  333.35  n/a     .000
02415>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.2183E+01  m3, N-Ovf=  117, TotDurOvf=  162.hrs}
02416> R0080:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02417>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .291 1980.0830_14:00  329.13 .529     .000
02418>       [XIMP=.65:TIMP=.70]
02419>       [LOSS= 2 :CN= 71.0]
02420>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02421>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02422>       [IaRECimp=   1.50: IaRECper=   6.00]
02423>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02424> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
02425> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02426> # Total Volume provided by LID  - 200 m³
02427> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02428> R0080:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02429>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .291 1980.0830_14:00  329.13  n/a     .000
02430>                 out <=    5.0 01:W2-LID         2.71     .001 1980.0111_21:05  329.12  n/a     .000
02431>           overflow <=    5.0 03:W2-LID-Out     8.04     .288 1980.0830_14:00  329.13  n/a     .000
02432>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.2647E+01  m3, N-Ovf=  128, TotDurOvf=  168.hrs}
02433> R0080:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02434>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .143 1980.0830_14:00  283.32 .456     .000
02435>       [XIMP=.53:TIMP=.63]
02436>       [LOSS= 2 :CN= 71.0]
02437>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02438>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02439>       [IaRECimp=   1.50: IaRECper=   6.00]
02440>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02441> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
02442> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02443> # Total Volume provided by LID  - 96 m³
02444> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02445> R0080:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02446>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .143 1980.0830_14:00  283.32  n/a     .000
02447>                 out <=    5.0 01:W3-LID         1.48     .001 1980.0111_21:05  283.33  n/a     .000
02448>           overflow <=    5.0 03:W3-LID-Out     4.82     .142 1980.0830_14:00  283.32  n/a     .000
02449>      {MxStoUsed=.9601E-02  m3, TotOvfVol=.1366E+01  m3, N-Ovf=  128, TotDurOvf=  173.hrs}
02450> R0080:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02451>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .198 1980.0830_14:00  300.36 .483     .000
02452>       [XIMP=.57:TIMP=.67]
02453>       [LOSS= 2 :CN= 71.0]
02454>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02455>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02456>       [IaRECimp=   1.50: IaRECper=   6.00]
02457>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02458> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
02459> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02460> # Total Volume provided by LID  - 131 m³
02461> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02462> R0080:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02463>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .198 1980.0830_14:00  300.36  n/a     .000
02464>                 out <=    5.0 01:W4-LID         1.93     .001 1980.0111_21:05  300.36  n/a     .000
02465>           overflow <=    5.0 03:W4-LID-Out     6.25     .196 1980.0830_14:00  300.36  n/a     .000
02466>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1877E+01  m3, N-Ovf=  128, TotDurOvf=  172.hrs}
02467> R0080:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02468>     ADD HYD               5.0 02:W1             8.92     .246 1980.0830_14:00  333.35  n/a     .000
02469>                     +     5.0 02:W2            10.75     .291 1980.0830_14:00  329.13  n/a     .000
02470>                     +     5.0 02:W3             6.30     .143 1980.0830_14:00  283.32  n/a     .000
02471>                     +     5.0 02:W4             8.18     .198 1980.0830_14:00  300.36  n/a     .000
02472>                   SUM=    5.0 01:BCD-PH3       34.15     .879 1980.0830_14:00  314.89  n/a     .000
02473> R0080:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02474>     ADD HYD               5.0 02:W1-LID-Out     6.55     .244 1980.0830_14:00  333.35  n/a     .000
02475>                     +     5.0 02:W2-LID-Out     8.04     .288 1980.0830_14:00  329.13  n/a     .000
02476>                     +     5.0 02:W3-LID-Out     4.82     .142 1980.0830_14:00  283.32  n/a     .000
02477>                     +     5.0 02:W4-LID-Out     6.25     .196 1980.0830_14:00  300.36  n/a     .000
02478>                   SUM=    5.0 01:BCD-PH3-LI    25.66     .869 1980.0830_14:00  314.59  n/a     .000
02479> #*************************************************************************************************************
02480> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
02481> #*************************************************************************************************************
02482> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02483> #*************************************************************************************************************
02484> R0080:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02485>     CONTINUOUS STANDHYD   5.0 01:INF-W1          8.92     .304 1980.0830_14:00  408.33 .656     .000
02486>       [XIMP=.66:TIMP=.71]
02487>       [LOSS= 2 :CN=100.0]
02488>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02489>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02490>       [IaRECimp=   1.50: IaRECper=   6.00]
02491>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02492> R0080:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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02493>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .362 1980.0830_14:00  406.13 .653     .000
02494>       [XIMP=.65:TIMP=.70]
02495>       [LOSS= 2 :CN=100.0]
02496>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02497>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02498>       [IaRECimp=   1.50: IaRECper=   6.00]
02499>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02500> R0080:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02501>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .204 1980.0830_14:00  390.89 .628     .000
02502>       [XIMP=.53:TIMP=.63]
02503>       [LOSS= 2 :CN=100.0]
02504>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02505>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02506>       [IaRECimp=   1.50: IaRECper=   6.00]
02507>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02508> R0080:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02509>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .271 1980.0830_14:00  399.88 .643     .000
02510>       [XIMP=.57:TIMP=.67]
02511>       [LOSS= 2 :CN=100.0]
02512>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02513>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02514>       [IaRECimp=   1.50: IaRECper=   6.00]
02515>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02516> R0080:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02517>     ADD HYD               5.0 02:INF-W1         8.92     .304 1980.0830_14:00  408.33  n/a     .000
02518>                     +     5.0 02:INF-W2        10.75     .362 1980.0830_14:00  406.13  n/a     .000
02519>                     +     5.0 02:INF-W3         6.30     .204 1980.0830_14:00  390.89  n/a     .000
02520>                     +     5.0 02:INF-W4         8.18     .271 1980.0830_14:00  399.88  n/a     .000
02521>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.141 1980.0830_14:00  402.39  n/a     .000
02522> ##############################################################################
02523> # CONTINUOUS RAINFALL DATA
02524> ##############################################################################
02525>   ** END OF RUN :   80
02526>
02527> ********************************************************************************************************
02528>
02529>
02530>
02531>
02532>
02533>  RUN#:COMMAND#
02534> R0081:C00001-----------------------------------------------------------------------------------------
02535>      START
02536>       [TZERO =    .00 hrs on 19810101]
02537>       [METOUT=   2    (1=imperial, 2=metric output)]
02538>       [NSTORM=   0 ]
02539>       [NRUN  = 0081 ]
02540> #*************************************************************************************************************
02541> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02542> #*************************************************************************************************************
02543> #  Project Name: Barrhaven Conservancy Development
02544> #  Project Number: 1474
02545> #  Date        : 2021/Oct/18
02546> #  Modeller    : J.Burnett, P.Eng.
02547> #  Updated     : 2022/Dec/13 [LP]
02548> #  Company     : J.F. Sabourin and Associates
02549> #  License #   : 2582634
02550> #*************************************************************************************************************
02551> # Ottawa International Airport (1967 - 2003)
02552> R0081:C00002-----------------------------------------------------------------------------------------
02553>   *  READ AES DATA
02554>       [Filename  = YOW_1967_2007.123                                          ]
02555>       [Start_date= 1981.0101: End_date= 1981.1231]
02556>       {DT= 60.min: Length= 8760.hrs: WetHrs=  641: DryHrs= 8119: PTOT= 936.40}
02557>       Maximum average rainfall intensities over
02558>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02559>        35.30    31.85    26.20    18.15     9.27     4.83     3.22     2.41     1.62    mm/hr
02560>        35.30    63.70    78.60   108.90   111.30   115.90   115.90   115.90   116.70    mm
02561>       19810805 19810805 19810805 19810805 19810805 19810805 19810806 19810806 19810805  date
02562>       Number of rainfall events per following interevent time
02563>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02564>          226      171      136      109       83       68       59       47       30
02565>       Number of events with at least the following durations
02566>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02567>          225      128       79       28        7        0        0        0        0
02568> R0081:C00003-----------------------------------------------------------------------------------------
02569>      COMPUTE API
02570>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02571>       {APImax=123.49: APIavg= 25.69: APImin=   .26}
02572> #*************************************************************************************************************
02573> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
02574> #*************************************************************************************************************
02575> R0081:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02576>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .847 1981.0805_ 2:00  545.48 .583     .000
02577>       [XIMP=.66:TIMP=.71]
02578>       [LOSS= 2 :CN= 71.0]
02579>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02580>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02581>       [IaRECimp=   1.50: IaRECper=   6.00]
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02582>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02583> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
02584> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02585> # Total Volume provided by LID  - 179 m³
02586> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02587> R0081:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02588>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .847 1981.0805_ 2:00  545.48  n/a     .000
02589>                   out <=    5.0 01:W1-LID         1.94     .001 1981.0202_12:35  545.48  n/a     .000
02590>             overflow <=    5.0 03:W1-LID-Out     6.98     .832 1981.0805_ 2:05  545.48  n/a     .000
02591>      {MxStoUsed=.1788E-01  m3, TotOvfVol=.3806E+01  m3, N-Ovf=  145, TotDurOvf=  218.hrs}
02592> R0081:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02593>     CONTINUOUS STANDHYD   5.0 01:W2            10.75    1.017 1981.0805_ 2:00  539.83 .577     .000
02594>       [XIMP=.65:TIMP=.70]
02595>       [LOSS= 2 :CN= 71.0]
02596>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02597>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02598>       [IaRECimp=   1.50: IaRECper=   6.00]
02599>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02600> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
02601> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02602> # Total Volume provided by LID  - 200 m³
02603> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02604> R0081:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02605>     ROUTE RESERVOIR ->    5.0 02:W2            10.75    1.017 1981.0805_ 2:00  539.83  n/a     .000
02606>                   out <=    5.0 01:W2-LID         2.20     .001 1981.0202_12:25  539.82  n/a     .000
02607>             overflow <=    5.0 03:W2-LID-Out     8.55    1.002 1981.0805_ 2:05  539.83  n/a     .000
02608>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.4616E+01  m3, N-Ovf=  149, TotDurOvf=  224.hrs}
02609> R0081:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02610>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .600 1981.0805_ 2:00  481.48 .514     .000
02611>       [XIMP=.53:TIMP=.63]
02612>       [LOSS= 2 :CN= 71.0]
02613>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02614>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02615>       [IaRECimp=   1.50: IaRECper=   6.00]
02616>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02617> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
02618> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02619> # Total Volume provided by LID  - 96 m³
02620> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02621> R0081:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02622>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .600 1981.0805_ 2:00  481.48  n/a     .000
02623>                   out <=    5.0 01:W3-LID         1.15     .001 1981.0202_12:15  481.49  n/a     .000
02624>             overflow <=    5.0 03:W3-LID-Out     5.15     .572 1981.0805_ 2:00  481.48  n/a     .000
02625>      {MxStoUsed=.9601E-02  m3, TotOvfVol=.2479E+01  m3, N-Ovf=  151, TotDurOvf=  228.hrs}
02626> R0081:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02627>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .781 1981.0805_ 2:00  504.22 .538     .000
02628>       [XIMP=.57:TIMP=.67]
02629>       [LOSS= 2 :CN= 71.0]
02630>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02631>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02632>       [IaRECimp=   1.50: IaRECper=   6.00]
02633>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02634> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
02635> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02636> # Total Volume provided by LID  - 131 m³
02637> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02638> R0081:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02639>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .781 1981.0805_ 2:00  504.22  n/a     .000
02640>                   out <=    5.0 01:W4-LID         1.53     .001 1981.0202_12:15  504.22  n/a     .000
02641>             overflow <=    5.0 03:W4-LID-Out     6.65     .777 1981.0805_ 2:05  504.22  n/a     .000
02642>      {MxStoUsed=.1308E-01  m3, TotOvfVol=.3355E+01  m3, N-Ovf=  153, TotDurOvf=  227.hrs}
02643> R0081:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02644>     ADD HYD               5.0 02:W1             8.92     .847 1981.0805_ 2:00  545.48  n/a     .000
02645>                     +     5.0 02:W2            10.75    1.017 1981.0805_ 2:00  539.83  n/a     .000
02646>                     +     5.0 02:W3             6.30     .600 1981.0805_ 2:00  481.48  n/a     .000
02647>                     +     5.0 02:W4             8.18     .781 1981.0805_ 2:00  504.22  n/a     .000
02648>                   SUM=    5.0 01:BCD-PH3       34.15    3.245 1981.0805_ 2:00  522.01  n/a     .000
02649> R0081:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02650>     ADD HYD               5.0 02:W1-LID-Out     6.98     .832 1981.0805_ 2:05  545.48  n/a     .000
02651>                     +     5.0 02:W2-LID-Out     8.55    1.002 1981.0805_ 2:05  539.83  n/a     .000
02652>                     +     5.0 02:W3-LID-Out     5.15     .572 1981.0805_ 2:00  481.48  n/a     .000
02653>                     +     5.0 02:W4-LID-Out     6.65     .777 1981.0805_ 2:05  504.22  n/a     .000
02654>                   SUM=    5.0 01:BCD-PH3-LI    27.33    3.178 1981.0805_ 2:05  521.61  n/a     .000
02655> #*****************************************************************************************************
02656> #                 Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
02657> #*****************************************************************************************************
02658> #                 Set infiltration to 0 (CN = 99.99) for water balance analysis
02659> #*****************************************************************************************************
02660> R0081:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02661>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .875 1981.0805_ 2:00  650.22 .694     .000
02662>       [XIMP=.66:TIMP=.71]
02663>       [LOSS= 2 :CN=100.0]
02664>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02665>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02666>       [IaRECimp=   1.50: IaRECper=   6.00]
02667>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02668> R0081:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02669>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75    1.055 1981.0805_ 2:00  647.50 .691     .000
02670>       [XIMP=.65:TIMP=.70]
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02671>       [LOSS= 2 :CN=100.0]
02672>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02673>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02674>       [IaRECimp=   1.50: IaRECper=   6.00]
02675>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02676> R0081:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02677>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .621 1981.0805_ 2:00  629.67 .672     .000
02678>       [XIMP=.53:TIMP=.63]
02679>       [LOSS= 2 :CN=100.0]
02680>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02681>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02682>       [IaRECimp=   1.50: IaRECper=   6.00]
02683>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02684> R0081:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02685>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .805 1981.0805_ 2:00  640.67 .684     .000
02686>       [XIMP=.57:TIMP=.67]
02687>       [LOSS= 2 :CN=100.0]
02688>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02689>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02690>       [IaRECimp=   1.50: IaRECper=   6.00]
02691>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02692> R0081:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02693>     ADD HYD               5.0 02:INF-W1         8.92     .875 1981.0805_ 2:00  650.22  n/a     .000
02694>                     +     5.0 02:INF-W2        10.75    1.055 1981.0805_ 2:00  647.50  n/a     .000
02695>                     +     5.0 02:INF-W3         6.30     .621 1981.0805_ 2:00  629.67  n/a     .000
02696>                     +     5.0 02:INF-W4         8.18     .805 1981.0805_ 2:00  640.67  n/a     .000
02697>                   SUM=    5.0 01:INF-BCD-PH    34.15    3.356 1981.0805_ 2:00  643.29  n/a     .000
02698> ###############################################################################
02699> # CONTINUOUS RAINFALL DATA
02700> ###############################################################################
02701>   ** END OF RUN :   81
02702>
02703> ************************************************************************************************
02704>
02705>
02706>
02707>
02708>
02709>  RUN#:COMMAND#
02710> R0082:C00001-----------------------------------------------------------------------------------------
02711>      START
02712>       [TZERO =    .00 hrs on 19820101]
02713>       [METOUT=   2    (1=imperial, 2=metric output)]
02714>       [NSTORM=   0 ]
02715>       [NRUN  = 0082 ]
02716> #*****************************************************************************************************************
02717> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02718> #*****************************************************************************************************************
02719> #  Project Name: Barrhaven Conservancy Development
02720> #  Project Number: 1474
02721> #  Date        : 2021/Oct/18
02722> #  Modeller    : J.Burnett, P.Eng.
02723> #  Updated     : 2022/Dec/13 [LP]
02724> #  Company     : J.F. Sabourin and Associates
02725> #  License #   : 2582634
02726> #*****************************************************************************************************************
02727> # Ottawa International Airport (1967 - 2003)
02728> R0082:C00002-----------------------------------------------------------------------------------------
02729>   *  READ AES DATA
02730>       [Filename  = YOW_1967_2007.123                                          ]
02731>       [Start_date= 1982.0101: End_date= 1982.1231]
02732>       {DT= 60.min: Length= 8760.hrs: WetHrs=  436: DryHrs= 8324: PTOT= 596.10}
02733>       Maximum average rainfall intensities over
02734>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02735>        19.80    10.75     7.60     5.83     3.36     1.68     1.12      .96      .80    mm/hr
02736>        19.80    21.50    22.80    35.00    40.30    40.30    40.30    46.30    57.30    mm
02737>       19820801 19820901 19820825 19820825 19820825 19820826 19820826 19820825 19820825  date
02738>       Number of rainfall events per following interevent time
02739>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02740>          134      110       98       78       66       57       48       41       33
02741>       Number of events with at least the following durations
02742>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02743>          133       81       58       18        4        1        1        0        0
02744> R0082:C00003-----------------------------------------------------------------------------------------
02745>      COMPUTE API
02746>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02747>       {APImax= 56.66: APIavg= 16.78: APImin=   .03}
02748> #*****************************************************************************************************************
02749> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
02750> #*****************************************************************************************************************
02751> R0082:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02752>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .332 1982.0801_19:00  318.54 .534     .000
02753>       [XIMP=.66:TIMP=.71]
02754>       [LOSS= 2 :CN= 71.0]
02755>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02756>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02757>       [IaRECimp=   1.50: IaRECper=   6.00]
02758>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02759> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
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02760> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02761> # Total Volume provided by LID  - 179 m³
02762> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02763> R0082:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02764>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .332 1982.0801_19:00  318.54  n/a     .000
02765>                   out <=    5.0 01:W1-LID         2.61     .001 1982.0313_11:20  318.55  n/a     .000
02766>              overflow <=    5.0 03:W1-LID-Out     6.31     .329 1982.0801_19:00  318.54  n/a     .000
02767>       {MxStoUsed=.1790E-01  m3, TotOvfVol=.2011E+01  m3, N-Ovf=  122, TotDurOvf=  176.hrs}
02768> R0082:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02769>     CONTINUOUS STANDHYD   5.0 01:W2           10.75     .392 1982.0801_19:00  314.38 .527     .000
02770>       [XIMP=.65:TIMP=.70]
02771>       [LOSS= 2 :CN= 71.0]
02772>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02773>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02774>       [IaRECimp=   1.50: IaRECper=   6.00]
02775>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02776> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
02777> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02778> # Total Volume provided by LID  - 200 m³
02779> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02780> R0082:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02781>     ROUTE RESERVOIR ->    5.0 02:W2           10.75     .392 1982.0801_19:00  314.38  n/a     .000
02782>                   out <=    5.0 01:W2-LID         2.96     .001 1982.0313_11:15  314.37  n/a     .000
02783>              overflow <=    5.0 03:W2-LID-Out     7.79     .388 1982.0801_19:00  314.38  n/a     .000
02784>       {MxStoUsed=.2000E-01  m3, TotOvfVol=.2449E+01  m3, N-Ovf=  123, TotDurOvf=  184.hrs}
02785> R0082:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02786>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .195 1982.0801_19:00  268.25 .450     .000
02787>       [XIMP=.53:TIMP=.63]
02788>       [LOSS= 2 :CN= 71.0]
02789>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02790>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02791>       [IaRECimp=   1.50: IaRECper=   6.00]
02792>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02793> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
02794> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02795> # Total Volume provided by LID  - 96 m³
02796> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02797> R0082:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02798>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .195 1982.0801_19:00  268.25  n/a     .000
02799>                   out <=    5.0 01:W3-LID         1.64     .001 1982.0313_11:15  268.25  n/a     .000
02800>              overflow <=    5.0 03:W3-LID-Out     4.66     .193 1982.0801_19:00  268.25  n/a     .000
02801>       {MxStoUsed=.9596E-02  m3, TotOvfVol=.1251E+01  m3, N-Ovf=  138, TotDurOvf=  187.hrs}
02802> R0082:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02803>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .270 1982.0801_19:00  285.01 .478     .000
02804>       [XIMP=.57:TIMP=.67]
02805>       [LOSS= 2 :CN= 71.0]
02806>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02807>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02808>       [IaRECimp=   1.50: IaRECper=   6.00]
02809>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02810> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
02811> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02812> # Total Volume provided by LID  - 131 m³
02813> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02814> R0082:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02815>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .270 1982.0801_19:00  285.01  n/a     .000
02816>                   out <=    5.0 01:W4-LID         2.13     .001 1982.0313_11:15  285.01  n/a     .000
02817>              overflow <=    5.0 03:W4-LID-Out     6.05     .266 1982.0801_19:00  285.01  n/a     .000
02818>       {MxStoUsed=.1310E-01  m3, TotOvfVol=.1726E+01  m3, N-Ovf=  135, TotDurOvf=  188.hrs}
02819> R0082:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02820>     ADD HYD               5.0 02:W1             8.92     .332 1982.0801_19:00  318.54  n/a     .000
02821>                       +     5.0 02:W2           10.75     .392 1982.0801_19:00  314.38  n/a     .000
02822>                       +     5.0 02:W3            6.30     .195 1982.0801_19:00  268.25  n/a     .000
02823>                       +     5.0 02:W4            8.18     .270 1982.0801_19:00  285.01  n/a     .000
02824>                    SUM=     5.0 01:BCD-PH3      34.15    1.189 1982.0801_19:00  299.92  n/a     .000
02825> R0082:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02826>     ADD HYD               5.0 02:W1-LID-Out     6.31     .329 1982.0801_19:00  318.54  n/a     .000
02827>                       +     5.0 02:W2-LID-Out     7.79     .388 1982.0801_19:00  314.38  n/a     .000
02828>                       +     5.0 02:W3-LID-Out     4.66     .193 1982.0801_19:00  268.25  n/a     .000
02829>                       +     5.0 02:W4-LID-Out     6.05     .266 1982.0801_19:00  285.01  n/a     .000
02830>                    SUM=     5.0 01:BCD-PH3-LI    24.82    1.176 1982.0801_19:00  299.61  n/a     .000
02831> #*************************************************************************************************
02832> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
02833> #*************************************************************************************************
02834> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02835> #*************************************************************************************************
02836> R0082:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02837>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .429 1982.0801_19:00  388.92 .652     .000
02838>       [XIMP=.66:TIMP=.71]
02839>       [LOSS= 2 :CN=100.0]
02840>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02841>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02842>       [IaRECimp=   1.50: IaRECper=   6.00]
02843>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02844> R0082:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02845>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .512 1982.0801_19:00  386.61 .649     .000
02846>       [XIMP=.65:TIMP=.70]
02847>       [LOSS= 2 :CN=100.0]
02848>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
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02849>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02850>       [IaRECimp=   1.50: IaRECper=   6.00]
02851>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02852> R0082:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02853>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .302 1982.0801_19:00  370.01 .621     .000
02854>       [XIMP=.53:TIMP=.63]
02855>       [LOSS= 2 :CN=100.0]
02856>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02857>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02858>       [IaRECimp=   1.50: IaRECper=   6.00]
02859>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02860> R0082:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02861>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .396 1982.0801_19:00  379.41 .637     .000
02862>       [XIMP=.57:TIMP=.67]
02863>       [LOSS= 2 :CN=100.0]
02864>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02865>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02866>       [IaRECimp=   1.50: IaRECper=   6.00]
02867>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
02868> R0082:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02869>     ADD HYD               5.0 02:INF-W1         8.92     .429 1982.0801_19:00  388.92  n/a     .000
02870>                     +     5.0 02:INF-W2        10.75     .512 1982.0801_19:00  386.61  n/a     .000
02871>                     +     5.0 02:INF-W3         6.30     .302 1982.0801_19:00  370.01  n/a     .000
02872>                     +     5.0 02:INF-W4         8.18     .396 1982.0801_19:00  379.41  n/a     .000
02873>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.639 1982.0801_19:00  382.43  n/a     .000
02874> ##############################################################################
02875> # CONTINUOUS RAINFALL DATA
02876> ##############################################################################
02877>   ** END OF RUN :   82
02878>
02879> ************************************************************************************************
02880>
02881>
02882>
02883>
02884>
02885>  RUN#:COMMAND#
02886> R0083:C00001-----------------------------------------------------------------------------------
02887>      START
02888>       [TZERO =    .00 hrs on 19830101]
02889>       [METOUT=   2    (1=imperial, 2=metric output)]
02890>       [NSTORM=   0 ]
02891>       [NRUN  = 0083 ]
02892> #*****************************************************************************************************
02893> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02894> #*****************************************************************************************************
02895> #  Project Name: Barrhaven Conservancy Development
02896> #  Project Number: 1474
02897> #  Date        : 2021/Oct/18
02898> #  Modeller    : J.Burnett, P.Eng.
02899> #  Updated     : 2022/Dec/13 [LP]
02900> #  Company     : J.F. Sabourin and Associates
02901> #  License #   : 2582634
02902> #*****************************************************************************************************
02903> # Ottawa International Airport (1967 - 2003)
02904> R0083:C00002-----------------------------------------------------------------------------------
02905>   *  READ AES DATA
02906>       [Filename  = YOW_1967_2007.123                                        ]
02907>       [Start_date= 1983.0101: End_date= 1983.1231]
02908>       {DT= 60.min: Length= 8760.hrs: WetHrs=  462: DryHrs= 8298: PTOT= 587.50}
02909>       Maximum average rainfall intensities over
02910>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02911>        10.40     9.70     7.53     5.43     3.18     2.36     1.68     1.32      .92    mm/hr
02912>        10.40    19.40    22.60    32.60    38.20    56.70    60.40    63.20    66.00    mm
02913>       19831004 19830921 19830921 19831005 19831005 19831005 19831005 19831006 19831008  date
02914>       Number of rainfall events per following interevent time
02915>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02916>          143      115      103       85       70       55       50       45       35
02917>       Number of events with at least the following durations
02918>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02919>          142       87       56       28        5        0        0        0        0
02920> R0083:C00003-----------------------------------------------------------------------------------
02921>      COMPUTE API
02922>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02923>       {APImax= 79.86: APIavg= 16.57: APImin=   .05}
02924> #*****************************************************************************************************
02925> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
02926> #*****************************************************************************************************
02927> R0083:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02928>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .196 1983.1005_15:00  305.95 .521     .000
02929>       [XIMP=.66:TIMP=.71]
02930>       [LOSS= 2 :CN= 71.0]
02931>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02932>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
02933>       [IaRECimp=   1.50: IaRECper=   6.00]
02934>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02935> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
02936> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02937> # Total Volume provided by LID  - 179 m³
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02938> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02939> R0083:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02940>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .196 1983.1005_15:00  305.95  n/a     .000
02941>                 out <=    5.0 01:W1-LID         2.68     .001 1983.0318_23:35  305.96  n/a     .000
02942>            overflow <=    5.0 03:W1-LID-Out     6.24     .194 1983.1005_15:00  305.95  n/a     .000
02943>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.1910E+01  m3, N-Ovf=  128, TotDurOvf=  184.hrs}
02944> R0083:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02945>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .234 1983.1005_15:00  302.07 .514     .000
02946>       [XIMP=.65:TIMP=.70]
02947>       [LOSS= 2 :CN= 71.0]
02948>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02949>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
02950>       [IaRECimp=   1.50: IaRECper=   6.00]
02951>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02952> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
02953> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02954> # Total Volume provided by LID  - 200 m³
02955> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02956> R0083:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02957>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .234 1983.1005_15:00  302.07  n/a     .000
02958>                 out <=    5.0 01:W2-LID         3.04     .001 1983.0318_23:35  302.06  n/a     .000
02959>            overflow <=    5.0 03:W2-LID-Out     7.71     .231 1983.1005_15:00  302.07  n/a     .000
02960>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2328E+01  m3, N-Ovf=  116, TotDurOvf=  191.hrs}
02961> R0083:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02962>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .129 1983.1005_15:00  259.77 .442     .000
02963>       [XIMP=.53:TIMP=.63]
02964>       [LOSS= 2 :CN= 71.0]
02965>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02966>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
02967>       [IaRECimp=   1.50: IaRECper=   6.00]
02968>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02969> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
02970> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02971> # Total Volume provided by LID  - 96 m³
02972> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02973> R0083:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02974>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .129 1983.1005_15:00  259.77  n/a     .000
02975>                 out <=    5.0 01:W3-LID         1.67     .001 1983.0318_23:30  259.78  n/a     .000
02976>            overflow <=    5.0 03:W3-LID-Out     4.63     .127 1983.1005_15:00  259.77  n/a     .000
02977>      {MxStoUsed=.9592E-02  m3, TotOvfVol=.1203E+01  m3, N-Ovf=  125, TotDurOvf=  195.hrs}
02978> R0083:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02979>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .173 1983.1005_15:00  275.42 .469     .000
02980>       [XIMP=.57:TIMP=.67]
02981>       [LOSS= 2 :CN= 71.0]
02982>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02983>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
02984>       [IaRECimp=   1.50: IaRECper=   6.00]
02985>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02986> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
02987> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02988> # Total Volume provided by LID  - 131 m³
02989> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02990> R0083:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02991>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .173 1983.1005_15:00  275.42  n/a     .000
02992>                 out <=    5.0 01:W4-LID         2.17     .001 1983.0318_23:35  275.42  n/a     .000
02993>            overflow <=    5.0 03:W4-LID-Out     6.01     .171 1983.1005_15:05  275.42  n/a     .000
02994>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1654E+01  m3, N-Ovf=  124, TotDurOvf=  195.hrs}
02995> R0083:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02996>     ADD HYD               5.0 02:W1             8.92     .196 1983.1005_15:00  305.95  n/a     .000
02997>                       +     5.0 02:W2            10.75     .234 1983.1005_15:00  302.07  n/a     .000
02998>                       +     5.0 02:W3             6.30     .129 1983.1005_15:00  259.77  n/a     .000
02999>                       +     5.0 02:W4             8.18     .173 1983.1005_15:00  275.42  n/a     .000
03000>                   SUM=      5.0 01:BCD-PH3       34.15     .732 1983.1005_15:00  288.90  n/a     .000
03001> R0083:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03002>     ADD HYD               5.0 02:W1-LID-Out     6.24     .194 1983.1005_15:00  305.95  n/a     .000
03003>                       +     5.0 02:W2-LID-Out     7.71     .231 1983.1005_15:00  302.07  n/a     .000
03004>                       +     5.0 02:W3-LID-Out     4.63     .127 1983.1005_15:00  259.77  n/a     .000
03005>                       +     5.0 02:W4-LID-Out     6.01     .171 1983.1005_15:05  275.42  n/a     .000
03006>                   SUM=      5.0 01:BCD-PH3-LI    24.58     .722 1983.1005_15:05  288.58  n/a     .000
03007> #*************************************************************************************************************
03008> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
03009> #*************************************************************************************************************
03010> #                   Set infiltration to 0 (CN = 99.99) for water balance analysis
03011> #*************************************************************************************************************
03012> R0083:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03013>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .242 1983.1005_15:00  370.31 .630     .000
03014>       [XIMP=.66:TIMP=.71]
03015>       [LOSS= 2 :CN=100.0]
03016>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03017>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03018>       [IaRECimp=   1.50: IaRECper=   6.00]
03019>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03020> R0083:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03021>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .291 1983.1005_15:00  368.12 .627     .000
03022>       [XIMP=.65:TIMP=.70]
03023>       [LOSS= 2 :CN=100.0]
03024>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03025>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03026>       [IaRECimp=   1.50: IaRECper=   6.00]
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03027>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03028> R0083:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03029>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .171 1983.1005_15:00  353.08 .601     .000
03030>       [XIMP=.53:TIMP=.63]
03031>       [LOSS= 2 :CN=100.0]
03032>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03033>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03034>       [IaRECimp=   1.50: IaRECper=   6.00]
03035>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03036> R0083:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03037>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .221 1983.1005_15:00  362.01 .616     .000
03038>       [XIMP=.57:TIMP=.67]
03039>       [LOSS= 2 :CN=100.0]
03040>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03041>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03042>       [IaRECimp=   1.50: IaRECper=   6.00]
03043>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03044> R0083:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03045>     ADD HYD               5.0 02:INF-W1         8.92     .242 1983.1005_15:00  370.31  n/a     .000
03046>                     +     5.0 02:INF-W2        10.75     .291 1983.1005_15:00  368.12  n/a     .000
03047>                     +     5.0 02:INF-W3         6.30     .171 1983.1005_15:00  353.08  n/a     .000
03048>                     +     5.0 02:INF-W4         8.18     .221 1983.1005_15:00  362.01  n/a     .000
03049>                   SUM=    5.0 01:INF-BCD-PH    34.15     .925 1983.1005_15:00  364.45  n/a     .000
03050> ###############################################################################
03051> # CONTINUOUS RAINFALL DATA
03052> ###############################################################################
03053>   ** END OF RUN :   83
03054>
03055> ***************************************************************************************************
03056>
03057>
03058>
03059>
03060>
03061>  RUN#:COMMAND#
03062> R0084:C00001-----------------------------------------------------------------------------------------
03063>      START
03064>       [TZERO =    .00 hrs on 19840101]
03065>       [METOUT=   2    (1=imperial, 2=metric output)]
03066>       [NSTORM=   0 ]
03067>       [NRUN  = 0084 ]
03068> #*************************************************************************************************************
03069> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03070> #*************************************************************************************************************
03071> #  Project Name: Barrhaven Conservancy Development
03072> #  Project Number: 1474
03073> #  Date        : 2021/Oct/18
03074> #  Modeller    : J.Burnett, P.Eng.
03075> #  Updated     : 2022/Dec/13 [LP]
03076> #  Company     : J.F. Sabourin and Associates
03077> #  License #   : 2582634
03078> #*************************************************************************************************************
03079> # Ottawa International Airport (1967 - 2003)
03080> R0084:C00002-----------------------------------------------------------------------------------------
03081>   *  READ AES DATA
03082>       [Filename  = YOW_1967_2007.123                                        ]
03083>       [Start_date= 1984.0101: End_date= 1984.1230]
03084>       {DT= 60.min: Length= 8760.hrs: WetHrs=  308: DryHrs= 8452: PTOT= 459.40}
03085>       Maximum average rainfall intensities over
03086>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03087>        17.80     9.70     7.57     4.33     3.01     1.85     1.58     1.19     1.00    mm/hr
03088>        17.80    19.40    22.70    26.00    36.10    44.30    57.00    57.00    72.20    mm
03089>       19840812 19840812 19840812 19840806 19840812 19840813 19840813 19840814 19840813  date
03090>       Number of rainfall events per following interevent time
03091>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03092>           98       80       75       63       55       48       40       34       26
03093>       Number of events with at least the following durations
03094>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03095>           97       58       39       11        3        1        0        0        0
03096> R0084:C00003-----------------------------------------------------------------------------------------
03097>      COMPUTE API
03098>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03099>       {APImax= 86.83: APIavg= 13.22: APImin=   .00}
03100> #*************************************************************************************************************
03101> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
03102> #*************************************************************************************************************
03103> R0084:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03104>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .314 1984.0812_ 7:00  254.10 .553     .000
03105>       [XIMP=.66:TIMP=.71]
03106>       [LOSS= 2 :CN= 71.0]
03107>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03108>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03109>       [IaRECimp=   1.50: IaRECper=   6.00]
03110>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03111> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
03112> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03113> # Total Volume provided by LID  - 179 m³
03114> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03115> R0084:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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03116>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .314 1984.0812_ 7:00  254.10  n/a     .000
03117>                   out <=    5.0 01:W1-LID          2.14     .001 1984.0214_ 9:10  254.10  n/a     .000
03118>              overflow <=    5.0 03:W1-LID-Out      6.78     .310 1984.0812_ 7:00  254.10  n/a     .000
03119>       {MxStoUsed=.1788E-01  m3, TotOvfVol=.1723E+01  m3, N-Ovf=   89, TotDurOvf=  140.hrs}
03120> R0084:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03121>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .373 1984.0812_ 7:00  250.97 .546     .000
03122>       [XIMP=.65:TIMP=.70]
03123>       [LOSS= 2 :CN= 71.0]
03124>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03125>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03126>       [IaRECimp=   1.50: IaRECper=   6.00]
03127>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03128> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
03129> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03130> # Total Volume provided by LID  - 200 m³
03131> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03132> R0084:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03133>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .373 1984.0812_ 7:00  250.97  n/a     .000
03134>                   out <=    5.0 01:W2-LID          2.44     .001 1984.0214_ 9:00  250.97  n/a     .000
03135>              overflow <=    5.0 03:W2-LID-Out      8.31     .369 1984.0812_ 7:00  250.97  n/a     .000
03136>       {MxStoUsed=.2000E-01  m3, TotOvfVol=.2086E+01  m3, N-Ovf=   97, TotDurOvf=  143.hrs}
03137> R0084:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03138>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .194 1984.0812_ 7:00  217.61 .474     .000
03139>       [XIMP=.53:TIMP=.63]
03140>       [LOSS= 2 :CN= 71.0]
03141>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03142>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03143>       [IaRECimp=   1.50: IaRECper=   6.00]
03144>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03145> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
03146> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03147> # Total Volume provided by LID  - 96 m³
03148> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03149> R0084:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03150>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .194 1984.0812_ 7:00  217.61  n/a     .000
03151>                   out <=    5.0 01:W3-LID          1.33     .001 1984.0214_ 8:55  217.61  n/a     .000
03152>              overflow <=    5.0 03:W3-LID-Out      4.97     .191 1984.0812_ 7:00  217.61  n/a     .000
03153>       {MxStoUsed=.9592E-02  m3, TotOvfVol=.1082E+01  m3, N-Ovf=   97, TotDurOvf=  147.hrs}
03154> R0084:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03155>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .265 1984.0812_ 7:00  230.17 .501     .000
03156>       [XIMP=.57:TIMP=.67]
03157>       [LOSS= 2 :CN= 71.0]
03158>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03159>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03160>       [IaRECimp=   1.50: IaRECper=   6.00]
03161>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03162> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
03163> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03164> # Total Volume provided by LID  - 131 m³
03165> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03166> R0084:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03167>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .265 1984.0812_ 7:00  230.18  n/a     .000
03168>                   out <=    5.0 01:W4-LID          1.73     .001 1984.0214_ 8:55  230.17  n/a     .000
03169>              overflow <=    5.0 03:W4-LID-Out      6.45     .261 1984.0812_ 7:00  230.18  n/a     .000
03170>       {MxStoUsed=.1309E-01  m3, TotOvfVol=.1484E+01  m3, N-Ovf=   88, TotDurOvf=  146.hrs}
03171> R0084:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03172>     ADD HYD               5.0 02:W1             8.92     .314 1984.0812_ 7:00  254.10  n/a     .000
03173>                     +     5.0 02:W2            10.75     .373 1984.0812_ 7:00  250.97  n/a     .000
03174>                     +     5.0 02:W3             6.30     .194 1984.0812_ 7:00  217.61  n/a     .000
03175>                     +     5.0 02:W4             8.18     .265 1984.0812_ 7:00  230.18  n/a     .000
03176>                   SUM=    5.0 01:BCD-PH3       34.15    1.147 1984.0812_ 7:00  240.65  n/a     .000
03177> R0084:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03178>     ADD HYD               5.0 02:W1-LID-Out      6.78     .310 1984.0812_ 7:00  254.10  n/a     .000
03179>                     +     5.0 02:W2-LID-Out      8.31     .369 1984.0812_ 7:00  250.97  n/a     .000
03180>                     +     5.0 02:W3-LID-Out      4.97     .191 1984.0812_ 7:00  217.61  n/a     .000
03181>                     +     5.0 02:W4-LID-Out      6.45     .261 1984.0812_ 7:00  230.18  n/a     .000
03182>                   SUM=    5.0 01:BCD-PH3-LI     26.51    1.131 1984.0812_ 7:00  240.45  n/a     .000
03183> #*******************************************************************************************************
03184> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
03185> #*******************************************************************************************************
03186> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03187> #*******************************************************************************************************
03188> R0084:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03189>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .413 1984.0812_ 7:00  313.27 .682     .000
03190>       [XIMP=.66:TIMP=.71]
03191>       [LOSS= 2 :CN=100.0]
03192>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03193>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03194>       [IaRECimp=   1.50: IaRECper=   6.00]
03195>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03196> R0084:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03197>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .495 1984.0812_ 7:00  311.76 .679     .000
03198>       [XIMP=.65:TIMP=.70]
03199>       [LOSS= 2 :CN=100.0]
03200>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03201>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03202>       [IaRECimp=   1.50: IaRECper=   6.00]
03203>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03204> R0084:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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03205>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .292 1984.0812_ 7:00  301.85 .657     .000
03206>       [XIMP=.53:TIMP=.63]
03207>       [LOSS= 2 :CN=100.0]
03208>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03209>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03210>       [IaRECimp=   1.50: IaRECper=   6.00]
03211>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03212> R0084:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03213>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .376 1984.0812_ 7:00  307.93 .670     .000
03214>       [XIMP=.57:TIMP=.67]
03215>       [LOSS= 2 :CN=100.0]
03216>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03217>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03218>       [IaRECimp=   1.50: IaRECper=   6.00]
03219>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03220> R0084:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03221>     ADD HYD               5.0 02:INF-W1         8.92     .413 1984.0812_ 7:00  313.27  n/a     .000
03222>                       +     5.0 02:INF-W2        10.75     .495 1984.0812_ 7:00  311.76  n/a     .000
03223>                       +     5.0 02:INF-W3         6.30     .292 1984.0812_ 7:00  301.85  n/a     .000
03224>                       +     5.0 02:INF-W4         8.18     .376 1984.0812_ 7:00  307.93  n/a     .000
03225>                   SUM=      5.0 01:INF-BCD-PH    34.15    1.577 1984.0812_ 7:00  309.41  n/a     .000
03226> ################################################################################
03227> # CONTINUOUS RAINFALL DATA
03228> ################################################################################
03229>   ** END OF RUN :   84
03230>
03231> ********************************************************************************************************
03232>
03233>
03234>
03235>
03236>
03237>  RUN#:COMMAND#
03238> R0085:C00001-----------------------------------------------------------------------------------------
03239>      START
03240>       [TZERO =    .00 hrs on 19850101]
03241>       [METOUT=   2    (1=imperial, 2=metric output)]
03242>       [NSTORM=   0 ]
03243>       [NRUN  = 0085 ]
03244> #*********************************************************************************************************************
03245> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03246> #*********************************************************************************************************************
03247> #  Project Name: Barrhaven Conservancy Development
03248> #  Project Number: 1474
03249> #  Date        : 2021/Oct/18
03250> #  Modeller    : J.Burnett, P.Eng.
03251> #  Updated     : 2022/Dec/13 [LP]
03252> #  Company     : J.F. Sabourin and Associates
03253> #  License #   : 2582634
03254> #*********************************************************************************************************************
03255> # Ottawa International Airport (1967 - 2003)
03256> R0085:C00002-----------------------------------------------------------------------------------------
03257>   *  READ AES DATA
03258>       [Filename  = YOW_1967_2007.123                                        ]
03259>       [Start_date= 1985.0101: End_date= 1985.1231]
03260>       {DT= 60.min: Length= 8760.hrs: WetHrs=  354: DryHrs= 8406: PTOT= 559.90}
03261>       Maximum average rainfall intensities over
03262>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03263>        19.00    13.60    11.73     6.60     3.30     1.65     1.11      .89      .60    mm/hr
03264>        19.00    27.20    35.20    39.60    39.60    39.60    40.10    42.80    43.40    mm
03265>       19850716 19850617 19850617 19850618 19850618 19850618 19850618 19850827 19850827  date
03266>       Number of rainfall events per following interevent time
03267>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03268>          108       88       84       74       69       56       49       43       32
03269>       Number of events with at least the following durations
03270>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03271>          107       70       43       13        4        1        0        0        0
03272> R0085:C00003-----------------------------------------------------------------------------------------
03273>      COMPUTE API
03274>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03275>       {APImax= 57.29: APIavg= 15.86: APImin=   .20}
03276> #*********************************************************************************************************************
03277> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
03278> #*********************************************************************************************************************
03279> R0085:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03280>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .320 1985.0716_14:00  313.70 .560     .000
03281>       [XIMP=.66:TIMP=.71]
03282>       [LOSS= 2 :CN= 71.0]
03283>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03284>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03285>       [IaRECimp=   1.50: IaRECper=   6.00]
03286>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03287> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
03288> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03289> # Total Volume provided by LID  - 179 m³
03290> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03291> R0085:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03292>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .320 1985.0716_14:00  313.70  n/a     .000
03293>                 out <=    5.0 01:W1-LID         2.11     .001 1985.0223_12:30  313.71  n/a     .000
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03294>           overflow <=    5.0 03:W1-LID-Out     6.81     .317 1985.0716_14:00  313.70  n/a     .000
03295>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.2136E+01  m3, N-Ovf=   76, TotDurOvf=  145.hrs}
03296> R0085:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03297>     CONTINUOUS STANDHYD   5.0 01:W2           10.75     .379 1985.0716_14:00  309.67 .553     .000
03298>       [XIMP=.65:TIMP=.70]
03299>       [LOSS= 2 :CN= 71.0]
03300>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03301>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03302>       [IaRECimp=   1.50: IaRECper=   6.00]
03303>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03304> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
03305> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03306> # Total Volume provided by LID  - 200 m³
03307> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03308> R0085:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03309>     ROUTE RESERVOIR ->    5.0 02:W2           10.75     .379 1985.0716_14:00  309.67  n/a     .000
03310>                 out <=    5.0 01:W2-LID        2.41     .001 1985.0222_ 9:10  309.67  n/a     .000
03311>           overflow <=    5.0 03:W2-LID-Out     8.34     .375 1985.0716_14:00  309.67  n/a     .000
03312>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2581E+01  m3, N-Ovf=   86, TotDurOvf=  150.hrs}
03313> R0085:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03314>     CONTINUOUS STANDHYD   5.0 01:W3            6.30     .188 1985.0716_14:00  265.42 .474     .000
03315>       [XIMP=.53:TIMP=.63]
03316>       [LOSS= 2 :CN= 71.0]
03317>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03318>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03319>       [IaRECimp=   1.50: IaRECper=   6.00]
03320>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03321> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
03322> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03323> # Total Volume provided by LID  - 96 m³
03324> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03325> R0085:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03326>     ROUTE RESERVOIR ->    5.0 02:W3            6.30     .188 1985.0716_14:00  265.42  n/a     .000
03327>                 out <=    5.0 01:W3-LID        1.33     .001 1985.0222_ 9:05  265.43  n/a     .000
03328>           overflow <=    5.0 03:W3-LID-Out     4.97     .186 1985.0716_14:00  265.42  n/a     .000
03329>      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1319E+01  m3, N-Ovf=   87, TotDurOvf=  153.hrs}
03330> R0085:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03331>     CONTINUOUS STANDHYD   5.0 01:W4            8.18     .260 1985.0716_14:00  281.65 .503     .000
03332>       [XIMP=.57:TIMP=.67]
03333>       [LOSS= 2 :CN= 71.0]
03334>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03335>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03336>       [IaRECimp=   1.50: IaRECper=   6.00]
03337>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03338> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
03339> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03340> # Total Volume provided by LID  - 131 m³
03341> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03342> R0085:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03343>     ROUTE RESERVOIR ->    5.0 02:W4            8.18     .260 1985.0716_14:00  281.65  n/a     .000
03344>                 out <=    5.0 01:W4-LID        1.73     .001 1985.0222_ 9:05  281.65  n/a     .000
03345>           overflow <=    5.0 03:W4-LID-Out     6.45     .257 1985.0716_14:00  281.65  n/a     .000
03346>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1816E+01  m3, N-Ovf=   81, TotDurOvf=  153.hrs}
03347> R0085:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03348>     ADD HYD               5.0 02:W1            8.92     .320 1985.0716_14:00  313.70  n/a     .000
03349>                       +     5.0 02:W2           10.75     .379 1985.0716_14:00  309.67  n/a     .000
03350>                       +     5.0 02:W3            6.30     .188 1985.0716_14:00  265.42  n/a     .000
03351>                       +     5.0 02:W4            8.18     .260 1985.0716_14:00  281.65  n/a     .000
03352>                   SUM=     5.0 01:BCD-PH3       34.15    1.147 1985.0716_14:00  295.85  n/a     .000
03353> R0085:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03354>     ADD HYD               5.0 02:W1-LID-Out     6.81     .317 1985.0716_14:00  313.70  n/a     .000
03355>                       +     5.0 02:W2-LID-Out     8.34     .375 1985.0716_14:00  309.67  n/a     .000
03356>                       +     5.0 02:W3-LID-Out     4.97     .186 1985.0716_14:00  265.42  n/a     .000
03357>                       +     5.0 02:W4-LID-Out     6.45     .257 1985.0716_14:00  281.65  n/a     .000
03358>                   SUM=     5.0 01:BCD-PH3-LI    26.56    1.134 1985.0716_14:00  295.62  n/a     .000
03359> #*************************************************************************************************************
03360> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
03361> #*************************************************************************************************************
03362> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03363> #*************************************************************************************************************
03364> R0085:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03365>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .413 1985.0716_14:00  392.45 .701     .000
03366>       [XIMP=.66:TIMP=.71]
03367>       [LOSS= 2 :CN=100.0]
03368>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03369>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03370>       [IaRECimp=   1.50: IaRECper=   6.00]
03371>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03372> R0085:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03373>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .494 1985.0716_14:00  390.59 .698     .000
03374>       [XIMP=.65:TIMP=.70]
03375>       [LOSS= 2 :CN=100.0]
03376>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03377>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03378>       [IaRECimp=   1.50: IaRECper=   6.00]
03379>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03380> R0085:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03381>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .291 1985.0716_14:00  377.36 .674     .000
03382>       [XIMP=.53:TIMP=.63]
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03383>       [LOSS= 2 :CN=100.0]
03384>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03385>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03386>       [IaRECimp=   1.50: IaRECper=   6.00]
03387>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03388> R0085:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03389>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .381 1985.0716_14:00  384.89 .687     .000
03390>       [XIMP=.57:TIMP=.67]
03391>       [LOSS= 2 :CN=100.0]
03392>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03393>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03394>       [IaRECimp=   1.50: IaRECper=   6.00]
03395>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03396> R0085:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03397>     ADD HYD               5.0 02:INF-W1         8.92     .413 1985.0716_14:00  392.45  n/a     .000
03398>                     +     5.0 02:INF-W2        10.75     .494 1985.0716_14:00  390.59  n/a     .000
03399>                     +     5.0 02:INF-W3         6.30     .291 1985.0716_14:00  377.36  n/a     .000
03400>                     +     5.0 02:INF-W4         8.18     .381 1985.0716_14:00  384.89  n/a     .000
03401>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.579 1985.0716_14:00  387.27  n/a     .000
03402> ##############################################################################
03403> # CONTINUOUS RAINFALL DATA
03404> ##############################################################################
03405>   ** END OF RUN :   85
03406>
03407> ************************************************************************************************
03408>
03409>
03410>
03411>
03412>
03413>  RUN#:COMMAND#
03414> R0086:C00001-----------------------------------------------------------------------------------------------
03415>      START
03416>       [TZERO =    .00 hrs on 19860101]
03417>       [METOUT=   2    (1=imperial, 2=metric output)]
03418>       [NSTORM=   0 ]
03419>       [NRUN  = 0086 ]
03420> #*************************************************************************************************************
03421> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03422> #*************************************************************************************************************
03423> #  Project Name: Barrhaven Conservancy Development
03424> #  Project Number: 1474
03425> #  Date        : 2021/Oct/18
03426> #  Modeller    : J.Burnett, P.Eng.
03427> #  Updated     : 2022/Dec/13 [LP]
03428> #  Company     : J.F. Sabourin and Associates
03429> #  License #   : 2582634
03430> #*************************************************************************************************************
03431> # Ottawa International Airport (1967 - 2003)
03432> R0086:C00002-----------------------------------------------------------------------------------------------
03433>   *  READ AES DATA
03434>       [Filename  = YOW_1967_2007.123                                          ]
03435>       [Start_date= 1986.0101: End_date= 1986.1231]
03436>       {DT= 60.min: Length= 8040.hrs: WetHrs=  520: DryHrs= 7520: PTOT= 849.40}
03437>       Maximum average rainfall intensities over
03438>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03439>        18.30    17.80    13.57     7.07     4.84     2.89     2.42     1.85     1.31    mm/hr
03440>        18.30    35.60    40.70    42.40    58.10    69.30    87.00    88.60    94.40    mm
03441>       19860729 19860729 19860729 19860729 19860912 19860912 19860912 19860912 19860913  date
03442>       Number of rainfall events per following interevent time
03443>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03444>          178      144      131      104       80       63       53       48       33
03445>       Number of events with at least the following durations
03446>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03447>          177      104       76       24        2        0        0        0        0
03448> R0086:C00003-----------------------------------------------------------------------------------------------
03449>      COMPUTE API
03450>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03451>       {APImax=102.23: APIavg= 25.30: APImin=   .17}
03452> #*************************************************************************************************************
03453> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
03454> #*************************************************************************************************************
03455> R0086:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03456>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .363 1986.0729_15:00  495.15 .583     .000
03457>       [XIMP=.66:TIMP=.71]
03458>       [LOSS= 2 :CN= 71.0]
03459>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03460>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03461>       [IaRECimp=   1.50: IaRECper=   6.00]
03462>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03463> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
03464> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03465> # Total Volume provided by LID  - 179 m³
03466> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03467> R0086:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03468>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .363 1986.0729_15:00  495.15  n/a     .000
03469>                  out <=    5.0 01:W1-LID         1.92     .001 1986.0119_19:30  495.17  n/a     .000
03470>            overflow <=    5.0 03:W1-LID-Out     7.00     .358 1986.0729_15:00  495.15  n/a     .000
03471>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.3464E+01  m3, N-Ovf=  162, TotDurOvf=  203.hrs}
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03472> R0086:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03473>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .433 1986.0729_15:00  489.83 .577     .000
03474>       [XIMP=.65:TIMP=.70]
03475>       [LOSS= 2 :CN= 71.0]
03476>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03477>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03478>       [IaRECimp=   1.50: IaRECper=   6.00]
03479>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03480> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
03481> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03482> # Total Volume provided by LID  - 200 m³
03483> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03484> R0086:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03485>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .433 1986.0729_15:00  489.83  n/a     .000
03486>                   out <=    5.0 01:W2-LID         2.19     .001 1986.0119_19:20  489.82  n/a     .000
03487>             overflow <=    5.0 03:W2-LID-Out     8.56     .427 1986.0729_15:00  489.83  n/a     .000
03488>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.4195E+01  m3, N-Ovf=  171, TotDurOvf=  209.hrs}
03489> R0086:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03490>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .237 1986.0729_15:00  435.04 .512     .000
03491>       [XIMP=.53:TIMP=.63]
03492>       [LOSS= 2 :CN= 71.0]
03493>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03494>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03495>       [IaRECimp=   1.50: IaRECper=   6.00]
03496>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03497> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
03498> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03499> # Total Volume provided by LID  - 96 m³
03500> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03501> R0086:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03502>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .237 1986.0729_15:00  435.04  n/a     .000
03503>                   out <=    5.0 01:W3-LID         1.15     .001 1986.0119_19:20  435.05  n/a     .000
03504>             overflow <=    5.0 03:W3-LID-Out     5.15     .232 1986.0729_15:00  435.04  n/a     .000
03505>      {MxStoUsed=.9598E-02  m3, TotOvfVol=.2240E+01  m3, N-Ovf=  170, TotDurOvf=  215.hrs}
03506> R0086:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03507>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .318 1986.0729_15:00  456.50 .537     .000
03508>       [XIMP=.57:TIMP=.67]
03509>       [LOSS= 2 :CN= 71.0]
03510>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03511>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03512>       [IaRECimp=   1.50: IaRECper=   6.00]
03513>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03514> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
03515> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03516> # Total Volume provided by LID  - 131 m³
03517> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03518> R0086:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03519>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .318 1986.0729_15:00  456.50  n/a     .000
03520>                   out <=    5.0 01:W4-LID         1.52     .001 1986.0119_19:15  456.51  n/a     .000
03521>             overflow <=    5.0 03:W4-LID-Out     6.66     .312 1986.0729_15:00  456.50  n/a     .000
03522>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.3040E+01  m3, N-Ovf=  163, TotDurOvf=  215.hrs}
03523> R0086:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03524>     ADD HYD               5.0 02:W1             8.92     .363 1986.0729_15:00  495.15  n/a     .000
03525>                     +     5.0 02:W2            10.75     .433 1986.0729_15:00  489.83  n/a     .000
03526>                     +     5.0 02:W3             6.30     .237 1986.0729_15:00  435.04  n/a     .000
03527>                     +     5.0 02:W4             8.18     .318 1986.0729_15:00  456.50  n/a     .000
03528>                   SUM=    5.0 01:BCD-PH3       34.15    1.350 1986.0729_15:00  473.13  n/a     .000
03529> R0086:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03530>     ADD HYD               5.0 02:W1-LID-Out     7.00     .358 1986.0729_15:00  495.15  n/a     .000
03531>                     +     5.0 02:W2-LID-Out     8.56     .427 1986.0729_15:00  489.83  n/a     .000
03532>                     +     5.0 02:W3-LID-Out     5.15     .232 1986.0729_15:00  435.04  n/a     .000
03533>                     +     5.0 02:W4-LID-Out     6.66     .312 1986.0729_15:00  456.50  n/a     .000
03534>                   SUM=    5.0 01:BCD-PH3-LI    27.37    1.330 1986.0729_15:00  472.78  n/a     .000
03535> #*************************************************************************************************************
03536> #                    Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
03537> #*************************************************************************************************************
03538> #                   Set infiltration to 0 (CN = 99.99) for water balance analysis
03539> #*************************************************************************************************************
03540> R0086:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03541>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .450 1986.0729_15:00  595.87 .702     .000
03542>       [XIMP=.66:TIMP=.71]
03543>       [LOSS= 2 :CN=100.0]
03544>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03545>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03546>       [IaRECimp=   1.50: IaRECper=   6.00]
03547>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03548> R0086:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03549>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .541 1986.0729_15:00  593.35 .699     .000
03550>       [XIMP=.65:TIMP=.70]
03551>       [LOSS= 2 :CN=100.0]
03552>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03553>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03554>       [IaRECimp=   1.50: IaRECper=   6.00]
03555>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03556> R0086:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03557>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .319 1986.0729_15:00  577.26 .680     .000
03558>       [XIMP=.53:TIMP=.63]
03559>       [LOSS= 2 :CN=100.0]
03560>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
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03561>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03562>       [IaRECimp=   1.50: IaRECper=   6.00]
03563>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03564> R0086:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03565>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .413 1986.0729_15:00  587.46 .692     .000
03566>       [XIMP=.57:TIMP=.67]
03567>       [LOSS= 2 :CN=100.0]
03568>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03569>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03570>       [IaRECimp=   1.50: IaRECper=   6.00]
03571>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03572> R0086:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03573>     ADD HYD               5.0 02:INF-W1         8.92     .450 1986.0729_15:00  595.87  n/a     .000
03574>                     +     5.0 02:INF-W2        10.75     .541 1986.0729_15:00  593.35  n/a     .000
03575>                     +     5.0 02:INF-W3         6.30     .319 1986.0729_15:00  577.26  n/a     .000
03576>                     +     5.0 02:INF-W4         8.18     .413 1986.0729_15:00  587.46  n/a     .000
03577>                  SUM=     5.0 01:INF-BCD-PH    34.15    1.722 1986.0729_15:00  589.63  n/a     .000
03578> ##############################################################################
03579> # CONTINUOUS RAINFALL DATA
03580> ##############################################################################
03581>   ** END OF RUN :   86
03582>
03583> ************************************************************************************************
03584>
03585>
03586>
03587>
03588>
03589>  RUN#:COMMAND#
03590> R0087:C00001-----------------------------------------------------------------------------------------
03591>      START
03592>       [TZERO =    .00 hrs on 19870101]
03593>       [METOUT=   2    (1=imperial, 2=metric output)]
03594>       [NSTORM=   0 ]
03595>       [NRUN  = 0087 ]
03596> #*************************************************************************************************************
03597> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03598> #*************************************************************************************************************
03599> #  Project Name: Barrhaven Conservancy Development
03600> #  Project Number: 1474
03601> #  Date        : 2021/Oct/18
03602> #  Modeller    : J.Burnett, P.Eng.
03603> #  Updated     : 2022/Dec/13 [LP]
03604> #  Company     : J.F. Sabourin and Associates
03605> #  License #   : 2582634
03606> #*************************************************************************************************************
03607> # Ottawa International Airport (1967 - 2003)
03608> R0087:C00002-----------------------------------------------------------------------------------------
03609>   *  READ AES DATA
03610>       [Filename  = YOW_1967_2007.123                                          ]
03611>       [Start_date= 1987.0101: End_date= 1987.1231]
03612>       {DT= 60.min: Length= 7344.hrs: WetHrs=  492: DryHrs= 6852: PTOT= 640.10}
03613>       Maximum average rainfall intensities over
03614>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03615>        20.00    13.90    14.03     7.05     4.87     2.46     1.84     1.40      .93    mm/hr
03616>        20.00    27.80    42.10    42.30    58.40    59.00    66.40    67.00    67.00    mm
03617>       19870724 19870724 19870724 19870724 19870724 19870725 19870725 19870726 19870726  date
03618>       Number of rainfall events per following interevent time
03619>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03620>          180      147      128       93       74       55       49       41       28
03621>       Number of events with at least the following durations
03622>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03623>          179       94       60       20        3        0        0        0        0
03624> R0087:C00003-----------------------------------------------------------------------------------------
03625>      COMPUTE API
03626>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03627>       {APImax= 75.76: APIavg= 21.41: APImin=  1.18}
03628> #*************************************************************************************************************
03629> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
03630> #*************************************************************************************************************
03631> R0087:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03632>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .339 1987.0724_13:00  332.97 .520     .000
03633>       [XIMP=.66:TIMP=.71]
03634>       [LOSS= 2 :CN= 71.0]
03635>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03636>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03637>       [IaRECimp=   1.50: IaRECper=   6.00]
03638>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03639> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
03640> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03641> # Total Volume provided by LID  - 179 m³
03642> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03643> R0087:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03644>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .339 1987.0724_13:00  332.97  n/a     .000
03645>                  out <=   5.0 01:W1-LID         2.53     .001 1987.0326_15:50  332.97  n/a     .000
03646>              overflow <=  5.0 03:W1-LID-Out     6.39     .335 1987.0724_13:00  332.97  n/a     .000
03647>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2126E+01  m3, N-Ovf=  124, TotDurOvf=  159.hrs}
03648> R0087:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03649>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .402 1987.0724_13:00  328.89 .514     .000
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03650>       [XIMP=.65:TIMP=.70]
03651>       [LOSS= 2 :CN= 71.0]
03652>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03653>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03654>       [IaRECimp=   1.50: IaRECper=   6.00]
03655>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03656> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
03657> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03658> # Total Volume provided by LID  - 200 m³
03659> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03660> R0087:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03661>     ROUTE RESERVOIR ->    5.0 02:W2           10.75     .402 1987.0724_13:00  328.89  n/a     .000
03662>                   out <=    5.0 01:W2-LID         2.88     .001 1987.0326_15:10  328.89  n/a     .000
03663>              overflow <=    5.0 03:W2-LID-Out     7.87     .397 1987.0724_13:00  328.89  n/a     .000
03664>       {MxStoUsed=.2000E-01  m3, TotOvfVol=.2588E+01  m3, N-Ovf=  127, TotDurOvf=  165.hrs}
03665> R0087:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03666>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .201 1987.0724_13:00  285.09 .445     .000
03667>       [XIMP=.53:TIMP=.63]
03668>       [LOSS= 2 :CN= 71.0]
03669>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03670>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03671>       [IaRECimp=   1.50: IaRECper=   6.00]
03672>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03673> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
03674> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03675> # Total Volume provided by LID  - 96 m³
03676> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03677> R0087:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03678>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .201 1987.0724_13:00  285.09  n/a     .000
03679>                   out <=    5.0 01:W3-LID         1.56     .001 1987.0326_15:05  285.10  n/a     .000
03680>              overflow <=    5.0 03:W3-LID-Out     4.74     .198 1987.0724_13:00  285.09  n/a     .000
03681>       {MxStoUsed=.9598E-02  m3, TotOvfVol=.1352E+01  m3, N-Ovf=  141, TotDurOvf=  169.hrs}
03682> R0087:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03683>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .277 1987.0724_13:00  301.51 .471     .000
03684>       [XIMP=.57:TIMP=.67]
03685>       [LOSS= 2 :CN= 71.0]
03686>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03687>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03688>       [IaRECimp=   1.50: IaRECper=   6.00]
03689>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03690> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
03691> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03692> # Total Volume provided by LID  - 131 m³
03693> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03694> R0087:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03695>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .277 1987.0724_13:00  301.51  n/a     .000
03696>                   out <=    5.0 01:W4-LID         2.04     .001 1987.0326_15:00  301.51  n/a     .000
03697>              overflow <=    5.0 03:W4-LID-Out     6.14     .273 1987.0724_13:00  301.51  n/a     .000
03698>       {MxStoUsed=.1309E-01  m3, TotOvfVol=.1852E+01  m3, N-Ovf=  134, TotDurOvf=  170.hrs}
03699> R0087:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03700>     ADD HYD               5.0 02:W1             8.92     .339 1987.0724_13:00  332.97  n/a     .000
03701>                     +     5.0 02:W2            10.75     .402 1987.0724_13:00  328.89  n/a     .000
03702>                     +     5.0 02:W3             6.30     .201 1987.0724_13:00  285.09  n/a     .000
03703>                     +     5.0 02:W4             8.18     .277 1987.0724_13:00  301.51  n/a     .000
03704>                   SUM=    5.0 01:BCD-PH3       34.15    1.219 1987.0724_13:00  315.32  n/a     .000
03705> R0087:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03706>     ADD HYD               5.0 02:W1-LID-Out     6.39     .335 1987.0724_13:00  332.97  n/a     .000
03707>                     +     5.0 02:W2-LID-Out     7.87     .397 1987.0724_13:00  328.89  n/a     .000
03708>                     +     5.0 02:W3-LID-Out     4.74     .198 1987.0724_13:00  285.09  n/a     .000
03709>                     +     5.0 02:W4-LID-Out     6.14     .273 1987.0724_13:00  301.51  n/a     .000
03710>                   SUM=    5.0 01:BCD-PH3-LI    25.14    1.203 1987.0724_13:00  314.98  n/a     .000
03711> #*************************************************************************************************
03712> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
03713> #*************************************************************************************************
03714> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03715> #*************************************************************************************************
03716> R0087:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03717>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .434 1987.0724_13:00  399.53 .624     .000
03718>       [XIMP=.66:TIMP=.71]
03719>       [LOSS= 2 :CN=100.0]
03720>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03721>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03722>       [IaRECimp=   1.50: IaRECper=   6.00]
03723>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03724> R0087:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03725>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .518 1987.0724_13:00  397.23 .621     .000
03726>       [XIMP=.65:TIMP=.70]
03727>       [LOSS= 2 :CN=100.0]
03728>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03729>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03730>       [IaRECimp=   1.50: IaRECper=   6.00]
03731>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03732> R0087:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03733>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .305 1987.0724_13:00  381.20 .596     .000
03734>       [XIMP=.53:TIMP=.63]
03735>       [LOSS= 2 :CN=100.0]
03736>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03737>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03738>       [IaRECimp=   1.50: IaRECper=   6.00]
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03739>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03740> R0087:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03741>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .400 1987.0724_13:00  390.61 .610     .000
03742>       [XIMP=.57:TIMP=.67]
03743>       [LOSS= 2 :CN=100.0]
03744>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03745>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03746>       [IaRECimp=   1.50: IaRECper=   6.00]
03747>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03748> R0087:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03749>     ADD HYD               5.0 02:INF-W1         8.92     .434 1987.0724_13:00  399.53  n/a     .000
03750>                       +     5.0 02:INF-W2        10.75     .518 1987.0724_13:00  397.23  n/a     .000
03751>                       +     5.0 02:INF-W3         6.30     .305 1987.0724_13:00  381.20  n/a     .000
03752>                       +     5.0 02:INF-W4         8.18     .400 1987.0724_13:00  390.61  n/a     .000
03753>                   SUM=      5.0 01:INF-BCD-PH    34.15    1.657 1987.0724_13:00  393.29  n/a     .000
03754> ##############################################################################
03755> # CONTINUOUS RAINFALL DATA
03756> ##############################################################################
03757>   ** END OF RUN :   87
03758>
03759> ********************************************************************************************************
03760>
03761>
03762>
03763>
03764>
03765>  RUN#:COMMAND#
03766> R0088:C00001-----------------------------------------------------------------------------------------
03767>      START
03768>       [TZERO =    .00 hrs on 19880101]
03769>       [METOUT=   2    (1=imperial, 2=metric output)]
03770>       [NSTORM=   0 ]
03771>       [NRUN  = 0088 ]
03772> #*****************************************************************************************************************
03773> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03774> #*****************************************************************************************************************
03775> #  Project Name: Barrhaven Conservancy Development
03776> #  Project Number: 1474
03777> #  Date        : 2021/Oct/18
03778> #  Modeller    : J.Burnett, P.Eng.
03779> #  Updated     : 2022/Dec/13 [LP]
03780> #  Company     : J.F. Sabourin and Associates
03781> #  License #   : 2582634
03782> #*****************************************************************************************************************
03783> # Ottawa International Airport (1967 - 2003)
03784> R0088:C00002-----------------------------------------------------------------------------------------
03785>   *  READ AES DATA
03786>       [Filename  = YOW_1967_2007.123                                        ]
03787>       [Start_date= 1988.0101: End_date= 1988.1230]
03788>       {DT= 60.min: Length= 8760.hrs: WetHrs=  487: DryHrs= 8273: PTOT= 643.80}
03789>       Maximum average rainfall intensities over
03790>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03791>        25.50    18.20    12.77     7.37     3.78     1.91     1.27      .95      .94    mm/hr
03792>        25.50    36.40    38.30    44.20    45.40    45.80    45.80    45.80    67.40    mm
03793>       19880917 19880726 19880625 19880625 19880625 19880625 19880625 19880626 19880625  date
03794>       Number of rainfall events per following interevent time
03795>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03796>          165      130      109       80       66       56       49       42       26
03797>       Number of events with at least the following durations
03798>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03799>          164      102       71       20        5        0        0        0        0
03800> R0088:C00003-----------------------------------------------------------------------------------------
03801>      COMPUTE API
03802>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03803>       {APImax= 66.04: APIavg= 18.06: APImin=   .03}
03804> #*****************************************************************************************************************
03805> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
03806> #*****************************************************************************************************************
03807> R0088:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03808>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .444 1988.0726_13:00  334.51 .520     .000
03809>       [XIMP=.66:TIMP=.71]
03810>       [LOSS= 2 :CN= 71.0]
03811>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03812>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03813>       [IaRECimp=   1.50: IaRECper=   6.00]
03814>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03815> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
03816> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03817> # Total Volume provided by LID  - 179 m³
03818> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03819> R0088:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03820>     ROUTE RESERVOIR ->     5.0 02:W1             8.92     .444 1988.0726_13:00  334.51  n/a     .000
03821>                   out <=     5.0 01:W1-LID         2.53     .001 1988.0117_22:50  334.52  n/a     .000
03822>              overflow <=     5.0 03:W1-LID-Out     6.39     .438 1988.0726_13:00  334.51  n/a     .000
03823>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.2136E+01  m3, N-Ovf=  121, TotDurOvf=  161.hrs}
03824> R0088:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03825>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .527 1988.0726_13:00  330.37 .513     .000
03826>       [XIMP=.65:TIMP=.70]
03827>       [LOSS= 2 :CN= 71.0]
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03828>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03829>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03830>       [IaRECimp=   1.50: IaRECper=   6.00]
03831>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03832> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
03833> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03834> # Total Volume provided by LID  - 200 m³
03835> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03836> R0088:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03837>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .527 1988.0726_13:00  330.37  n/a     .000
03838>                   out <=    5.0 01:W2-LID         2.88     .001 1988.0117_22:35  330.37  n/a     .000
03839>              overflow <=    5.0 03:W2-LID-Out     7.87     .519 1988.0726_13:00  330.37  n/a     .000
03840>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.2599E+01  m3, N-Ovf=  130, TotDurOvf=  168.hrs}
03841> R0088:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03842>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .274 1988.0726_13:00  285.65 .444     .000
03843>       [XIMP=.53:TIMP=.63]
03844>       [LOSS= 2 :CN= 71.0]
03845>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03846>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03847>       [IaRECimp=   1.50: IaRECper=   6.00]
03848>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03849> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
03850> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03851> # Total Volume provided by LID  - 96 m³
03852> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03853> R0088:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03854>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .274 1988.0726_13:00  285.65  n/a     .000
03855>                   out <=    5.0 01:W3-LID         1.56     .001 1988.0117_22:30  285.66  n/a     .000
03856>              overflow <=    5.0 03:W3-LID-Out     4.74     .268 1988.0726_13:00  285.65  n/a     .000
03857>      {MxStoUsed=.9595E-02  m3, TotOvfVol=.1353E+01  m3, N-Ovf=  127, TotDurOvf=  170.hrs}
03858> R0088:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03859>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .375 1988.0726_13:00  302.40 .470     .000
03860>       [XIMP=.57:TIMP=.67]
03861>       [LOSS= 2 :CN= 71.0]
03862>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03863>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03864>       [IaRECimp=   1.50: IaRECper=   6.00]
03865>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03866> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
03867> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03868> # Total Volume provided by LID  - 131 m³
03869> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03870> R0088:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03871>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .375 1988.0726_13:00  302.40  n/a     .000
03872>                   out <=    5.0 01:W4-LID         2.04     .001 1988.0117_22:30  302.40  n/a     .000
03873>              overflow <=    5.0 03:W4-LID-Out     6.14     .367 1988.0726_13:00  302.40  n/a     .000
03874>      {MxStoUsed=.1308E-01  m3, TotOvfVol=.1855E+01  m3, N-Ovf=  122, TotDurOvf=  170.hrs}
03875> R0088:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03876>     ADD HYD               5.0 02:W1             8.92     .444 1988.0726_13:00  334.51  n/a     .000
03877>                       +     5.0 02:W2            10.75     .527 1988.0726_13:00  330.37  n/a     .000
03878>                       +     5.0 02:W3             6.30     .274 1988.0726_13:00  285.65  n/a     .000
03879>                       +     5.0 02:W4             8.18     .375 1988.0726_13:00  302.40  n/a     .000
03880>                    SUM=     5.0 01:BCD-PH3       34.15    1.619 1988.0726_13:00  316.50  n/a     .000
03881> R0088:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03882>     ADD HYD               5.0 02:W1-LID-Out     6.39     .438 1988.0726_13:00  334.51  n/a     .000
03883>                       +     5.0 02:W2-LID-Out     7.87     .519 1988.0726_13:00  330.37  n/a     .000
03884>                       +     5.0 02:W3-LID-Out     4.74     .268 1988.0726_13:00  285.65  n/a     .000
03885>                       +     5.0 02:W4-LID-Out     6.14     .367 1988.0726_13:00  302.40  n/a     .000
03886>                    SUM=     5.0 01:BCD-PH3-LI    25.13    1.591 1988.0726_13:00  316.16  n/a     .000
03887> #*************************************************************************************************************
03888> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
03889> #*************************************************************************************************************
03890> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03891> #*************************************************************************************************************
03892> R0088:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03893>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .583 1988.0726_13:00  406.13 .631     .000
03894>       [XIMP=.66:TIMP=.71]
03895>       [LOSS= 2 :CN=100.0]
03896>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03897>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03898>       [IaRECimp=   1.50: IaRECper=   6.00]
03899>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03900> R0088:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03901>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .698 1988.0726_13:00  403.95 .627     .000
03902>       [XIMP=.65:TIMP=.70]
03903>       [LOSS= 2 :CN=100.0]
03904>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03905>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
03906>       [IaRECimp=   1.50: IaRECper=   6.00]
03907>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03908> R0088:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03909>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .407 1988.0726_13:00  388.00 .603     .000
03910>       [XIMP=.53:TIMP=.63]
03911>       [LOSS= 2 :CN=100.0]
03912>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03913>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
03914>       [IaRECimp=   1.50: IaRECper=   6.00]
03915>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03916> R0088:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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03917>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .531 1988.0726_13:00  396.98 .617     .000
03918>       [XIMP=.57:TIMP=.67]
03919>       [LOSS= 2 :CN=100.0]
03920>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03921>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
03922>       [IaRECimp=   1.50: IaRECper=   6.00]
03923>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
03924> R0088:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03925>     ADD HYD               5.0 02:INF-W1         8.92     .583 1988.0726_13:00  406.13  n/a     .000
03926>                     +     5.0 02:INF-W2        10.75     .698 1988.0726_13:00  403.95  n/a     .000
03927>                     +     5.0 02:INF-W3         6.30     .407 1988.0726_13:00  388.00  n/a     .000
03928>                     +     5.0 02:INF-W4         8.18     .531 1988.0726_13:00  396.98  n/a     .000
03929>                   SUM=    5.0 01:INF-BCD-PH    34.15    2.219 1988.0726_13:00  399.91  n/a     .000
03930> ################################################################################
03931> # CONTINUOUS RAINFALL DATA
03932> ################################################################################
03933>   ** END OF RUN :   88
03934>
03935> ****************************************************************************************************
03936>
03937>
03938>
03939>
03940>
03941>  RUN#:COMMAND#
03942> R0089:C00001-----------------------------------------------------------------------------------------
03943>      START
03944>       [TZERO =    .00 hrs on 19890101]
03945>       [METOUT=   2    (1=imperial, 2=metric output)]
03946>       [NSTORM=   0 ]
03947>       [NRUN  = 0089 ]
03948> #*********************************************************************************************************************
03949> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03950> #*********************************************************************************************************************
03951> #  Project Name: Barrhaven Conservancy Development
03952> #  Project Number: 1474
03953> #  Date        : 2021/Oct/18
03954> #  Modeller    : J.Burnett, P.Eng.
03955> #  Updated     : 2022/Dec/13 [LP]
03956> #  Company     : J.F. Sabourin and Associates
03957> #  License #   : 2582634
03958> #*********************************************************************************************************************
03959> # Ottawa International Airport (1967 - 2003)
03960> R0089:C00002-----------------------------------------------------------------------------------------
03961>   *  READ AES DATA
03962>       [Filename  = YOW_1967_2007.123                                        ]
03963>       [Start_date= 1989.0101: End_date= 1989.1231]
03964>       {DT= 60.min: Length= 8040.hrs: WetHrs=  422: DryHrs= 7618: PTOT= 523.20}
03965>       Maximum average rainfall intensities over
03966>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03967>        22.70    12.60     8.93     5.75     3.03     1.69     1.14      .86      .59    mm/hr
03968>        22.70    25.20    26.80    34.50    36.30    40.60    40.90    41.30    42.50    mm
03969>       19890727 19890727 19890727 19890727 19890727 19891020 19891021 19891021 19891022  date
03970>       Number of rainfall events per following interevent time
03971>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03972>          151      125      108       89       67       53       42       37       29
03973>       Number of events with at least the following durations
03974>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03975>          150       81       52       19        5        0        0        0        0
03976> R0089:C00003-----------------------------------------------------------------------------------------
03977>      COMPUTE API
03978>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03979>       {APImax= 55.10: APIavg= 16.03: APImin=   .02}
03980> #*********************************************************************************************************************
03981> #                    Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
03982> #*********************************************************************************************************************
03983> R0089:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03984>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .401 1989.0727_15:00  267.84 .512     .000
03985>       [XIMP=.66:TIMP=.71]
03986>       [LOSS= 2 :CN= 71.0]
03987>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03988>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
03989>       [IaRECimp=   1.50: IaRECper=   6.00]
03990>       [SMIN= 41.38: SMAX=275.84: SK= .030]
03991> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
03992> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03993> # Total Volume provided by LID  - 179 m³
03994> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03995> R0089:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03996>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .401 1989.0727_15:00  267.84  n/a     .000
03997>                  out <=    5.0 01:W1-LID         2.58     .001 1989.0325_13:35  267.84  n/a     .000
03998>              overflow <=    5.0 03:W1-LID-Out     6.34     .395 1989.0727_15:00  267.84  n/a     .000
03999>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.1699E+01  m3, N-Ovf=   95, TotDurOvf=  152.hrs}
04000> R0089:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04001>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .472 1989.0727_15:00  264.35 .505     .000
04002>       [XIMP=.65:TIMP=.70]
04003>       [LOSS= 2 :CN= 71.0]
04004>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04005>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
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04006>       [IaRECimp=   1.50: IaRECper=   6.00]
04007>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04008> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
04009> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04010> # Total Volume provided by LID  - 200 m³
04011> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04012> R0089:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04013>     ROUTE RESERVOIR ->    5.0 02:W2           10.75     .472 1989.0727_15:00  264.35  n/a     .000
04014>                 out <=    5.0 01:W2-LID         2.95     .001 1989.0325_13:25  264.35  n/a     .000
04015>             overflow <=    5.0 03:W2-LID-Out     7.80     .466 1989.0727_15:00  264.35  n/a     .000
04016>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2063E+01  m3, N-Ovf=   94, TotDurOvf=  157.hrs}
04017> R0089:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04018>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .245 1989.0727_15:00  226.07 .432     .000
04019>       [XIMP=.53:TIMP=.63]
04020>       [LOSS= 2 :CN= 71.0]
04021>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04022>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04023>       [IaRECimp=   1.50: IaRECper=   6.00]
04024>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04025> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
04026> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04027> # Total Volume provided by LID  - 96 m³
04028> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04029> R0089:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04030>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .245 1989.0727_15:00  226.07  n/a     .000
04031>                 out <=    5.0 01:W3-LID         1.62     .001 1989.0325_13:25  226.07  n/a     .000
04032>             overflow <=    5.0 03:W3-LID-Out     4.68     .240 1989.0727_15:00  226.07  n/a     .000
04033>      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1059E+01  m3, N-Ovf=   97, TotDurOvf=  158.hrs}
04034> R0089:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04035>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .335 1989.0727_15:00  240.09 .459     .000
04036>       [XIMP=.57:TIMP=.67]
04037>       [LOSS= 2 :CN= 71.0]
04038>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04039>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04040>       [IaRECimp=   1.50: IaRECper=   6.00]
04041>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04042> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
04043> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04044> # Total Volume provided by LID  - 131 m³
04045> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04046> R0089:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04047>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .335 1989.0727_15:00  240.09  n/a     .000
04048>                 out <=    5.0 01:W4-LID         2.11     .001 1989.0325_13:25  240.09  n/a     .000
04049>             overflow <=    5.0 03:W4-LID-Out     6.07     .328 1989.0727_15:00  240.09  n/a     .000
04050>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1458E+01  m3, N-Ovf=  108, TotDurOvf=  159.hrs}
04051> R0089:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04052>     ADD HYD               5.0 02:W1             8.92     .401 1989.0727_15:00  267.84  n/a     .000
04053>                     +     5.0 02:W2            10.75     .472 1989.0727_15:00  264.35  n/a     .000
04054>                     +     5.0 02:W3             6.30     .245 1989.0727_15:00  226.07  n/a     .000
04055>                     +     5.0 02:W4             8.18     .335 1989.0727_15:00  240.09  n/a     .000
04056>                   SUM=    5.0 01:BCD-PH3       34.15    1.452 1989.0727_15:00  252.39  n/a     .000
04057> R0089:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04058>     ADD HYD               5.0 02:W1-LID-Out     6.34     .395 1989.0727_15:00  267.84  n/a     .000
04059>                     +     5.0 02:W2-LID-Out     7.80     .466 1989.0727_15:00  264.35  n/a     .000
04060>                     +     5.0 02:W3-LID-Out     4.68     .240 1989.0727_15:00  226.07  n/a     .000
04061>                     +     5.0 02:W4-LID-Out     6.07     .328 1989.0727_15:00  240.09  n/a     .000
04062>                   SUM=    5.0 01:BCD-PH3-LI    24.90    1.429 1989.0727_15:00  252.12  n/a     .000
04063> #*****************************************************************************************************
04064> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
04065> #*****************************************************************************************************
04066> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
04067> #*****************************************************************************************************
04068> R0089:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04069>     CONTINUOUS STANDHYD   5.0 01:INF-W1          8.92     .535 1989.0727_15:00  328.10 .627     .000
04070>       [XIMP=.66:TIMP=.71]
04071>       [LOSS= 2 :CN=100.0]
04072>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04073>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04074>       [IaRECimp=   1.50: IaRECper=   6.00]
04075>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04076> R0089:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04077>     CONTINUOUS STANDHYD   5.0 01:INF-W2         10.75     .642 1989.0727_15:00  326.22 .624     .000
04078>       [XIMP=.65:TIMP=.70]
04079>       [LOSS= 2 :CN=100.0]
04080>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04081>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04082>       [IaRECimp=   1.50: IaRECper=   6.00]
04083>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04084> R0089:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04085>     CONTINUOUS STANDHYD   5.0 01:INF-W3          6.30     .376 1989.0727_15:00  312.77 .598     .000
04086>       [XIMP=.53:TIMP=.63]
04087>       [LOSS= 2 :CN=100.0]
04088>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04089>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04090>       [IaRECimp=   1.50: IaRECper=   6.00]
04091>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04092> R0089:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04093>     CONTINUOUS STANDHYD   5.0 01:INF-W4          8.18     .489 1989.0727_15:00  320.35 .612     .000
04094>       [XIMP=.57:TIMP=.67]
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04095>       [LOSS= 2 :CN=100.0]
04096>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04097>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04098>       [IaRECimp=   1.50: IaRECper=   6.00]
04099>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04100> R0089:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04101>     ADD HYD               5.0 02:INF-W1         8.92     .535 1989.0727_15:00  328.10  n/a     .000
04102>                     +     5.0 02:INF-W2        10.75     .642 1989.0727_15:00  326.22  n/a     .000
04103>                     +     5.0 02:INF-W3         6.30     .376 1989.0727_15:00  312.76  n/a     .000
04104>                     +     5.0 02:INF-W4         8.18     .489 1989.0727_15:00  320.35  n/a     .000
04105>                   SUM=    5.0 01:INF-BCD-PH    34.15    2.043 1989.0727_15:00  322.82  n/a     .000
04106> ###############################################################################
04107> # CONTINUOUS RAINFALL DATA
04108> ###############################################################################
04109>   ** END OF RUN :   89
04110>
04111> ********************************************************************************************************
04112>
04113>
04114>
04115>
04116>
04117>  RUN#:COMMAND#
04118> R0090:C00001-----------------------------------------------------------------------------------------
04119>      START
04120>       [TZERO =    .00 hrs on 19900101]
04121>       [METOUT=   2    (1=imperial, 2=metric output)]
04122>       [NSTORM=   0 ]
04123>       [NRUN  = 0090 ]
04124> #*****************************************************************************************************************
04125> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
04126> #*****************************************************************************************************************
04127> #  Project Name: Barrhaven Conservancy Development
04128> #  Project Number: 1474
04129> #  Date        : 2021/Oct/18
04130> #  Modeller    : J.Burnett, P.Eng.
04131> #  Updated     : 2022/Dec/13 [LP]
04132> #  Company     : J.F. Sabourin and Associates
04133> #  License #   : 2582634
04134> #*****************************************************************************************************************
04135> # Ottawa International Airport (1967 - 2003)
04136> R0090:C00002-----------------------------------------------------------------------------------------
04137>   *  READ AES DATA
04138>       [Filename  = YOW_1967_2007.123                                          ]
04139>       [Start_date= 1990.0101: End_date= 1990.1231]
04140>       {DT= 60.min: Length= 7344.hrs: WetHrs=  618: DryHrs= 6726: PTOT= 727.80}
04141>       Maximum average rainfall intensities over
04142>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04143>        20.60    12.25     9.60     5.58     4.43     2.25     1.50     1.23     1.06    mm/hr
04144>        20.60    24.50    28.80    33.50    53.20    54.00    54.00    59.00    76.60    mm
04145>       19900720 19900720 19900828 19900828 19900720 19900720 19900720 19900722 19900723  date
04146>       Number of rainfall events per following interevent time
04147>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04148>          204      156      141      107       84       66       56       47       33
04149>       Number of events with at least the following durations
04150>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04151>          203      116       75       31        6        1        0        0        0
04152> R0090:C00003-----------------------------------------------------------------------------------------
04153>      COMPUTE API
04154>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
04155>       {APImax= 75.10: APIavg= 23.47: APImin=  3.10}
04156> #*****************************************************************************************************************
04157> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
04158> #*****************************************************************************************************************
04159> R0090:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04160>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .359 1990.0720_ 5:00  387.16 .532     .000
04161>       [XIMP=.66:TIMP=.71]
04162>       [LOSS= 2 :CN= 71.0]
04163>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04164>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04165>       [IaRECimp=   1.50: IaRECper=   6.00]
04166>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04167> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
04168> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04169> # Total Volume provided by LID  - 179 m³
04170> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04171> R0090:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04172>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .359 1990.0720_ 5:00  387.16  n/a     .000
04173>                   out <=    5.0 01:W1-LID         2.33     .001 1990.0312_17:15  387.18  n/a     .000
04174>              overflow <=    5.0 03:W1-LID-Out     6.59     .355 1990.0720_ 5:00  387.16  n/a     .000
04175>       {MxStoUsed=.1789E-01  m3, TotOvfVol=.2550E+01  m3, N-Ovf=  130, TotDurOvf=  225.hrs}
04176> R0090:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04177>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .427 1990.0720_ 5:00  382.52 .526     .000
04178>       [XIMP=.65:TIMP=.70]
04179>       [LOSS= 2 :CN= 71.0]
04180>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04181>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04182>       [IaRECimp=   1.50: IaRECper=   6.00]
04183>       [SMIN= 41.38: SMAX=275.84: SK= .030]
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04184> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
04185> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04186> # Total Volume provided by LID  - 200 m³
04187> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04188> R0090:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04189>     ROUTE RESERVOIR ->     5.0 02:W2           10.75     .427 1990.0720_ 5:00  382.52  n/a     .000
04190>                 out <=     5.0 01:W2-LID         2.65     .001 1990.0312_17:10  382.51  n/a     .000
04191>            overflow <=     5.0 03:W2-LID-Out     8.10     .422 1990.0720_ 5:00  382.52  n/a     .000
04192>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.3097E+01  m3, N-Ovf=  122, TotDurOvf=  231.hrs}
04193> R0090:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04194>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .217 1990.0720_ 5:00  332.93 .457     .000
04195>       [XIMP=.53:TIMP=.63]
04196>       [LOSS= 2 :CN= 71.0]
04197>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04198>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04199>       [IaRECimp=   1.50: IaRECper=   6.00]
04200>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04201> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
04202> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04203> # Total Volume provided by LID  - 96 m³
04204> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04205> R0090:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04206>     ROUTE RESERVOIR ->     5.0 02:W3             6.30     .217 1990.0720_ 5:00  332.93  n/a     .000
04207>                 out <=     5.0 01:W3-LID         1.43     .001 1990.0312_17:10  332.94  n/a     .000
04208>            overflow <=     5.0 03:W3-LID-Out     4.87     .213 1990.0720_ 5:00  332.93  n/a     .000
04209>      {MxStoUsed=.9597E-02  m3, TotOvfVol=.1621E+01  m3, N-Ovf=  121, TotDurOvf=  234.hrs}
04210> R0090:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04211>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .298 1990.0720_ 5:00  351.63 .483     .000
04212>       [XIMP=.57:TIMP=.67]
04213>       [LOSS= 2 :CN= 71.0]
04214>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04215>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04216>       [IaRECimp=   1.50: IaRECper=   6.00]
04217>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04218> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
04219> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04220> # Total Volume provided by LID  - 131 m³
04221> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04222> R0090:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04223>     ROUTE RESERVOIR ->     5.0 02:W4             8.18     .298 1990.0720_ 5:00  351.63  n/a     .000
04224>                 out <=     5.0 01:W4-LID         1.88     .001 1990.0312_17:10  351.64  n/a     .000
04225>            overflow <=     5.0 03:W4-LID-Out     6.30     .293 1990.0720_ 5:00  351.63  n/a     .000
04226>      {MxStoUsed=.1309E-01  m3, TotOvfVol=.2217E+01  m3, N-Ovf=  124, TotDurOvf=  234.hrs}
04227> R0090:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04228>     ADD HYD               5.0 02:W1             8.92     .359 1990.0720_ 5:00  387.16  n/a     .000
04229>                       +     5.0 02:W2           10.75     .427 1990.0720_ 5:00  382.52  n/a     .000
04230>                       +     5.0 02:W3            6.30     .217 1990.0720_ 5:00  332.93  n/a     .000
04231>                       +     5.0 02:W4            8.18     .298 1990.0720_ 5:00  351.63  n/a     .000
04232>                     SUM=    5.0 01:BCD-PH3      34.15    1.300 1990.0720_ 5:00  367.19  n/a     .000
04233> R0090:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04234>     ADD HYD               5.0 02:W1-LID-Out     6.59     .355 1990.0720_ 5:00  387.16  n/a     .000
04235>                       +     5.0 02:W2-LID-Out     8.10     .422 1990.0720_ 5:00  382.52  n/a     .000
04236>                       +     5.0 02:W3-LID-Out     4.87     .213 1990.0720_ 5:00  332.93  n/a     .000
04237>                       +     5.0 02:W4-LID-Out     6.30     .293 1990.0720_ 5:00  351.63  n/a     .000
04238>                     SUM=    5.0 01:BCD-PH3-LI    25.85    1.283 1990.0720_ 5:00  366.83  n/a     .000
04239> #*************************************************************************************************************
04240> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
04241> #*************************************************************************************************************
04242> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
04243> #*************************************************************************************************************
04244> R0090:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04245>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .482 1990.0720_ 5:00  472.43 .649     .000
04246>       [XIMP=.66:TIMP=.71]
04247>       [LOSS= 2 :CN=100.0]
04248>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04249>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04250>       [IaRECimp=   1.50: IaRECper=   6.00]
04251>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04252> R0090:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04253>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .571 1990.0720_ 5:00  470.12 .646     .000
04254>       [XIMP=.65:TIMP=.70]
04255>       [LOSS= 2 :CN=100.0]
04256>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04257>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04258>       [IaRECimp=   1.50: IaRECper=   6.00]
04259>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04260> R0090:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04261>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .338 1990.0720_ 5:00  454.32 .624     .000
04262>       [XIMP=.53:TIMP=.63]
04263>       [LOSS= 2 :CN=100.0]
04264>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04265>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04266>       [IaRECimp=   1.50: IaRECper=   6.00]
04267>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04268> R0090:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04269>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .440 1990.0720_ 5:00  463.65 .637     .000
04270>       [XIMP=.57:TIMP=.67]
04271>       [LOSS= 2 :CN=100.0]
04272>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
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04273>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04274>       [IaRECimp=   1.50: IaRECper=   6.00]
04275>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04276> R0090:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04277>     ADD HYD               5.0 02:INF-W1         8.92     .482 1990.0720_ 5:00  472.43  n/a     .000
04278>                     +     5.0 02:INF-W2        10.75     .571 1990.0720_ 5:00  470.12  n/a     .000
04279>                     +     5.0 02:INF-W3         6.30     .338 1990.0720_ 5:00  454.32  n/a     .000
04280>                     +     5.0 02:INF-W4         8.18     .440 1990.0720_ 5:00  463.65  n/a     .000
04281>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.831 1990.0720_ 5:00  466.26  n/a     .000
04282> ###############################################################################
04283> # CONTINUOUS RAINFALL DATA
04284> ###############################################################################
04285>   ** END OF RUN :   90
04286>
04287> ********************************************************************************************************
04288>
04289>
04290>
04291>
04292>
04293>  RUN#:COMMAND#
04294> R0091:C00001-----------------------------------------------------------------------------------------------
04295>      START
04296>       [TZERO =    .00 hrs on 19910101]
04297>       [METOUT=   2    (1=imperial, 2=metric output)]
04298>       [NSTORM=   0 ]
04299>       [NRUN  = 0091 ]
04300> #*************************************************************************************************************
04301> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
04302> #*************************************************************************************************************
04303> #  Project Name: Barrhaven Conservancy Development
04304> #  Project Number: 1474
04305> #  Date        : 2021/Oct/18
04306> #  Modeller    : J.Burnett, P.Eng.
04307> #  Updated     : 2022/Dec/13 [LP]
04308> #  Company     : J.F. Sabourin and Associates
04309> #  License #   : 2582634
04310> #*************************************************************************************************************
04311> # Ottawa International Airport (1967 - 2003)
04312> R0091:C00002-----------------------------------------------------------------------------------------------
04313>   *  READ AES DATA
04314>       [Filename  = YOW_1967_2007.123                                          ]
04315>       [Start_date= 1991.0101: End_date= 1991.1231]
04316>       {DT= 60.min: Length= 8040.hrs: WetHrs=  486: DryHrs= 7554: PTOT= 556.00}
04317>       Maximum average rainfall intensities over
04318>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04319>        11.30     9.90     6.87     4.10     2.53     1.72     1.28     1.08      .79    mm/hr
04320>        11.30    19.80    20.60    24.60    30.40    41.20    46.00    51.60    57.00    mm
04321>       19910409 19910409 19910409 19910409 19911016 19910422 19910410 19910410 19910423  date
04322>       Number of rainfall events per following interevent time
04323>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04324>          165      137      127      102       80       63       52       45       38
04325>       Number of events with at least the following durations
04326>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04327>          164       89       56       21        6        1        0        0        0
04328> R0091:C00003-----------------------------------------------------------------------------------------------
04329>      COMPUTE API
04330>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
04331>       {APImax= 72.80: APIavg= 16.88: APImin=   .26}
04332> #*************************************************************************************************************
04333> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
04334> #*************************************************************************************************************
04335> R0091:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04336>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .200 1991.0410_ 3:00  288.10 .518     .000
04337>       [XIMP=.66:TIMP=.71]
04338>       [LOSS= 2 :CN= 71.0]
04339>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04340>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04341>       [IaRECimp=   1.50: IaRECper=   6.00]
04342>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04343> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
04344> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04345> # Total Volume provided by LID  - 179 m³
04346> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04347> R0091:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04348>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .200 1991.0410_ 3:00  288.10  n/a     .000
04349>                  out <=   5.0 01:W1-LID         2.89     .001 1991.0302_ 6:50  288.11  n/a     .000
04350>              overflow <=  5.0 03:W1-LID-Out     6.03     .195 1991.0410_ 3:05  288.10  n/a     .000
04351>       {MxStoUsed=.1790E-01  m3, TotOvfVol=.1737E+01  m3, N-Ovf=  106, TotDurOvf=  185.hrs}
04352> R0091:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04353>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .234 1991.0410_ 3:00  284.38 .511     .000
04354>       [XIMP=.65:TIMP=.70]
04355>       [LOSS= 2 :CN= 71.0]
04356>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04357>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04358>       [IaRECimp=   1.50: IaRECper=   6.00]
04359>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04360> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
04361> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
```

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04362> # Total Volume provided by LID  - 200 m³
04363> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04364> R0091:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04365>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .234 1991.0410_ 3:00  284.38  n/a     .000
04366>                  out <=    5.0 01:W2-LID         3.28     .001 1991.0302_ 6:45  284.37  n/a     .000
04367>             overflow <=    5.0 03:W2-LID-Out     7.47     .229 1991.0410_ 3:05  284.38  n/a     .000
04368>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2124E+01  m3, N-Ovf=  106, TotDurOvf=  191.hrs}
04369> R0091:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04370>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .130 1991.0410_ 3:00  243.73 .438     .000
04371>       [XIMP=.53:TIMP=.63]
04372>       [LOSS= 2 :CN= 71.0]
04373>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04374>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04375>       [IaRECimp=   1.50: IaRECper=   6.00]
04376>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04377> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
04378> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04379> # Total Volume provided by LID  - 96 m³
04380> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04381> R0091:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04382>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .130 1991.0410_ 3:00  243.73  n/a     .000
04383>                  out <=    5.0 01:W3-LID         1.79     .001 1991.0302_ 6:45  243.74  n/a     .000
04384>             overflow <=    5.0 03:W3-LID-Out     4.51     .126 1991.0410_ 3:00  243.73  n/a     .000
04385>      {MxStoUsed=.9596E-02  m3, TotOvfVol=.1099E+01  m3, N-Ovf=  123, TotDurOvf=  194.hrs}
04386> R0091:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04387>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .174 1991.0410_ 3:00  258.64 .465     .000
04388>       [XIMP=.57:TIMP=.67]
04389>       [LOSS= 2 :CN= 71.0]
04390>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04391>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04392>       [IaRECimp=   1.50: IaRECper=   6.00]
04393>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04394> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
04395> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04396> # Total Volume provided by LID  - 131 m³
04397> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04398> R0091:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04399>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .174 1991.0410_ 3:00  258.64  n/a     .000
04400>                  out <=    5.0 01:W4-LID         2.34     .001 1991.0302_ 6:45  258.64  n/a     .000
04401>             overflow <=    5.0 03:W4-LID-Out     5.84     .171 1991.0410_ 3:05  258.64  n/a     .000
04402>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1511E+01  m3, N-Ovf=  111, TotDurOvf=  194.hrs}
04403> R0091:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04404>     ADD HYD               5.0 02:W1             8.92     .200 1991.0410_ 3:00  288.10  n/a     .000
04405>                     +     5.0 02:W2            10.75     .234 1991.0410_ 3:00  284.38  n/a     .000
04406>                     +     5.0 02:W3             6.30     .130 1991.0410_ 3:00  243.73  n/a     .000
04407>                     +     5.0 02:W4             8.18     .174 1991.0410_ 3:00  258.64  n/a     .000
04408>                   SUM=    5.0 01:BCD-PH3       34.15     .738 1991.0410_ 3:00  271.69  n/a     .000
04409> R0091:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04410>     ADD HYD               5.0 02:W1-LID-Out     6.03     .195 1991.0410_ 3:05  288.10  n/a     .000
04411>                     +     5.0 02:W2-LID-Out     7.47     .229 1991.0410_ 3:05  284.38  n/a     .000
04412>                     +     5.0 02:W3-LID-Out     4.51     .126 1991.0410_ 3:00  243.73  n/a     .000
04413>                     +     5.0 02:W4-LID-Out     5.84     .171 1991.0410_ 3:05  258.64  n/a     .000
04414>                   SUM=    5.0 01:BCD-PH3-LI    23.85     .721 1991.0410_ 3:05  271.33  n/a     .000
04415> #*************************************************************************************************************
04416> #                    Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
04417> #*************************************************************************************************************
04418> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
04419> #*************************************************************************************************************
04420> R0091:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04421>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .261 1991.0409_ 1:00  346.97 .624     .000
04422>       [XIMP=.66:TIMP=.71]
04423>       [LOSS= 2 :CN=100.0]
04424>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04425>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04426>       [IaRECimp=   1.50: IaRECper=   6.00]
04427>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04428> R0091:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04429>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .313 1991.0409_ 1:00  344.79 .620     .000
04430>       [XIMP=.65:TIMP=.70]
04431>       [LOSS= 2 :CN=100.0]
04432>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04433>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04434>       [IaRECimp=   1.50: IaRECper=   6.00]
04435>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04436> R0091:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04437>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .185 1991.0409_ 1:00  329.01 .592     .000
04438>       [XIMP=.53:TIMP=.63]
04439>       [LOSS= 2 :CN=100.0]
04440>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04441>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04442>       [IaRECimp=   1.50: IaRECper=   6.00]
04443>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04444> R0091:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04445>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .241 1991.0409_ 1:00  337.77 .608     .000
04446>       [XIMP=.57:TIMP=.67]
04447>       [LOSS= 2 :CN=100.0]
04448>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04449>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04450>       [IaRECimp=   1.50: IaRECper=   6.00]
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04451>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04452> R0091:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04453>     ADD HYD              5.0 02:INF-W1          8.92     .261 1991.0409_ 1:00  346.97  n/a     .000
04454>                    +     5.0 02:INF-W2         10.75     .313 1991.0409_ 1:00  344.79  n/a     .000
04455>                    +     5.0 02:INF-W3          6.30     .185 1991.0409_ 1:00  329.01  n/a     .000
04456>                    +     5.0 02:INF-W4          8.18     .241 1991.0409_ 1:00  337.77  n/a     .000
04457>                  SUM=    5.0 01:INF-BCD-PH     34.15     .999 1991.0409_ 1:00  340.77  n/a     .000
04458> ###############################################################################
04459> # CONTINUOUS RAINFALL DATA
04460> ###############################################################################
04461>   ** END OF RUN :   91
04462>
04463> ************************************************************************************************
04464>
04465>
04466>
04467>
04468>
04469>  RUN#:COMMAND#
04470> R0092:C00001-----------------------------------------------------------------------------------
04471>      START
04472>       [TZERO =    .00 hrs on 19920101]
04473>       [METOUT=   2    (1=imperial, 2=metric output)]
04474>       [NSTORM=   0 ]
04475>       [NRUN  = 0092 ]
04476> #**********************************************************************************************************
04477> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
04478> #**********************************************************************************************************
04479> #  Project Name: Barrhaven Conservancy Development
04480> #  Project Number: 1474
04481> #  Date         : 2021/Oct/18
04482> #  Modeller     : J.Burnett, P.Eng.
04483> #  Updated      : 2022/Dec/13 [LP]
04484> #  Company      : J.F. Sabourin and Associates
04485> #  License #    : 2582634
04486> #**********************************************************************************************************
04487> # Ottawa International Airport (1967 - 2003)
04488> R0092:C00002-----------------------------------------------------------------------------------
04489>   *  READ AES DATA
04490>       [Filename  = YOW_1967_2007.123                                          ]
04491>       [Start_date= 1992.0101: End_date= 1992.1230]
04492>       {DT= 60.min: Length= 8760.hrs: WetHrs=  551: DryHrs= 8209: PTOT= 732.80}
04493>       Maximum average rainfall intensities over
04494>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04495>        31.50    18.00    13.30     7.22     4.14     2.26     1.51     1.51     1.02    mm/hr
04496>        31.50    36.00    39.90    43.30    49.70    54.20    54.20    72.60    73.60    mm
04497>       19920804 19920804 19920804 19920804 19920717 19920718 19920718 19920719 19920720  date
04498>       Number of rainfall events per following interevent time
04499>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04500>          190      151      132      100       84       69       55       47       38
04501>       Number of events with at least the following durations
04502>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04503>          189      109       70       22        5        1        0        0        0
04504> R0092:C00003-----------------------------------------------------------------------------------
04505>      COMPUTE API
04506>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
04507>       {APImax= 97.62: APIavg= 20.33: APImin=  1.07}
04508> #**********************************************************************************************************
04509> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
04510> #**********************************************************************************************************
04511> R0092:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04512>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .613 1992.0804_14:00  400.30 .546     .000
04513>       [XIMP=.66:TIMP=.71]
04514>       [LOSS= 2 :CN= 71.0]
04515>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04516>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04517>       [IaRECimp=   1.50: IaRECper=   6.00]
04518>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04519> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
04520> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04521> # Total Volume provided by LID  - 179 m³
04522> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04523> R0092:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04524>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .613 1992.0804_14:00  400.30  n/a     .000
04525>                  out <=   5.0 01:W1-LID         2.29     .001 1992.0104_21:55  400.31  n/a     .000
04526>              overflow <=  5.0 03:W1-LID-Out     6.63     .601 1992.0804_14:00  400.30  n/a     .000
04527>      {MxStoUsed=.1788E-01  m3, TotOvfVol=.2653E+01  m3, N-Ovf=  118, TotDurOvf=  186.hrs}
04528> R0092:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04529>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .731 1992.0804_14:00  395.59 .540     .000
04530>       [XIMP=.65:TIMP=.70]
04531>       [LOSS= 2 :CN= 71.0]
04532>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04533>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04534>       [IaRECimp=   1.50: IaRECper=   6.00]
04535>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04536> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
04537> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04538> # Total Volume provided by LID  - 200 m³
04539> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
```

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04540> R0092:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04541>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .731 1992.0804_14:00  395.59  n/a     .000
04542>                 out <=    5.0 01:W2-LID         2.60     .001 1992.0104_21:45  395.58  n/a     .000
04543>            overflow <=    5.0 03:W2-LID-Out     8.15     .717 1992.0804_14:00  395.59  n/a     .000
04544>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.3223E+01  m3, N-Ovf=  117, TotDurOvf=  194.hrs}
04545> R0092:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04546>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .398 1992.0804_14:00  345.26 .471     .000
04547>       [XIMP=.53:TIMP=.63]
04548>       [LOSS= 2 :CN= 71.0]
04549>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04550>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04551>       [IaRECimp=   1.50: IaRECper=   6.00]
04552>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04553> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
04554> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04555> # Total Volume provided by LID  - 96 m³
04556> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04557> R0092:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04558>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .398 1992.0804_14:00  345.26  n/a     .000
04559>                 out <=    5.0 01:W3-LID         1.40     .001 1992.0104_21:45  345.27  n/a     .000
04560>            overflow <=    5.0 03:W3-LID-Out     4.90     .386 1992.0804_14:00  345.26  n/a     .000
04561>      {MxStoUsed=.9598E-02  m3, TotOvfVol=.1692E+01  m3, N-Ovf=  136, TotDurOvf=  196.hrs}
04562> R0092:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04563>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .534 1992.0804_14:00  364.21 .497     .000
04564>       [XIMP=.57:TIMP=.67]
04565>       [LOSS= 2 :CN= 71.0]
04566>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04567>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04568>       [IaRECimp=   1.50: IaRECper=   6.00]
04569>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04570> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
04571> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04572> # Total Volume provided by LID  - 131 m³
04573> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04574> R0092:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04575>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .534 1992.0804_14:00  364.21  n/a     .000
04576>                 out <=    5.0 01:W4-LID         1.83     .001 1992.0104_21:45  364.21  n/a     .000
04577>            overflow <=    5.0 03:W4-LID-Out     6.35     .520 1992.0804_14:00  364.21  n/a     .000
04578>      {MxStoUsed=.1308E-01  m3, TotOvfVol=.2311E+01  m3, N-Ovf=  133, TotDurOvf=  197.hrs}
04579> R0092:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04580>     ADD HYD               5.0 02:W1             8.92     .613 1992.0804_14:00  400.30  n/a     .000
04581>                       +     5.0 02:W2            10.75     .731 1992.0804_14:00  395.59  n/a     .000
04582>                       +     5.0 02:W3             6.30     .398 1992.0804_14:00  345.26  n/a     .000
04583>                       +     5.0 02:W4             8.18     .534 1992.0804_14:00  364.21  n/a     .000
04584>                     SUM=    5.0 01:BCD-PH3       34.15    2.277 1992.0804_14:00  380.02  n/a     .000
04585> R0092:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04586>     ADD HYD               5.0 02:W1-LID-Out     6.63     .601 1992.0804_14:00  400.30  n/a     .000
04587>                       +     5.0 02:W2-LID-Out     8.15     .717 1992.0804_14:00  395.59  n/a     .000
04588>                       +     5.0 02:W3-LID-Out     4.90     .386 1992.0804_14:00  345.26  n/a     .000
04589>                       +     5.0 02:W4-LID-Out     6.35     .520 1992.0804_14:00  364.21  n/a     .000
04590>                     SUM=    5.0 01:BCD-PH3-LI    26.02    2.224 1992.0804_14:00  379.65  n/a     .000
04591> #*************************************************************************************************************
04592> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
04593> #*************************************************************************************************************
04594> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
04595> #*************************************************************************************************************
04596> R0092:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04597>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .761 1992.0804_14:00  487.30 .665     .000
04598>       [XIMP=.66:TIMP=.71]
04599>       [LOSS= 2 :CN=100.0]
04600>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04601>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04602>       [IaRECimp=   1.50: IaRECper=   6.00]
04603>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04604> R0092:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04605>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .914 1992.0804_14:00  484.99 .662     .000
04606>       [XIMP=.65:TIMP=.70]
04607>       [LOSS= 2 :CN=100.0]
04608>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04609>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04610>       [IaRECimp=   1.50: IaRECper=   6.00]
04611>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04612> R0092:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04613>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .536 1992.0804_14:00  468.97 .640     .000
04614>       [XIMP=.53:TIMP=.63]
04615>       [LOSS= 2 :CN=100.0]
04616>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04617>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04618>       [IaRECimp=   1.50: IaRECper=   6.00]
04619>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04620> R0092:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04621>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .696 1992.0804_14:00  478.36 .653     .000
04622>       [XIMP=.57:TIMP=.67]
04623>       [LOSS= 2 :CN=100.0]
04624>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04625>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04626>       [IaRECimp=   1.50: IaRECper=   6.00]
04627>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04628> R0092:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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04629>     ADD HYD               5.0 02:INF-W1         8.92     .761 1992.0804_14:00  487.30  n/a     .000
04630>                       +     5.0 02:INF-W2        10.75     .914 1992.0804_14:00  484.99  n/a     .000
04631>                       +     5.0 02:INF-W3         6.30     .536 1992.0804_14:00  468.97  n/a     .000
04632>                       +     5.0 02:INF-W4         8.18     .696 1992.0804_14:00  478.36  n/a     .000
04633>                   SUM=      5.0 01:INF-BCD-PH    34.15    2.907 1992.0804_14:00  481.05  n/a     .000
04634> ###############################################################################
04635> # CONTINUOUS RAINFALL DATA
04636> ###############################################################################
04637>   ** END OF RUN :   92
04638>
04639> *************************************************************************************************
04640>
04641>
04642>
04643>
04644>
04645>  RUN#:COMMAND#
04646> R0093:C00001-------------------------------------------------------------------------------------
04647>      START
04648>       [TZERO =    .00 hrs on 19930101]
04649>       [METOUT=   2    (1=imperial, 2=metric output)]
04650>       [NSTORM=   0 ]
04651>       [NRUN  = 0093 ]
04652> #*************************************************************************************************
04653> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
04654> #*************************************************************************************************
04655> #  Project Name: Barrhaven Conservancy Development
04656> #  Project Number: 1474
04657> #  Date        : 2021/Oct/18
04658> #  Modeller    : J.Burnett, P.Eng.
04659> #  Updated     : 2022/Dec/13 [LP]
04660> #  Company     : J.F. Sabourin and Associates
04661> #  License #   : 2582634
04662> #*************************************************************************************************
04663> # Ottawa International Airport (1967 - 2003)
04664> R0093:C00002-------------------------------------------------------------------------------------
04665>   *  READ AES DATA
04666>       [Filename  = YOW_1967_2007.123                                        ]
04667>       [Start_date= 1993.0101: End_date= 1993.1231]
04668>       {DT= 60.min: Length= 8760.hrs: WetHrs=  585: DryHrs= 8175: PTOT= 721.30}
04669>       Maximum average rainfall intensities over
04670>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04671>        12.60     6.60     4.83     3.72     3.58     2.31     1.61     1.21      .81    mm/hr
04672>        12.60    13.20    14.50    22.30    43.00    55.50    58.10    58.10    58.10    mm
04673>       19930703 19930703 19931127 19931128 19931128 19931128 19931128 19931128 19931129  date
04674>       Number of rainfall events per following interevent time
04675>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04676>          191      154      137      111       91       73       57       48       34
04677>       Number of events with at least the following durations
04678>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04679>          190      110       66       27        7        2        0        0        0
04680> R0093:C00003-------------------------------------------------------------------------------------
04681>      COMPUTE API
04682>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
04683>       {APImax= 66.56: APIavg= 20.01: APImin=   .11}
04684> #*************************************************************************************************
04685> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
04686> #*************************************************************************************************
04687> R0093:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04688>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .205 1993.0703_ 9:00  376.19 .522     .000
04689>       [XIMP=.66:TIMP=.71]
04690>       [LOSS= 2 :CN= 71.0]
04691>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04692>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04693>       [IaRECimp=   1.50: IaRECper=   6.00]
04694>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04695> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
04696> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04697> # Total Volume provided by LID  - 179 m³
04698> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04699> R0093:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04700>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .205 1993.0703_ 9:00  376.19  n/a     .000
04701>                   out <=    5.0 01:W1-LID         2.75     .001 1993.0104_ 1:05  376.20  n/a     .000
04702>              overflow <=    5.0 03:W1-LID-Out     6.17     .202 1993.0703_ 9:00  376.19  n/a     .000
04703>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2321E+01  m3, N-Ovf=  145, TotDurOvf=  223.hrs}
04704> R0093:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04705>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .240 1993.0703_ 9:00  371.40 .515     .000
04706>       [XIMP=.65:TIMP=.70]
04707>       [LOSS= 2 :CN= 71.0]
04708>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04709>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04710>       [IaRECimp=   1.50: IaRECper=   6.00]
04711>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04712> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
04713> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04714> # Total Volume provided by LID  - 200 m³
04715> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04716> R0093:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04717>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .240 1993.0703_ 9:00  371.40  n/a     .000
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04718>               out <=    5.0 01:W2-LID         3.14     .001 1993.0104_ 0:55  371.39  n/a     .000
04719>           overflow <=    5.0 03:W2-LID-Out     7.61     .237 1993.0703_ 9:00  371.40  n/a     .000
04720>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2827E+01  m3, N-Ovf=  156, TotDurOvf=  232.hrs}
04721> R0093:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04722>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .118 1993.0703_ 9:00  319.25 .443     .000
04723>       [XIMP=.53:TIMP=.63]
04724>       [LOSS= 2 :CN= 71.0]
04725>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04726>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04727>       [IaRECimp=   1.50: IaRECper=   6.00]
04728>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04729> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
04730> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04731> # Total Volume provided by LID  - 96 m³
04732> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04733> R0093:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04734>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .118 1993.0703_ 9:00  319.25  n/a     .000
04735>               out <=    5.0 01:W3-LID         1.72     .001 1993.0104_ 0:50  319.25  n/a     .000
04736>           overflow <=    5.0 03:W3-LID-Out     4.58     .117 1993.0703_ 9:00  319.25  n/a     .000
04737>      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1463E+01  m3, N-Ovf=  160, TotDurOvf=  239.hrs}
04738> R0093:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04739>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .164 1993.0703_ 9:00  338.57 .469     .000
04740>       [XIMP=.57:TIMP=.67]
04741>       [LOSS= 2 :CN= 71.0]
04742>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04743>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04744>       [IaRECimp=   1.50: IaRECper=   6.00]
04745>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04746> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
04747> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04748> # Total Volume provided by LID  - 131 m³
04749> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04750> R0093:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04751>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .164 1993.0703_ 9:00  338.57  n/a     .000
04752>               out <=    5.0 01:W4-LID         2.24     .001 1993.0104_ 0:50  338.57  n/a     .000
04753>           overflow <=    5.0 03:W4-LID-Out     5.94     .162 1993.0703_ 9:00  338.57  n/a     .000
04754>      {MxStoUsed=.1309E-01  m3, TotOvfVol=.2011E+01  m3, N-Ovf=  158, TotDurOvf=  240.hrs}
04755> R0093:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04756>     ADD HYD               5.0 02:W1             8.92     .205 1993.0703_ 9:00  376.19  n/a     .000
04757>                     +     5.0 02:W2            10.75     .240 1993.0703_ 9:00  371.40  n/a     .000
04758>                     +     5.0 02:W3             6.30     .118 1993.0703_ 9:00  319.25  n/a     .000
04759>                     +     5.0 02:W4             8.18     .164 1993.0703_ 9:00  338.57  n/a     .000
04760>                   SUM=    5.0 01:BCD-PH3       34.15     .727 1993.0703_ 9:00  355.16  n/a     .000
04761> R0093:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04762>     ADD HYD               5.0 02:W1-LID-Out     6.17     .202 1993.0703_ 9:00  376.19  n/a     .000
04763>                     +     5.0 02:W2-LID-Out     7.61     .237 1993.0703_ 9:00  371.40  n/a     .000
04764>                     +     5.0 02:W3-LID-Out     4.58     .117 1993.0703_ 9:00  319.25  n/a     .000
04765>                     +     5.0 02:W4-LID-Out     5.94     .162 1993.0703_ 9:00  338.57  n/a     .000
04766>                   SUM=    5.0 01:BCD-PH3-LI    24.31     .718 1993.0703_ 9:00  354.76  n/a     .000
04767> #*****************************************************************************************************************
04768> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
04769> #*****************************************************************************************************************
04770> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
04771> #*****************************************************************************************************************
04772> R0093:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04773>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .241 1993.0703_ 9:00  454.07 .630     .000
04774>       [XIMP=.66:TIMP=.71]
04775>       [LOSS= 2 :CN=100.0]
04776>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04777>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04778>       [IaRECimp=   1.50: IaRECper=   6.00]
04779>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04780> R0093:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04781>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .285 1993.0703_ 9:00  451.33 .626     .000
04782>       [XIMP=.65:TIMP=.70]
04783>       [LOSS= 2 :CN=100.0]
04784>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04785>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04786>       [IaRECimp=   1.50: IaRECper=   6.00]
04787>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04788> R0093:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04789>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .164 1993.0703_ 9:00  431.74 .599     .000
04790>       [XIMP=.53:TIMP=.63]
04791>       [LOSS= 2 :CN=100.0]
04792>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04793>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04794>       [IaRECimp=   1.50: IaRECper=   6.00]
04795>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04796> R0093:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04797>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .219 1993.0703_ 9:00  442.84 .614     .000
04798>       [XIMP=.57:TIMP=.67]
04799>       [LOSS= 2 :CN=100.0]
04800>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04801>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04802>       [IaRECimp=   1.50: IaRECper=   6.00]
04803>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04804> R0093:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04805>     ADD HYD               5.0 02:INF-W1         8.92     .241 1993.0703_ 9:00  454.07  n/a     .000
04806>                     +     5.0 02:INF-W2        10.75     .285 1993.0703_ 9:00  451.33  n/a     .000
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04807>                     +     5.0 02:INF-W3         6.30     .164 1993.0703_ 9:00  431.74  n/a     .000
04808>                     +     5.0 02:INF-W4         8.18     .219 1993.0703_ 9:00  442.84  n/a     .000
04809>                   SUM=    5.0 01:INF-BCD-PH    34.15     .909 1993.0703_ 9:00  446.40  n/a     .000
04810> ###############################################################################
04811> # CONTINUOUS RAINFALL DATA
04812> ###############################################################################
04813>   ** END OF RUN :   93
04814>
04815> *********************************************************************************************
04816>
04817>
04818>
04819>
04820>
04821>  RUN#:COMMAND#
04822> R0094:C00001-----------------------------------------------------------------------------------
04823>      START
04824>       [TZERO =    .00 hrs on 19940101]
04825>       [METOUT=   2    (1=imperial, 2=metric output)]
04826>       [NSTORM=   0 ]
04827>       [NRUN  = 0094 ]
04828> #*********************************************************************************************************************
04829> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
04830> #*********************************************************************************************************************
04831> #  Project Name: Barrhaven Conservancy Development
04832> #  Project Number: 1474
04833> #  Date        : 2021/Oct/18
04834> #  Modeller    : J.Burnett, P.Eng.
04835> #  Updated     : 2022/Dec/13 [LP]
04836> #  Company     : J.F. Sabourin and Associates
04837> #  License #   : 2582634
04838> #*********************************************************************************************************************
04839> # Ottawa International Airport (1967 - 2003)
04840> R0094:C00002-----------------------------------------------------------------------------------
04841>   *  READ AES DATA
04842>       [Filename  = YOW_1967_2007.123                                      ]
04843>       [Start_date= 1994.0101: End_date= 1994.1231]
04844>       {DT= 60.min: Length= 8760.hrs: WetHrs=  342: DryHrs= 8418: PTOT= 540.20}
04845>       Maximum average rainfall intensities over
04846>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04847>        22.60    11.90     8.43     5.42     2.92     1.79     1.19      .89     1.15    mm/hr
04848>        22.60    23.80    25.30    32.50    35.00    42.90    42.90    42.90    82.60    mm
04849>       19940629 19940629 19940627 19940625 19940625 19940625 19940626 19940626 19940627  date
04850>       Number of rainfall events per following interevent time
04851>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04852>          138      115      101       79       62       48       39       34       26
04853>       Number of events with at least the following durations
04854>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04855>          137       72       48       12        1        0        0        0        0
04856> R0094:C00003-----------------------------------------------------------------------------------
04857>      COMPUTE API
04858>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
04859>       {APImax= 97.84: APIavg= 15.35: APImin=   .02}
04860> #*********************************************************************************************************************
04861> #                    Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
04862> #*********************************************************************************************************************
04863> R0094:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04864>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .404 1994.0629_13:00  289.36 .536     .000
04865>       [XIMP=.66:TIMP=.71]
04866>       [LOSS= 2 :CN= 71.0]
04867>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04868>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04869>       [IaRECimp=   1.50: IaRECper=   6.00]
04870>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04871> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
04872> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04873> # Total Volume provided by LID  - 179 m³
04874> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04875> R0094:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04876>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .404 1994.0629_13:00  289.36  n/a     .000
04877>                   out <=    5.0 01:W1-LID         2.30     .001 1994.0322_ 1:35  289.37  n/a     .000
04878>             overflow <=    5.0 03:W1-LID-Out     6.62     .399 1994.0629_13:00  289.36  n/a     .000
04879>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.1916E+01  m3, N-Ovf=  105, TotDurOvf=  117.hrs}
04880> R0094:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04881>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .475 1994.0629_13:00  285.81 .529     .000
04882>       [XIMP=.65:TIMP=.70]
04883>       [LOSS= 2 :CN= 71.0]
04884>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04885>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04886>       [IaRECimp=   1.50: IaRECper=   6.00]
04887>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04888> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
04889> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04890> # Total Volume provided by LID  - 200 m³
04891> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04892> R0094:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04893>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .475 1994.0629_13:00  285.81  n/a     .000
04894>                   out <=    5.0 01:W2-LID         2.61     .001 1994.0322_ 1:25  285.81  n/a     .000
04895>             overflow <=    5.0 03:W2-LID-Out     8.14     .468 1994.0629_13:00  285.81  n/a     .000
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04896>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2327E+01  m3, N-Ovf=  112, TotDurOvf=  124.hrs}
04897> R0094:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04898>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .249 1994.0629_13:00  247.94 .459     .000
04899>       [XIMP=.53:TIMP=.63]
04900>       [LOSS= 2 :CN= 71.0]
04901>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04902>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04903>       [IaRECimp=   1.50: IaRECper=   6.00]
04904>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04905> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
04906> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04907> # Total Volume provided by LID  - 96 m³
04908> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04909> R0094:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04910>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .249 1994.0629_13:00  247.94  n/a     .000
04911>                   out <=    5.0 01:W3-LID         1.40     .001 1994.0322_ 1:20  247.94  n/a     .000
04912>              overflow <=    5.0 03:W3-LID-Out     4.90     .244 1994.0629_13:00  247.94  n/a     .000
04913>      {MxStoUsed=.9588E-02  m3, TotOvfVol=.1214E+01  m3, N-Ovf=  109, TotDurOvf=  127.hrs}
04914> R0094:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04915>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .340 1994.0629_13:00  262.21 .485     .000
04916>       [XIMP=.57:TIMP=.67]
04917>       [LOSS= 2 :CN= 71.0]
04918>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04919>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04920>       [IaRECimp=   1.50: IaRECper=   6.00]
04921>       [SMIN= 41.38: SMAX=275.84: SK= .030]
04922> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
04923> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04924> # Total Volume provided by LID  - 131 m³
04925> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04926> R0094:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04927>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .340 1994.0629_13:00  262.21  n/a     .000
04928>                   out <=    5.0 01:W4-LID         1.84     .001 1994.0322_ 1:20  262.22  n/a     .000
04929>              overflow <=    5.0 03:W4-LID-Out     6.34     .334 1994.0629_13:00  262.21  n/a     .000
04930>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1662E+01  m3, N-Ovf=  111, TotDurOvf=  128.hrs}
04931> R0094:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04932>     ADD HYD               5.0 02:W1             8.92     .404 1994.0629_13:00  289.36  n/a     .000
04933>                     +     5.0 02:W2            10.75     .475 1994.0629_13:00  285.81  n/a     .000
04934>                     +     5.0 02:W3             6.30     .249 1994.0629_13:00  247.94  n/a     .000
04935>                     +     5.0 02:W4             8.18     .340 1994.0629_13:00  262.21  n/a     .000
04936>                   SUM=    5.0 01:BCD-PH3       34.15    1.469 1994.0629_13:00  274.10  n/a     .000
04937> R0094:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04938>     ADD HYD               5.0 02:W1-LID-Out     6.62     .399 1994.0629_13:00  289.36  n/a     .000
04939>                     +     5.0 02:W2-LID-Out     8.14     .468 1994.0629_13:00  285.81  n/a     .000
04940>                     +     5.0 02:W3-LID-Out     4.90     .244 1994.0629_13:00  247.94  n/a     .000
04941>                     +     5.0 02:W4-LID-Out     6.34     .334 1994.0629_13:00  262.21  n/a     .000
04942>                   SUM=    5.0 01:BCD-PH3-LI    26.00    1.445 1994.0629_13:00  273.83  n/a     .000
04943> #*************************************************************************************************************
04944> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
04945> #*************************************************************************************************************
04946> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
04947> #*************************************************************************************************************
04948> R0094:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04949>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .520 1994.0629_13:00  353.48 .654     .000
04950>       [XIMP=.66:TIMP=.71]
04951>       [LOSS= 2 :CN=100.0]
04952>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04953>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
04954>       [IaRECimp=   1.50: IaRECper=   6.00]
04955>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04956> R0094:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04957>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .623 1994.0629_13:00  351.67 .651     .000
04958>       [XIMP=.65:TIMP=.70]
04959>       [LOSS= 2 :CN=100.0]
04960>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04961>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
04962>       [IaRECimp=   1.50: IaRECper=   6.00]
04963>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04964> R0094:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04965>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .363 1994.0629_13:00  339.63 .629     .000
04966>       [XIMP=.53:TIMP=.63]
04967>       [LOSS= 2 :CN=100.0]
04968>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04969>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
04970>       [IaRECimp=   1.50: IaRECper=   6.00]
04971>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04972> R0094:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04973>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .473 1994.0629_13:00  346.97 .642     .000
04974>       [XIMP=.57:TIMP=.67]
04975>       [LOSS= 2 :CN=100.0]
04976>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04977>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
04978>       [IaRECimp=   1.50: IaRECper=   6.00]
04979>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
04980> R0094:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04981>     ADD HYD               5.0 02:INF-W1         8.92     .520 1994.0629_13:00  353.48  n/a     .000
04982>                     +     5.0 02:INF-W2        10.75     .623 1994.0629_13:00  351.67  n/a     .000
04983>                     +     5.0 02:INF-W3         6.30     .363 1994.0629_13:00  339.63  n/a     .000
04984>                     +     5.0 02:INF-W4         8.18     .473 1994.0629_13:00  346.97  n/a     .000
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04985>                  SUM=     5.0 01:INF-BCD-PH    34.15    1.979 1994.0629_13:00  348.80  n/a     .000
04986> ###############################################################################
04987> # CONTINUOUS RAINFALL DATA
04988> ###############################################################################
04989>   ** END OF RUN :   94
04990>
04991> ********************************************************************************************
04992>
04993>
04994>
04995>
04996>
04997>  RUN#:COMMAND#
04998> R0095:C00001-------------------------------------------------------------------------------------
04999>      START
05000>       [TZERO =    .00 hrs on 19950101]
05001>       [METOUT=   2    (1=imperial, 2=metric output)]
05002>       [NSTORM=   0 ]
05003>       [NRUN  = 0095 ]
05004> #*************************************************************************************************
05005> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05006> #*************************************************************************************************
05007> #  Project Name: Barrhaven Conservancy Development
05008> #  Project Number: 1474
05009> #  Date        : 2021/Oct/18
05010> #  Modeller    : J.Burnett, P.Eng.
05011> #  Updated     : 2022/Dec/13 [LP]
05012> #  Company     : J.F. Sabourin and Associates
05013> #  License #   : 2582634
05014> #*************************************************************************************************
05015> # Ottawa International Airport (1967 - 2003)
05016> R0095:C00002-------------------------------------------------------------------------------------
05017>   *  READ AES DATA
05018>       [Filename  = YOW_1967_2007.123                                          ]
05019>       [Start_date= 1995.0101: End_date= 1995.1231]
05020>       {DT= 60.min: Length= 8040.hrs: WetHrs=  332: DryHrs= 7708: PTOT= 538.50}
05021>       Maximum average rainfall intensities over
05022>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05023>        16.90    13.25    11.33     8.98     6.35     3.48     2.95     2.21     1.48    mm/hr
05024>        16.90    26.50    34.00    53.90    76.20    83.40   106.20   106.20   106.20    mm
05025>       19950603 19950603 19951006 19951006 19951006 19951006 19951007 19951007 19951008  date
05026>       Number of rainfall events per following interevent time
05027>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05028>           91       73       65       55       47       41       34       31       25
05029>       Number of events with at least the following durations
05030>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05031>           90       54       35       16        7        1        0        0        0
05032> R0095:C00003-------------------------------------------------------------------------------------
05033>      COMPUTE API
05034>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
05035>       {APImax= 99.57: APIavg= 16.58: APImin=   .00}
05036> #*************************************************************************************************
05037> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
05038> #*************************************************************************************************
05039> R0095:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05040>     CONTINUOUS STANDHYD   5.0 01:W1            8.92     .312 1995.0603_ 2:00  352.28 .654     .000
05041>       [XIMP=.66:TIMP=.71]
05042>       [LOSS= 2 :CN= 71.0]
05043>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05044>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05045>       [IaRECimp=   1.50: IaRECper=   6.00]
05046>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05047> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
05048> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05049> # Total Volume provided by LID  - 179 m³
05050> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05051> R0095:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05052>     ROUTE RESERVOIR ->    5.0 02:W1            8.92     .312 1995.0603_ 2:00  352.28  n/a     .000
05053>                   out <=    5.0 01:W1-LID         1.46     .001 1995.0113_15:35  352.28  n/a     .000
05054>              overflow <=    5.0 03:W1-LID-Out     7.46     .308 1995.0603_ 2:00  352.28  n/a     .000
05055>       {MxStoUsed=.1790E-01  m3, TotOvfVol=.2629E+01  m3, N-Ovf=   63, TotDurOvf=  154.hrs}
05056> R0095:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05057>     CONTINUOUS STANDHYD   5.0 01:W2           10.75     .372 1995.0603_ 2:00  349.29 .649     .000
05058>       [XIMP=.65:TIMP=.70]
05059>       [LOSS= 2 :CN= 71.0]
05060>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05061>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05062>       [IaRECimp=   1.50: IaRECper=   6.00]
05063>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05064> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
05065> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05066> # Total Volume provided by LID  - 200 m³
05067> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05068> R0095:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05069>     ROUTE RESERVOIR ->    5.0 02:W2           10.75     .372 1995.0603_ 2:00  349.29  n/a     .000
05070>                   out <=    5.0 01:W2-LID         1.66     .001 1995.0113_15:35  349.29  n/a     .000
05071>              overflow <=    5.0 03:W2-LID-Out     9.09     .366 1995.0603_ 2:00  349.29  n/a     .000
05072>       {MxStoUsed=.1999E-01  m3, TotOvfVol=.3175E+01  m3, N-Ovf=   70, TotDurOvf=  157.hrs}
05073> R0095:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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05074>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .203 1995.0603_ 8:05  319.42 .593     .000
05075>       [XIMP=.53:TIMP=.63]
05076>       [LOSS= 2 :CN= 71.0]
05077>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05078>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05079>       [IaRECimp=   1.50: IaRECper=   6.00]
05080>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05081> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
05082> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05083> # Total Volume provided by LID  - 96 m³
05084> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05085> R0095:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05086>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .203 1995.0603_ 8:05  319.42  n/a     .000
05087>                 out <=    5.0 01:W3-LID          .86     .001 1995.0113_15:35  319.42  n/a     .000
05088>           overflow <=    5.0 03:W3-LID-Out     5.44     .202 1995.0603_ 8:05  319.42  n/a     .000
05089>      {MxStoUsed=.9595E-02  m3, TotOvfVol=.1738E+01  m3, N-Ovf=   65, TotDurOvf=  159.hrs}
05090> R0095:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05091>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .267 1995.0603_ 8:05  331.54 .616     .000
05092>       [XIMP=.57:TIMP=.67]
05093>       [LOSS= 2 :CN= 71.0]
05094>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05095>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05096>       [IaRECimp=   1.50: IaRECper=   6.00]
05097>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05098> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
05099> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05100> # Total Volume provided by LID  - 131 m³
05101> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05102> R0095:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05103>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .267 1995.0603_ 8:05  331.54  n/a     .000
05104>                 out <=    5.0 01:W4-LID         1.14     .001 1995.0113_15:35  331.54  n/a     .000
05105>           overflow <=    5.0 03:W4-LID-Out     7.04     .265 1995.0603_ 8:05  331.54  n/a     .000
05106>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.2333E+01  m3, N-Ovf=   70, TotDurOvf=  160.hrs}
05107> R0095:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05108>     ADD HYD               5.0 02:W1             8.92     .312 1995.0603_ 2:00  352.28  n/a     .000
05109>                     +     5.0 02:W2            10.75     .372 1995.0603_ 2:00  349.29  n/a     .000
05110>                     +     5.0 02:W3             6.30     .203 1995.0603_ 8:05  319.42  n/a     .000
05111>                     +     5.0 02:W4             8.18     .267 1995.0603_ 8:05  331.54  n/a     .000
05112>                   SUM=    5.0 01:BCD-PH3       34.15    1.145 1995.0603_ 2:00  340.31  n/a     .000
05113> R0095:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05114>     ADD HYD               5.0 02:W1-LID-Out     7.46     .308 1995.0603_ 2:00  352.28  n/a     .000
05115>                     +     5.0 02:W2-LID-Out     9.09     .366 1995.0603_ 2:00  349.29  n/a     .000
05116>                     +     5.0 02:W3-LID-Out     5.44     .202 1995.0603_ 8:05  319.42  n/a     .000
05117>                     +     5.0 02:W4-LID-Out     7.04     .265 1995.0603_ 8:05  331.54  n/a     .000
05118>                   SUM=    5.0 01:BCD-PH3-LI    29.03    1.128 1995.0603_ 2:00  340.16  n/a     .000
05119> #*******************************************************************************************************
05120> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
05121> #*******************************************************************************************************
05122> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
05123> #*******************************************************************************************************
05124> R0095:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05125>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .405 1995.0603_ 2:00  413.01 .767     .000
05126>       [XIMP=.66:TIMP=.71]
05127>       [LOSS= 2 :CN=100.0]
05128>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05129>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05130>       [IaRECimp=   1.50: IaRECper=   6.00]
05131>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05132> R0095:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05133>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .487 1995.0603_ 2:00  411.79 .765     .000
05134>       [XIMP=.65:TIMP=.70]
05135>       [LOSS= 2 :CN=100.0]
05136>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05137>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05138>       [IaRECimp=   1.50: IaRECper=   6.00]
05139>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05140> R0095:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05141>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .288 1995.0603_ 2:00  403.66 .750     .000
05142>       [XIMP=.53:TIMP=.63]
05143>       [LOSS= 2 :CN=100.0]
05144>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05145>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05146>       [IaRECimp=   1.50: IaRECper=   6.00]
05147>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05148> R0095:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05149>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .371 1995.0603_ 2:00  408.61 .759     .000
05150>       [XIMP=.57:TIMP=.67]
05151>       [LOSS= 2 :CN=100.0]
05152>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05153>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05154>       [IaRECimp=   1.50: IaRECper=   6.00]
05155>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05156> R0095:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05157>     ADD HYD               5.0 02:INF-W1         8.92     .405 1995.0603_ 2:00  413.01  n/a     .000
05158>                     +     5.0 02:INF-W2        10.75     .487 1995.0603_ 2:00  411.79  n/a     .000
05159>                     +     5.0 02:INF-W3         6.30     .288 1995.0603_ 2:00  403.66  n/a     .000
05160>                     +     5.0 02:INF-W4         8.18     .371 1995.0603_ 2:00  408.61  n/a     .000
05161>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.551 1995.0603_ 2:00  409.85  n/a     .000
05162> ##########################################################################
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05163> # CONTINUOUS RAINFALL DATA
05164> ###############################################################################
05165>   ** END OF RUN :   95
05166>
05167> ***************************************************************************************************
05168>
05169>
05170>
05171>
05172>
05173>  RUN#:COMMAND#
05174> R0096:C00001-----------------------------------------------------------------------------------------
05175>      START
05176>       [TZERO =    .00 hrs on 19960101]
05177>       [METOUT=   2    (1=imperial, 2=metric output)]
05178>       [NSTORM=   0 ]
05179>       [NRUN  = 0096 ]
05180> #*************************************************************************************************************
05181> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05182> #*************************************************************************************************************
05183> #  Project Name: Barrhaven Conservancy Development
05184> #  Project Number: 1474
05185> #  Date        : 2021/Oct/18
05186> #  Modeller    : J.Burnett, P.Eng.
05187> #  Updated     : 2022/Dec/13 [LP]
05188> #  Company     : J.F. Sabourin and Associates
05189> #  License #   : 2582634
05190> #*************************************************************************************************************
05191> # Ottawa International Airport (1967 - 2003)
05192> R0096:C00002-----------------------------------------------------------------------------------------
05193>   *  READ AES DATA
05194>       [Filename  = YOW_1967_2007.123                                          ]
05195>       [Start_date= 1996.0101: End_date= 1996.1230]
05196>       {DT= 60.min: Length= 6552.hrs: WetHrs=  387: DryHrs= 6165: PTOT= 512.20}
05197>       Maximum average rainfall intensities over
05198>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05199>        18.50    13.55     9.03     5.42     2.93     1.84     1.32     1.02      .70    mm/hr
05200>        18.50    27.10    27.10    32.50    35.10    44.10    47.50    49.00    50.30    mm
05201>       19960731 19960731 19960731 19960731 19960731 19961109 19961109 19961109 19961109  date
05202>       Number of rainfall events per following interevent time
05203>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05204>          132      104       93       71       59       43       36       31       24
05205>       Number of events with at least the following durations
05206>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05207>          131       72       50       19        2        1        0        0        0
05208> R0096:C00003-----------------------------------------------------------------------------------------
05209>      COMPUTE API
05210>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
05211>       {APImax= 63.22: APIavg= 19.39: APImin=   .71}
05212> #*************************************************************************************************************
05213> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
05214> #*************************************************************************************************************
05215> R0096:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05216>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .319 1996.0731_15:00  268.38 .524     .000
05217>       [XIMP=.66:TIMP=.71]
05218>       [LOSS= 2 :CN= 71.0]
05219>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05220>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05221>       [IaRECimp=   1.50: IaRECper=   6.00]
05222>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05223> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
05224> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05225> # Total Volume provided by LID  - 179 m³
05226> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05227> R0096:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05228>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .319 1996.0731_15:00  268.38  n/a     .000
05229>                 out <=    5.0 01:W1-LID         2.54     .001 1996.0416_16:20  268.38  n/a     .000
05230>           overflow <=    5.0 03:W1-LID-Out     6.38     .315 1996.0731_15:00  268.38  n/a     .000
05231>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.1712E+01  m3, N-Ovf=  112, TotDurOvf=  144.hrs}
05232> R0096:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05233>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .378 1996.0731_15:00  264.99 .517     .000
05234>       [XIMP=.65:TIMP=.70]
05235>       [LOSS= 2 :CN= 71.0]
05236>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05237>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05238>       [IaRECimp=   1.50: IaRECper=   6.00]
05239>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05240> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
05241> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05242> # Total Volume provided by LID  - 200 m³
05243> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05244> R0096:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05245>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .378 1996.0731_15:00  264.99  n/a     .000
05246>                 out <=    5.0 01:W2-LID         2.89     .001 1996.0416_16:15  264.98  n/a     .000
05247>           overflow <=    5.0 03:W2-LID-Out     7.86     .374 1996.0731_15:00  264.99  n/a     .000
05248>      {MxStoUsed=.1999E-01  m3, TotOvfVol=.2083E+01  m3, N-Ovf=  110, TotDurOvf=  151.hrs}
05249> R0096:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05250>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .193 1996.0731_15:00  228.30 .446     .000
05251>       [XIMP=.53:TIMP=.63]
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05252>       [LOSS= 2 :CN= 71.0]
05253>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05254>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05255>       [IaRECimp=   1.50: IaRECper=   6.00]
05256>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05257> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
05258> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05259> # Total Volume provided by LID  - 96 m³
05260> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05261> R0096:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05262>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .193 1996.0731_15:00  228.30  n/a     .000
05263>                   out <=    5.0 01:W3-LID         1.58     .001 1996.0416_16:10  228.31  n/a     .000
05264>             overflow <=    5.0 03:W3-LID-Out     4.72     .189 1996.0731_15:00  228.30  n/a     .000
05265>      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1079E+01  m3, N-Ovf=  111, TotDurOvf=  154.hrs}
05266> R0096:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05267>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .265 1996.0731_15:00  241.96 .472     .000
05268>       [XIMP=.57:TIMP=.67]
05269>       [LOSS= 2 :CN= 71.0]
05270>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05271>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05272>       [IaRECimp=   1.50: IaRECper=   6.00]
05273>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05274> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
05275> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05276> # Total Volume provided by LID  - 131 m³
05277> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05278> R0096:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05279>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .265 1996.0731_15:00  241.96  n/a     .000
05280>                   out <=    5.0 01:W4-LID         2.06     .001 1996.0416_16:10  241.96  n/a     .000
05281>             overflow <=    5.0 03:W4-LID-Out     6.12     .260 1996.0731_15:00  241.96  n/a     .000
05282>      {MxStoUsed=.1309E-01  m3, TotOvfVol=.1482E+01  m3, N-Ovf=  116, TotDurOvf=  155.hrs}
05283> R0096:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05284>     ADD HYD               5.0 02:W1             8.92     .319 1996.0731_15:00  268.38  n/a     .000
05285>                     +     5.0 02:W2            10.75     .378 1996.0731_15:00  264.99  n/a     .000
05286>                     +     5.0 02:W3             6.30     .193 1996.0731_15:00  228.30  n/a     .000
05287>                     +     5.0 02:W4             8.18     .265 1996.0731_15:00  241.96  n/a     .000
05288>                   SUM=    5.0 01:BCD-PH3       34.15    1.155 1996.0731_15:00  253.59  n/a     .000
05289> R0096:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05290>     ADD HYD               5.0 02:W1-LID-Out     6.38     .315 1996.0731_15:00  268.38  n/a     .000
05291>                     +     5.0 02:W2-LID-Out     7.86     .374 1996.0731_15:00  264.99  n/a     .000
05292>                     +     5.0 02:W3-LID-Out     4.72     .189 1996.0731_15:00  228.30  n/a     .000
05293>                     +     5.0 02:W4-LID-Out     6.12     .260 1996.0731_15:00  241.96  n/a     .000
05294>                   SUM=    5.0 01:BCD-PH3-LI    25.09    1.138 1996.0731_15:00  253.32  n/a     .000
05295> #*****************************************************************************************************
05296> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
05297> #*****************************************************************************************************
05298> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
05299> #*****************************************************************************************************
05300> R0096:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05301>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .415 1996.0731_15:00  325.58 .636     .000
05302>       [XIMP=.66:TIMP=.71]
05303>       [LOSS= 2 :CN=100.0]
05304>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05305>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05306>       [IaRECimp=   1.50: IaRECper=   6.00]
05307>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05308> R0096:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05309>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .496 1996.0731_15:00  323.72 .632     .000
05310>       [XIMP=.65:TIMP=.70]
05311>       [LOSS= 2 :CN=100.0]
05312>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05313>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05314>       [IaRECimp=   1.50: IaRECper=   6.00]
05315>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05316> R0096:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05317>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .294 1996.0731_15:00  310.77 .607     .000
05318>       [XIMP=.53:TIMP=.63]
05319>       [LOSS= 2 :CN=100.0]
05320>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05321>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05322>       [IaRECimp=   1.50: IaRECper=   6.00]
05323>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05324> R0096:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05325>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .384 1996.0731_15:00  318.36 .622     .000
05326>       [XIMP=.57:TIMP=.67]
05327>       [LOSS= 2 :CN=100.0]
05328>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05329>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05330>       [IaRECimp=   1.50: IaRECper=   6.00]
05331>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05332> R0096:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05333>     ADD HYD               5.0 02:INF-W1         8.92     .415 1996.0731_15:00  325.58  n/a     .000
05334>                     +     5.0 02:INF-W2        10.75     .496 1996.0731_15:00  323.72  n/a     .000
05335>                     +     5.0 02:INF-W3         6.30     .294 1996.0731_15:00  310.77  n/a     .000
05336>                     +     5.0 02:INF-W4         8.18     .384 1996.0731_15:00  318.36  n/a     .000
05337>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.590 1996.0731_15:00  320.53  n/a     .000
05338> ###########################################################################
05339> # CONTINUOUS RAINFALL DATA
05340> ###########################################################################
```

```
05341>   ** END OF RUN :   96
05342>
05343> ****************************************************************************************************
05344>
05345>
05346>
05347>
05348>
05349>  RUN#:COMMAND#
05350> R0097:C00001-----------------------------------------------------------------------------------------
05351>      START
05352>       [TZERO =    .00 hrs on 19970101]
05353>       [METOUT=   2    (1=imperial, 2=metric output)]
05354>       [NSTORM=   0 ]
05355>       [NRUN  = 0097 ]
05356> #*********************************************************************************************************
05357> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05358> #*********************************************************************************************************
05359> #  Project Name: Barrhaven Conservancy Development
05360> #  Project Number: 1474
05361> #  Date        : 2021/Oct/18
05362> #  Modeller    : J.Burnett, P.Eng.
05363> #  Updated     : 2022/Dec/13 [LP]
05364> #  Company     : J.F. Sabourin and Associates
05365> #  License #   : 2582634
05366> #*********************************************************************************************************
05367> # Ottawa International Airport (1967 - 2003)
05368> R0097:C00002-----------------------------------------------------------------------------------------
05369>   *  READ AES DATA
05370>       [Filename  = YOW_1967_2007.123                                          ]
05371>       [Start_date= 1997.0101: End_date= 1997.1231]
05372>       {DT= 60.min: Length= 8040.hrs: WetHrs=  379: DryHrs= 7661: PTOT= 433.20}
05373>       Maximum average rainfall intensities over
05374>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05375>        12.50     7.60     5.67     4.43     2.91     1.68     1.12      .84      .63    mm/hr
05376>        12.50    15.20    17.00    26.60    34.90    40.40    40.40    40.40    45.30    mm
05377>       19970622 19970622 19970622 19970221 19970222 19970222 19970222 19970222 19970222  date
05378>       Number of rainfall events per following interevent time
05379>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05380>          113       92       83       67       61       55       48       43       30
05381>       Number of events with at least the following durations
05382>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05383>          112       70       46       20        4        0        0        0        0
05384> R0097:C00003-----------------------------------------------------------------------------------------
05385>      COMPUTE API
05386>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
05387>       {APImax= 50.00: APIavg= 13.66: APImin=   .27}
05388> #*********************************************************************************************************
05389> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
05390> #*********************************************************************************************************
05391> R0097:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05392>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .212 1997.0622_ 4:00  226.27 .522     .000
05393>       [XIMP=.66:TIMP=.71]
05394>       [LOSS= 2 :CN= 71.0]
05395>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05396>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05397>       [IaRECimp=   1.50: IaRECper=   6.00]
05398>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05399> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
05400> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05401> # Total Volume provided by LID  - 179 m³
05402> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05403> R0097:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05404>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .212 1997.0622_ 4:00  226.27  n/a     .000
05405>                 out <=    5.0 01:W1-LID         2.71     .001 1997.0219_19:20  226.27  n/a     .000
05406>            overflow <=    5.0 03:W1-LID-Out     6.21     .209 1997.0622_ 4:00  226.27  n/a     .000
05407>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.1405E+01  m3, N-Ovf=   81, TotDurOvf=  158.hrs}
05408> R0097:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05409>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .249 1997.0622_ 4:00  223.23 .515     .000
05410>       [XIMP=.65:TIMP=.70]
05411>       [LOSS= 2 :CN= 71.0]
05412>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05413>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05414>       [IaRECimp=   1.50: IaRECper=   6.00]
05415>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05416> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
05417> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05418> # Total Volume provided by LID  - 200 m³
05419> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05420> R0097:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05421>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .249 1997.0622_ 4:00  223.23  n/a     .000
05422>                 out <=    5.0 01:W2-LID         3.09     .001 1997.0219_19:00  223.23  n/a     .000
05423>            overflow <=    5.0 03:W2-LID-Out     7.66     .246 1997.0622_ 4:00  223.23  n/a     .000
05424>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.1710E+01  m3, N-Ovf=   85, TotDurOvf=  163.hrs}
05425> R0097:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05426>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .126 1997.0622_ 4:00  189.53 .438     .000
05427>       [XIMP=.53:TIMP=.63]
05428>       [LOSS= 2 :CN= 71.0]
05429>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
```

```
05430>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05431>       [IaRECimp=   1.50: IaRECper=   6.00]
05432>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05433> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
05434> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05435> # Total Volume provided by LID  - 96 m³
05436> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05437> R0097:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05438>     ROUTE RESERVOIR ->    5.0 02:W3            6.30     .126 1997.0622_ 4:00  189.53  n/a     .000
05439>                 out <=    5.0 01:W3-LID         1.71     .001 1997.0219_18:50  189.53  n/a     .000
05440>            overflow <=    5.0 03:W3-LID-Out     4.59     .124 1997.0622_ 4:00  189.53  n/a     .000
05441>      {MxStoUsed=.9597E-02  m3, TotOvfVol=.8705E+00  m3, N-Ovf=   88, TotDurOvf=  167.hrs}
05442> R0097:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05443>     CONTINUOUS STANDHYD   5.0 01:W4            8.18     .174 1997.0622_ 4:00  201.76 .466     .000
05444>       [XIMP=.57:TIMP=.67]
05445>       [LOSS= 2 :CN= 71.0]
05446>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05447>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05448>       [IaRECimp=   1.50: IaRECper=   6.00]
05449>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05450> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
05451> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05452> # Total Volume provided by LID  - 131 m³
05453> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05454> R0097:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05455>     ROUTE RESERVOIR ->    5.0 02:W4            8.18     .174 1997.0622_ 4:00  201.76  n/a     .000
05456>                 out <=    5.0 01:W4-LID         2.22     .001 1997.0219_18:50  201.76  n/a     .000
05457>            overflow <=    5.0 03:W4-LID-Out     5.96     .171 1997.0622_ 4:00  201.76  n/a     .000
05458>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1202E+01  m3, N-Ovf=   93, TotDurOvf=  167.hrs}
05459> R0097:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05460>     ADD HYD               5.0 02:W1            8.92     .212 1997.0622_ 4:00  226.27  n/a     .000
05461>                     +     5.0 02:W2           10.75     .249 1997.0622_ 4:00  223.23  n/a     .000
05462>                     +     5.0 02:W3            6.30     .126 1997.0622_ 4:00  189.53  n/a     .000
05463>                     +     5.0 02:W4            8.18     .174 1997.0622_ 4:00  201.76  n/a     .000
05464>                   SUM=    5.0 01:BCD-PH3      34.15     .760 1997.0622_ 4:00  212.66  n/a     .000
05465> R0097:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05466>     ADD HYD               5.0 02:W1-LID-Out    6.21     .209 1997.0622_ 4:00  226.27  n/a     .000
05467>                     +     5.0 02:W2-LID-Out    7.66     .246 1997.0622_ 4:00  223.23  n/a     .000
05468>                     +     5.0 02:W3-LID-Out    4.59     .124 1997.0622_ 4:00  189.53  n/a     .000
05469>                     +     5.0 02:W4-LID-Out    5.96     .171 1997.0622_ 4:00  201.76  n/a     .000
05470>                   SUM=    5.0 01:BCD-PH3-LI   24.42     .751 1997.0622_ 4:00  212.43  n/a     .000
05471> #*************************************************************************************************
05472> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
05473> #*************************************************************************************************
05474> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
05475> #*************************************************************************************************
05476> R0097:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05477>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .282 1997.0622_ 4:00  278.62 .643     .000
05478>       [XIMP=.66:TIMP=.71]
05479>       [LOSS= 2 :CN=100.0]
05480>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05481>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05482>       [IaRECimp=   1.50: IaRECper=   6.00]
05483>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05484> R0097:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05485>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .333 1997.0622_ 4:00  276.95 .639     .000
05486>       [XIMP=.65:TIMP=.70]
05487>       [LOSS= 2 :CN=100.0]
05488>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05489>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05490>       [IaRECimp=   1.50: IaRECper=   6.00]
05491>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05492> R0097:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05493>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .197 1997.0622_ 4:00  265.55 .613     .000
05494>       [XIMP=.53:TIMP=.63]
05495>       [LOSS= 2 :CN=100.0]
05496>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05497>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05498>       [IaRECimp=   1.50: IaRECper=   6.00]
05499>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05500> R0097:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05501>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .257 1997.0622_ 4:00  272.33 .629     .000
05502>       [XIMP=.57:TIMP=.67]
05503>       [LOSS= 2 :CN=100.0]
05504>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05505>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05506>       [IaRECimp=   1.50: IaRECper=   6.00]
05507>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05508> R0097:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05509>     ADD HYD               5.0 02:INF-W1         8.92     .282 1997.0622_ 4:00  278.62  n/a     .000
05510>                     +     5.0 02:INF-W2        10.75     .333 1997.0622_ 4:00  276.95  n/a     .000
05511>                     +     5.0 02:INF-W3         6.30     .197 1997.0622_ 4:00  265.55  n/a     .000
05512>                     +     5.0 02:INF-W4         8.18     .257 1997.0622_ 4:00  272.33  n/a     .000
05513>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.069 1997.0622_ 4:00  274.18  n/a     .000
05514> ##############################################################################
05515> # CONTINUOUS RAINFALL DATA
05516> ##############################################################################
05517>   ** END OF RUN :   97
05518>
```

```
05519> ********************************************************************************************************
05520>
05521>
05522>
05523>
05524>
05525>  RUN#:COMMAND#
05526> R0098:C00001-------------------------------------------------------------------------------------------
05527>      START
05528>       [TZERO =    .00 hrs on 19980101]
05529>       [METOUT=   2    (1=imperial, 2=metric output)]
05530>       [NSTORM=   0 ]
05531>       [NRUN  = 0098 ]
05532> #*************************************************************************************************************
05533> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05534> #*************************************************************************************************************
05535> #  Project Name: Barrhaven Conservancy Development
05536> #  Project Number: 1474
05537> #  Date        : 2021/Oct/18
05538> #  Modeller    : J.Burnett, P.Eng.
05539> #  Updated     : 2022/Dec/13 [LP]
05540> #  Company     : J.F. Sabourin and Associates
05541> #  License #   : 2582634
05542> #*************************************************************************************************************
05543> # Ottawa International Airport (1967 - 2003)
05544> R0098:C00002-------------------------------------------------------------------------------------------
05545>   *  READ AES DATA
05546>       [Filename  = YOW_1967_2007.123                                          ]
05547>       [Start_date= 1998.0101: End_date= 1998.1231]
05548>       {DT= 60.min: Length= 5088.hrs: WetHrs=  291: DryHrs= 4797: PTOT= 440.30}
05549>       Maximum average rainfall intensities over
05550>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05551>        15.80     8.90     7.60     4.00     2.54     1.82     1.27      .95      .76    mm/hr
05552>        15.80    17.80    22.80    24.00    30.50    43.60    45.80    45.80    54.60    mm
05553>       19980716 19980627 19980927 19980927 19980927 19980927 19980927 19980928 19980928 19980615  date
05554>       Number of rainfall events per following interevent time
05555>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05556>          126      104       95       78       63       42       37       32       21
05557>       Number of events with at least the following durations
05558>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05559>          125       64       43        8        1        0        0        0        0
05560> R0098:C00003-------------------------------------------------------------------------------------------
05561>      COMPUTE API
05562>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
05563>       {APImax= 57.22: APIavg= 21.28: APImin=  1.69}
05564> #*************************************************************************************************************
05565> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
05566> #*************************************************************************************************************
05567> R0098:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05568>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .270 1998.0627_ 1:00  220.99 .502     .000
05569>       [XIMP=.66:TIMP=.71]
05570>       [LOSS= 2 :CN= 71.0]
05571>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05572>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05573>       [IaRECimp=   1.50: IaRECper=   6.00]
05574>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05575> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
05576> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05577> # Total Volume provided by LID  - 179 m³
05578> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05579> R0098:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05580>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .270 1998.0627_ 1:00  220.99  n/a     .000
05581>                   out <=    5.0 01:W1-LID         2.57     .001 1998.0424_17:35  220.99  n/a     .000
05582>              overflow <=    5.0 03:W1-LID-Out     6.35     .267 1998.0627_ 1:00  220.99  n/a     .000
05583>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.1404E+01  m3, N-Ovf=   97, TotDurOvf=  104.hrs}
05584> R0098:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05585>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .321 1998.0627_ 1:00  218.10 .495     .000
05586>       [XIMP=.65:TIMP=.70]
05587>       [LOSS= 2 :CN= 71.0]
05588>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05589>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05590>       [IaRECimp=   1.50: IaRECper=   6.00]
05591>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05592> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
05593> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05594> # Total Volume provided by LID  - 200 m³
05595> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05596> R0098:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05597>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .321 1998.0627_ 1:00  218.10  n/a     .000
05598>                   out <=    5.0 01:W2-LID         2.93     .001 1998.0424_17:30  218.10  n/a     .000
05599>              overflow <=    5.0 03:W2-LID-Out     7.82     .317 1998.0627_ 1:00  218.10  n/a     .000
05600>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.1705E+01  m3, N-Ovf=  102, TotDurOvf=  109.hrs}
05601> R0098:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05602>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .161 1998.0627_ 1:00  186.61 .424     .000
05603>       [XIMP=.53:TIMP=.63]
05604>       [LOSS= 2 :CN= 71.0]
05605>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05606>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05607>       [IaRECimp=   1.50: IaRECper=   6.00]
```

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05608>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05609> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
05610> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05611> # Total Volume provided by LID  - 96 m³
05612> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05613> R0098:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05614>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .161 1998.0627_ 1:00  186.61  n/a     .000
05615>                   out <=    5.0 01:W3-LID         1.61     .001 1998.0424_17:30  186.61  n/a     .000
05616>             overflow <=    5.0 03:W3-LID-Out     4.69     .159 1998.0627_ 1:00  186.61  n/a     .000
05617>      {MxStoUsed=.9600E-02  m3, TotOvfVol=.8746E+00  m3, N-Ovf=  105, TotDurOvf=  113.hrs}
05618> R0098:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05619>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .222 1998.0627_ 1:00  198.22 .450     .000
05620>       [XIMP=.57:TIMP=.67]
05621>       [LOSS= 2 :CN= 71.0]
05622>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05623>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05624>       [IaRECimp=   1.50: IaRECper=   6.00]
05625>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05626> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
05627> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05628> # Total Volume provided by LID  - 131 m³
05629> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05630> R0098:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05631>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .222 1998.0627_ 1:00  198.22  n/a     .000
05632>                   out <=    5.0 01:W4-LID         2.10     .001 1998.0424_17:30  198.22  n/a     .000
05633>             overflow <=    5.0 03:W4-LID-Out     6.08     .219 1998.0627_ 1:00  198.22  n/a     .000
05634>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1204E+01  m3, N-Ovf=  101, TotDurOvf=  113.hrs}
05635> R0098:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05636>     ADD HYD               5.0 02:W1             8.92     .270 1998.0627_ 1:00  220.99  n/a     .000
05637>                     +     5.0 02:W2            10.75     .321 1998.0627_ 1:00  218.10  n/a     .000
05638>                     +     5.0 02:W3             6.30     .161 1998.0627_ 1:00  186.61  n/a     .000
05639>                     +     5.0 02:W4             8.18     .222 1998.0627_ 1:00  198.22  n/a     .000
05640>                   SUM=    5.0 01:BCD-PH3       34.15     .974 1998.0627_ 1:00  208.28  n/a     .000
05641> R0098:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05642>     ADD HYD               5.0 02:W1-LID-Out     6.35     .267 1998.0627_ 1:00  220.99  n/a     .000
05643>                     +     5.0 02:W2-LID-Out     7.82     .317 1998.0627_ 1:00  218.10  n/a     .000
05644>                     +     5.0 02:W3-LID-Out     4.69     .159 1998.0627_ 1:00  186.61  n/a     .000
05645>                     +     5.0 02:W4-LID-Out     6.08     .219 1998.0627_ 1:00  198.22  n/a     .000
05646>                   SUM=    5.0 01:BCD-PH3-LI    24.93     .962 1998.0627_ 1:00  208.07  n/a     .000
05647> #*****************************************************************************************************
05648> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
05649> #*****************************************************************************************************
05650> #                   Set infiltration to 0 (CN = 99.99) for water balance analysis
05651> #*****************************************************************************************************
05652> R0098:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05653>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .355 1998.0627_ 1:00  271.31 .616     .000
05654>       [XIMP=.66:TIMP=.71]
05655>       [LOSS= 2 :CN=100.0]
05656>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05657>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05658>       [IaRECimp=   1.50: IaRECper=   6.00]
05659>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05660> R0098:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05661>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .425 1998.0627_ 1:00  269.77 .613     .000
05662>       [XIMP=.65:TIMP=.70]
05663>       [LOSS= 2 :CN=100.0]
05664>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05665>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05666>       [IaRECimp=   1.50: IaRECper=   6.00]
05667>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05668> R0098:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05669>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .247 1998.0627_ 1:00  259.04 .588     .000
05670>       [XIMP=.53:TIMP=.63]
05671>       [LOSS= 2 :CN=100.0]
05672>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05673>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05674>       [IaRECimp=   1.50: IaRECper=   6.00]
05675>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05676> R0098:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05677>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .323 1998.0627_ 1:00  265.31 .603     .000
05678>       [XIMP=.57:TIMP=.67]
05679>       [LOSS= 2 :CN=100.0]
05680>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05681>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05682>       [IaRECimp=   1.50: IaRECper=   6.00]
05683>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05684> R0098:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05685>     ADD HYD               5.0 02:INF-W1         8.92     .355 1998.0627_ 1:00  271.31  n/a     .000
05686>                     +     5.0 02:INF-W2        10.75     .425 1998.0627_ 1:00  269.77  n/a     .000
05687>                     +     5.0 02:INF-W3         6.30     .247 1998.0627_ 1:00  259.04  n/a     .000
05688>                     +     5.0 02:INF-W4         8.18     .323 1998.0627_ 1:00  265.32  n/a     .000
05689>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.351 1998.0627_ 1:00  267.12  n/a     .000
05690> ###############################################################################
05691> # CONTINUOUS RAINFALL DATA
05692> ###############################################################################
05693>   ** END OF RUN :   98
05694>
05695> *****************************************************************************************************
05696>
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05697>
05698>
05699>
05700>
05701>  RUN#:COMMAND#
05702> R0099:C00001-------------------------------------------------------------------------------------
05703>      START
05704>       [TZERO =    .00 hrs on 19990101]
05705>       [METOUT=   2    (1=imperial, 2=metric output)]
05706>       [NSTORM=   0 ]
05707>       [NRUN  = 0099 ]
05708> #*************************************************************************************************************
05709> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05710> #*************************************************************************************************************
05711> #  Project Name: Barrhaven Conservancy Development
05712> #  Project Number: 1474
05713> #  Date        : 2021/Oct/18
05714> #  Modeller    : J.Burnett, P.Eng.
05715> #  Updated     : 2022/Dec/13 [LP]
05716> #  Company     : J.F. Sabourin and Associates
05717> #  License #   : 2582634
05718> #*************************************************************************************************************
05719> # Ottawa International Airport (1967 - 2003)
05720> R0099:C00002-------------------------------------------------------------------------------------
05721>   *  READ AES DATA
05722>       [Filename  = YOW_1967_2007.123                                          ]
05723>       [Start_date= 1999.0101: End_date= 1999.1231]
05724>       {DT= 60.min: Length= 4440.hrs: WetHrs=  247: DryHrs= 4193: PTOT= 424.40}
05725>       Maximum average rainfall intensities over
05726>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05727>        17.50    10.10     9.03     6.57     3.31     1.65     1.45     1.22      .97    mm/hr
05728>        17.50    20.20    27.10    39.40    39.70    39.70    52.20    58.60    69.50    mm
05729>       19990717 19990717 19990906 19990906 19990906 19990906 19990907 19990908 19990908  date
05730>       Number of rainfall events per following interevent time
05731>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05732>          102       80       70       63       56       39       31       28       18
05733>       Number of events with at least the following durations
05734>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05735>          101       57       31       10        1        0        0        0        0
05736> R0099:C00003-------------------------------------------------------------------------------------
05737>      COMPUTE API
05738>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
05739>       {APImax= 69.51: APIavg= 23.97: APImin=  1.93}
05740> #*************************************************************************************************************
05741> #                    Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
05742> #*************************************************************************************************************
05743> R0099:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05744>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .296 1999.0717_15:00  224.02 .528     .000
05745>       [XIMP=.66:TIMP=.71]
05746>       [LOSS= 2 :CN= 71.0]
05747>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05748>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05749>       [IaRECimp=   1.50: IaRECper=   6.00]
05750>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05751> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
05752> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05753> # Total Volume provided by LID  - 179 m³
05754> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05755> R0099:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05756>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .296 1999.0717_15:00  224.02  n/a     .000
05757>                   out <=    5.0 01:W1-LID         2.24     .001 1999.0508_17:50  224.02  n/a     .000
05758>             overflow <=    5.0 03:W1-LID-Out     6.68     .293 1999.0717_15:00  224.02  n/a     .000
05759>      {MxStoUsed=.1789E-01  m3, TotOvfVol=.1497E+01  m3, N-Ovf=   96, TotDurOvf=   96.hrs}
05760> R0099:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05761>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .351 1999.0717_15:00  221.08 .521     .000
05762>       [XIMP=.65:TIMP=.70]
05763>       [LOSS= 2 :CN= 71.0]
05764>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05765>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05766>       [IaRECimp=   1.50: IaRECper=   6.00]
05767>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05768> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
05769> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05770> # Total Volume provided by LID  - 200 m³
05771> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05772> R0099:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05773>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .351 1999.0717_15:00  221.08  n/a     .000
05774>                   out <=    5.0 01:W2-LID         2.53     .001 1999.0508_17:40  221.08  n/a     .000
05775>             overflow <=    5.0 03:W2-LID-Out     8.22     .348 1999.0717_15:00  221.08  n/a     .000
05776>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.1817E+01  m3, N-Ovf=   95, TotDurOvf=  101.hrs}
05777> R0099:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05778>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .176 1999.0717_15:00  189.03 .445     .000
05779>       [XIMP=.53:TIMP=.63]
05780>       [LOSS= 2 :CN= 71.0]
05781>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05782>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05783>       [IaRECimp=   1.50: IaRECper=   6.00]
05784>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05785> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
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05786> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05787> # Total Volume provided by LID  - 96 m³
05788> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05789> R0099:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05790>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .176 1999.0717_15:00  189.03  n/a     .000
05791>                 out <=    5.0 01:W3-LID         1.38     .001 1999.0508_17:35  189.02  n/a     .000
05792>            overflow <=    5.0 03:W3-LID-Out     4.92     .174 1999.0717_15:00  189.03  n/a     .000
05793>      {MxStoUsed=.9598E-02  m3, TotOvfVol=.9294E+00  m3, N-Ovf=  105, TotDurOvf=  103.hrs}
05794> R0099:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05795>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .243 1999.0717_15:00  200.84 .473     .000
05796>       [XIMP=.57:TIMP=.67]
05797>       [LOSS= 2 :CN= 71.0]
05798>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05799>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05800>       [IaRECimp=   1.50: IaRECper=   6.00]
05801>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05802> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
05803> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05804> # Total Volume provided by LID  - 131 m³
05805> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05806> R0099:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05807>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .243 1999.0717_15:00  200.84  n/a     .000
05808>                 out <=    5.0 01:W4-LID         1.80     .001 1999.0508_17:35  200.84  n/a     .000
05809>            overflow <=    5.0 03:W4-LID-Out     6.38     .240 1999.0717_15:00  200.84  n/a     .000
05810>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1281E+01  m3, N-Ovf=   94, TotDurOvf=  104.hrs}
05811> R0099:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05812>     ADD HYD               5.0 02:W1             8.92     .296 1999.0717_15:00  224.02  n/a     .000
05813>                     +     5.0 02:W2            10.75     .351 1999.0717_15:00  221.08  n/a     .000
05814>                     +     5.0 02:W3             6.30     .176 1999.0717_15:00  189.03  n/a     .000
05815>                     +     5.0 02:W4             8.18     .243 1999.0717_15:00  200.84  n/a     .000
05816>                   SUM=    5.0 01:BCD-PH3       34.15    1.066 1999.0717_15:00  211.09  n/a     .000
05817> R0099:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05818>     ADD HYD               5.0 02:W1-LID-Out     6.68     .293 1999.0717_15:00  224.02  n/a     .000
05819>                     +     5.0 02:W2-LID-Out     8.22     .348 1999.0717_15:00  221.08  n/a     .000
05820>                     +     5.0 02:W3-LID-Out     4.92     .174 1999.0717_15:00  189.03  n/a     .000
05821>                     +     5.0 02:W4-LID-Out     6.38     .240 1999.0717_15:00  200.84  n/a     .000
05822>                   SUM=    5.0 01:BCD-PH3-LI    26.20    1.055 1999.0717_15:00  210.89  n/a     .000
05823> #*******************************************************************************************************************
05824> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
05825> #*******************************************************************************************************************
05826> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
05827> #*******************************************************************************************************************
05828> R0099:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05829>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .391 1999.0717_15:00  277.73 .654     .000
05830>       [XIMP=.66:TIMP=.71]
05831>       [LOSS= 2 :CN=100.0]
05832>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05833>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05834>       [IaRECimp=   1.50: IaRECper=   6.00]
05835>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05836> R0099:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05837>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .467 1999.0717_15:00  276.22 .651     .000
05838>       [XIMP=.65:TIMP=.70]
05839>       [LOSS= 2 :CN=100.0]
05840>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05841>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05842>       [IaRECimp=   1.50: IaRECper=   6.00]
05843>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05844> R0099:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05845>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .276 1999.0717_15:00  266.49 .628     .000
05846>       [XIMP=.53:TIMP=.63]
05847>       [LOSS= 2 :CN=100.0]
05848>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05849>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05850>       [IaRECimp=   1.50: IaRECper=   6.00]
05851>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05852> R0099:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05853>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .355 1999.0717_15:00  272.58 .642     .000
05854>       [XIMP=.57:TIMP=.67]
05855>       [LOSS= 2 :CN=100.0]
05856>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05857>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05858>       [IaRECimp=   1.50: IaRECper=   6.00]
05859>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
05860> R0099:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05861>     ADD HYD               5.0 02:INF-W1         8.92     .391 1999.0717_15:00  277.73  n/a     .000
05862>                     +     5.0 02:INF-W2        10.75     .467 1999.0717_15:00  276.22  n/a     .000
05863>                     +     5.0 02:INF-W3         6.30     .276 1999.0717_15:00  266.49  n/a     .000
05864>                     +     5.0 02:INF-W4         8.18     .355 1999.0717_15:00  272.58  n/a     .000
05865>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.489 1999.0717_15:00  273.94  n/a     .000
05866> ###############################################################################
05867> # CONTINUOUS RAINFALL DATA
05868> ###############################################################################
05869>   ** END OF RUN :   99
05870>
05871> *******************************************************************************************************************
05872>
05873>
05874>
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05875>
05876>
05877>  RUN#:COMMAND#
05878> R0100:C00001-------------------------------------------------------------------------------------------
05879>      START
05880>       [TZERO =    .00 hrs on 20000101]
05881>       [METOUT=   2    (1=imperial, 2=metric output)]
05882>       [NSTORM=   0 ]
05883>       [NRUN  = 0100 ]
05884> #*********************************************************************************************************
05885> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05886> #*********************************************************************************************************
05887> #  Project Name: Barrhaven Conservancy Development
05888> #  Project Number: 1474
05889> #  Date        : 2021/Oct/18
05890> #  Modeller    : J.Burnett, P.Eng.
05891> #  Updated     : 2022/Dec/13 [LP]
05892> #  Company     : J.F. Sabourin and Associates
05893> #  License #   : 2582634
05894> #*********************************************************************************************************
05895> # Ottawa International Airport (1967 - 2003)
05896> R0100:C00002-------------------------------------------------------------------------------------------
05897>   *  READ AES DATA
05898>       [Filename  = YOW_1967_2007.123                                          ]
05899>       [Start_date= 2000.0101: End_date= 2000.1230]
05900>       {DT= 60.min: Length= 5160.hrs: WetHrs=  401: DryHrs= 4759: PTOT= 535.90}
05901>       Maximum average rainfall intensities over
05902>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05903>        14.70     9.60     8.03     6.43     3.89     1.95     1.30     1.03      .84    mm/hr
05904>        14.70    19.20    24.10    38.60    46.70    46.70    46.80    49.30    60.40    mm
05905>       20000625 20000625 20000625 20000625 20000625 20000625 20000626 20000510 20000511  date
05906>       Number of rainfall events per following interevent time
05907>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05908>          156      125      110       86       67       46       34       30       23
05909>       Number of events with at least the following durations
05910>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05911>          155       82       49       16        2        0        0        0        0
05912> R0100:C00003-------------------------------------------------------------------------------------------
05913>      COMPUTE API
05914>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
05915>       {APImax= 76.65: APIavg= 25.66: APImin=  5.70}
05916> #*********************************************************************************************************
05917> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
05918> #*********************************************************************************************************
05919> R0100:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05920>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .307 2000.0625_10:00  278.30 .519     .000
05921>       [XIMP=.66:TIMP=.71]
05922>       [LOSS= 2 :CN= 71.0]
05923>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05924>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
05925>       [IaRECimp=   1.50: IaRECper=   6.00]
05926>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05927> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
05928> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05929> # Total Volume provided by LID  - 179 m³
05930> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05931> R0100:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05932>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .307 2000.0625_10:00  278.30  n/a     .000
05933>                  out <=    5.0 01:W1-LID         2.33     .001 2000.0421_ 4:30  278.30  n/a     .000
05934>              overflow <=    5.0 03:W1-LID-Out     6.59     .302 2000.0625_10:00  278.30  n/a     .000
05935>       {MxStoUsed=.1789E-01  m3, TotOvfVol=.1835E+01  m3, N-Ovf=   92, TotDurOvf=  134.hrs}
05936> R0100:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05937>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .366 2000.0625_10:00  274.90 .513     .000
05938>       [XIMP=.65:TIMP=.70]
05939>       [LOSS= 2 :CN= 71.0]
05940>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05941>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
05942>       [IaRECimp=   1.50: IaRECper=   6.00]
05943>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05944> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
05945> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05946> # Total Volume provided by LID  - 200 m³
05947> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05948> R0100:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05949>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .366 2000.0625_10:00  274.90  n/a     .000
05950>                  out <=    5.0 01:W2-LID         2.66     .001 2000.0421_ 4:25  274.90  n/a     .000
05951>              overflow <=    5.0 03:W2-LID-Out     8.09     .360 2000.0625_10:00  274.90  n/a     .000
05952>       {MxStoUsed=.2000E-01  m3, TotOvfVol=.2225E+01  m3, N-Ovf=   96, TotDurOvf=  139.hrs}
05953> R0100:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05954>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .206 2000.0625_10:00  238.49 .445     .000
05955>       [XIMP=.53:TIMP=.63]
05956>       [LOSS= 2 :CN= 71.0]
05957>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05958>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
05959>       [IaRECimp=   1.50: IaRECper=   6.00]
05960>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05961> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
05962> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05963> # Total Volume provided by LID  - 96 m³
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05964> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05965> R0100:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05966>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .206 2000.0625_10:00  238.49  n/a     .000
05967>                 out <=    5.0 01:W3-LID         1.44     .001 2000.0421_ 4:20  238.49  n/a     .000
05968>            overflow <=    5.0 03:W3-LID-Out     4.86     .202 2000.0625_10:00  238.49  n/a     .000
05969>      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1159E+01  m3, N-Ovf=  105, TotDurOvf=  140.hrs}
05970> R0100:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05971>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .273 2000.0625_10:00  252.42 .471     .000
05972>       [XIMP=.57:TIMP=.67]
05973>       [LOSS= 2 :CN= 71.0]
05974>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05975>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
05976>       [IaRECimp=   1.50: IaRECper=   6.00]
05977>       [SMIN= 41.38: SMAX=275.84: SK= .030]
05978> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
05979> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05980> # Total Volume provided by LID  - 131 m³
05981> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05982> R0100:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05983>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .273 2000.0625_10:00  252.42  n/a     .000
05984>                 out <=    5.0 01:W4-LID         1.89     .001 2000.0421_ 4:20  252.42  n/a     .000
05985>            overflow <=    5.0 03:W4-LID-Out     6.29     .268 2000.0625_10:00  252.42  n/a     .000
05986>      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1589E+01  m3, N-Ovf=  104, TotDurOvf=  141.hrs}
05987> R0100:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05988>     ADD HYD               5.0 02:W1             8.92     .307 2000.0625_10:00  278.30  n/a     .000
05989>                     +     5.0 02:W2            10.75     .366 2000.0625_10:00  274.90  n/a     .000
05990>                     +     5.0 02:W3             6.30     .206 2000.0625_10:00  238.49  n/a     .000
05991>                     +     5.0 02:W4             8.18     .273 2000.0625_10:00  252.42  n/a     .000
05992>                   SUM=    5.0 01:BCD-PH3       34.15    1.153 2000.0625_10:00  263.68  n/a     .000
05993> R0100:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
05994>     ADD HYD               5.0 02:W1-LID-Out     6.59     .302 2000.0625_10:00  278.30  n/a     .000
05995>                     +     5.0 02:W2-LID-Out     8.09     .360 2000.0625_10:00  274.90  n/a     .000
05996>                     +     5.0 02:W3-LID-Out     4.86     .202 2000.0625_10:00  238.49  n/a     .000
05997>                     +     5.0 02:W4-LID-Out     6.29     .268 2000.0625_10:00  252.42  n/a     .000
05998>                   SUM=    5.0 01:BCD-PH3-LI    25.84    1.132 2000.0625_10:00  263.44  n/a     .000
05999> #*************************************************************************************************************
06000> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
06001> #*************************************************************************************************************
06002> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
06003> #*************************************************************************************************************
06004> R0100:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06005>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .351 2000.0625_10:00  338.07 .631     .000
06006>       [XIMP=.66:TIMP=.71]
06007>       [LOSS= 2 :CN=100.0]
06008>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06009>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
06010>       [IaRECimp=   1.50: IaRECper=   6.00]
06011>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06012> R0100:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06013>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .421 2000.0625_10:00  336.31 .628     .000
06014>       [XIMP=.65:TIMP=.70]
06015>       [LOSS= 2 :CN=100.0]
06016>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06017>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
06018>       [IaRECimp=   1.50: IaRECper=   6.00]
06019>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06020> R0100:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06021>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .246 2000.0625_10:00  323.88 .604     .000
06022>       [XIMP=.53:TIMP=.63]
06023>       [LOSS= 2 :CN=100.0]
06024>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06025>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
06026>       [IaRECimp=   1.50: IaRECper=   6.00]
06027>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06028> R0100:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06029>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .320 2000.0625_10:00  331.13 .618     .000
06030>       [XIMP=.57:TIMP=.67]
06031>       [LOSS= 2 :CN=100.0]
06032>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06033>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
06034>       [IaRECimp=   1.50: IaRECper=   6.00]
06035>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06036> R0100:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06037>     ADD HYD               5.0 02:INF-W1         8.92     .351 2000.0625_10:00  338.07  n/a     .000
06038>                     +     5.0 02:INF-W2        10.75     .421 2000.0625_10:00  336.31  n/a     .000
06039>                     +     5.0 02:INF-W3         6.30     .246 2000.0625_10:00  323.88  n/a     .000
06040>                     +     5.0 02:INF-W4         8.18     .320 2000.0625_10:00  331.13  n/a     .000
06041>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.338 2000.0625_10:00  333.24  n/a     .000
06042> ###############################################################################
06043> # CONTINUOUS RAINFALL DATA
06044> ###############################################################################
06045>   ** END OF RUN :  101
06046>
06047> *************************************************************************************************************
06048>
06049>
06050>
06051>
06052>
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06053>  RUN#:COMMAND#
06054> R0102:C00001-------------------------------------------------------------------------------------------
06055>      START
06056>       [TZERO =    .00 hrs on 20020101]
06057>       [METOUT=   2    (1=imperial, 2=metric output)]
06058>       [NSTORM=   0 ]
06059>       [NRUN  = 0102 ]
06060> #*********************************************************************************************************
06061> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
06062> #*********************************************************************************************************
06063> #  Project Name: Barrhaven Conservancy Development
06064> #  Project Number: 1474
06065> #  Date        : 2021/Oct/18
06066> #  Modeller    : J.Burnett, P.Eng.
06067> #  Updated     : 2022/Dec/13 [LP]
06068> #  Company     : J.F. Sabourin and Associates
06069> #  License #   : 2582634
06070> #*********************************************************************************************************
06071> # Ottawa International Airport (1967 - 2003)
06072> R0102:C00002-------------------------------------------------------------------------------------------
06073>   *  READ AES DATA
06074>       [Filename  = YOW_1967_2007.123                                          ]
06075>       [Start_date= 2002.0101: End_date= 2002.1231]
06076>       {DT= 60.min: Length= 5088.hrs: WetHrs=  304: DryHrs= 4784: PTOT= 551.50}
06077>       Maximum average rainfall intensities over
06078>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
06079>        45.00    26.75    18.40     9.48     4.74     2.48     2.08     1.56     1.04    mm/hr
06080>        45.00    53.50    55.20    56.90    56.90    59.50    74.90    74.90    74.90    mm
06081>       20020627 20020627 20020627 20020627 20020627 20020627 20020627 20020628 20020629  date
06082>       Number of rainfall events per following interevent time
06083>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
06084>          100       83       78       56       47       41       36       34       25
06085>       Number of events with at least the following durations
06086>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
06087>          100       59       33       13        5        0        0        0        0
06088> R0102:C00003-------------------------------------------------------------------------------------------
06089>      COMPUTE API
06090>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
06091>       {APImax=114.06: APIavg= 26.37: APImin=  4.40}
06092> #*********************************************************************************************************
06093> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
06094> #*********************************************************************************************************
06095> R0102:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06096>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .978 2002.0627_14:00  331.06 .600     .000
06097>       [XIMP=.66:TIMP=.71]
06098>       [LOSS= 2 :CN= 71.0]
06099>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06100>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
06101>       [IaRECimp=   1.50: IaRECper=   6.00]
06102>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06103> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
06104> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06105> # Total Volume provided by LID  - 179 m³
06106> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06107> R0102:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06108>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .978 2002.0627_14:00  331.06  n/a     .000
06109>                   out <=    5.0 01:W1-LID         1.68     .001 2002.0412_23:20  331.07  n/a     .000
06110>             overflow <=    5.0 03:W1-LID-Out     7.24     .954 2002.0627_14:00  331.06  n/a     .000
06111>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2397E+01  m3, N-Ovf=   79, TotDurOvf=  141.hrs}
06112> R0102:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06113>     CONTINUOUS STANDHYD   5.0 01:W2            10.75    1.171 2002.0627_14:00  327.38 .594     .000
06114>       [XIMP=.65:TIMP=.70]
06115>       [LOSS= 2 :CN= 71.0]
06116>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06117>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
06118>       [IaRECimp=   1.50: IaRECper=   6.00]
06119>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06120> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
06121> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06122> # Total Volume provided by LID  - 200 m³
06123> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06124> R0102:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06125>     ROUTE RESERVOIR ->    5.0 02:W2            10.75    1.171 2002.0627_14:00  327.38  n/a     .000
06126>                   out <=    5.0 01:W2-LID         1.89     .001 2002.0412_23:20  327.38  n/a     .000
06127>             overflow <=    5.0 03:W2-LID-Out     8.86    1.140 2002.0627_14:00  327.38  n/a     .000
06128>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.2899E+01  m3, N-Ovf=   85, TotDurOvf=  143.hrs}
06129> R0102:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06130>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .669 2002.0627_14:00  290.95 .528     .000
06131>       [XIMP=.53:TIMP=.63]
06132>       [LOSS= 2 :CN= 71.0]
06133>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06134>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
06135>       [IaRECimp=   1.50: IaRECper=   6.00]
06136>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06137> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
06138> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06139> # Total Volume provided by LID  - 96 m³
06140> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06141> R0102:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
```

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06142>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .669 2002.0627_14:00  290.95  n/a     .000
06143>                   out <=    5.0 01:W3-LID         1.00     .001 2002.0412_23:15  290.96  n/a     .000
06144>              overflow <=    5.0 03:W3-LID-Out     5.30     .644 2002.0627_14:00  290.95  n/a     .000
06145>       {MxStoUsed=.9599E-02  m3, TotOvfVol=.1541E+01  m3, N-Ovf=   87, TotDurOvf=  146.hrs}
06146> R0102:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06147>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .882 2002.0627_14:00  305.09 .553     .000
06148>       [XIMP=.57:TIMP=.67]
06149>       [LOSS= 2 :CN= 71.0]
06150>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06151>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
06152>       [IaRECimp=   1.50: IaRECper=   6.00]
06153>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06154> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
06155> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06156> # Total Volume provided by LID  - 131 m³
06157> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06158> R0102:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06159>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .882 2002.0627_14:00  305.09  n/a     .000
06160>                   out <=    5.0 01:W4-LID         1.32     .001 2002.0412_23:15  305.09  n/a     .000
06161>              overflow <=    5.0 03:W4-LID-Out     6.86     .853 2002.0627_14:00  305.09  n/a     .000
06162>       {MxStoUsed=.1310E-01  m3, TotOvfVol=.2094E+01  m3, N-Ovf=   82, TotDurOvf=  147.hrs}
06163> R0102:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06164>     ADD HYD               5.0 02:W1             8.92     .978 2002.0627_14:00  331.06  n/a     .000
06165>                     +     5.0 02:W2            10.75    1.171 2002.0627_14:00  327.38  n/a     .000
06166>                     +     5.0 02:W3             6.30     .669 2002.0627_14:00  290.95  n/a     .000
06167>                     +     5.0 02:W4             8.18     .882 2002.0627_14:00  305.09  n/a     .000
06168>                   SUM=    5.0 01:BCD-PH3       34.15    3.700 2002.0627_14:00  316.28  n/a     .000
06169> R0102:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06170>     ADD HYD               5.0 02:W1-LID-Out     7.24     .954 2002.0627_14:00  331.06  n/a     .000
06171>                     +     5.0 02:W2-LID-Out     8.86    1.140 2002.0627_14:00  327.38  n/a     .000
06172>                     +     5.0 02:W3-LID-Out     5.30     .644 2002.0627_14:00  290.95  n/a     .000
06173>                     +     5.0 02:W4-LID-Out     6.86     .853 2002.0627_14:00  305.09  n/a     .000
06174>                   SUM=    5.0 01:BCD-PH3-LI    28.26    3.592 2002.0627_14:00  316.08  n/a     .000
06175> #*******************************************************************************************************
06176> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
06177> #*******************************************************************************************************
06178> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
06179> #*******************************************************************************************************
06180> R0102:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06181>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92    1.105 2002.0627_14:00  401.51 .728     .000
06182>       [XIMP=.66:TIMP=.71]
06183>       [LOSS= 2 :CN=100.0]
06184>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06185>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
06186>       [IaRECimp=   1.50: IaRECper=   6.00]
06187>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06188> R0102:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06189>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75    1.330 2002.0627_14:00  399.97 .725     .000
06190>       [XIMP=.65:TIMP=.70]
06191>       [LOSS= 2 :CN=100.0]
06192>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06193>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
06194>       [IaRECimp=   1.50: IaRECper=   6.00]
06195>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06196> R0102:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06197>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .781 2002.0627_14:00  390.15 .707     .000
06198>       [XIMP=.53:TIMP=.63]
06199>       [LOSS= 2 :CN=100.0]
06200>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06201>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
06202>       [IaRECimp=   1.50: IaRECper=   6.00]
06203>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06204> R0102:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06205>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18    1.013 2002.0627_14:00  396.36 .719     .000
06206>       [XIMP=.57:TIMP=.67]
06207>       [LOSS= 2 :CN=100.0]
06208>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06209>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
06210>       [IaRECimp=   1.50: IaRECper=   6.00]
06211>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06212> R0102:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06213>     ADD HYD               5.0 02:INF-W1         8.92    1.105 2002.0627_14:00  401.51  n/a     .000
06214>                     +     5.0 02:INF-W2        10.75    1.330 2002.0627_14:00  399.97  n/a     .000
06215>                     +     5.0 02:INF-W3         6.30     .781 2002.0627_14:00  390.15  n/a     .000
06216>                     +     5.0 02:INF-W4         8.18    1.013 2002.0627_14:00  396.36  n/a     .000
06217>                   SUM=    5.0 01:INF-BCD-PH    34.15    4.228 2002.0627_14:00  397.70  n/a     .000
06218> ###############################################################################
06219> # CONTINUOUS RAINFALL DATA
06220> ###############################################################################
06221>   ** END OF RUN :  102
06222>
06223> ***********************************************************************************************
06224>
06225>
06226>
06227>
06228>
06229>  RUN#:COMMAND#
06230> R0103:C00001------------------------------------------------------------------------------------
```

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06231>      START
06232>       [TZERO =    .00 hrs on 20030101]
06233>       [METOUT=   2    (1=imperial, 2=metric output)]
06234>       [NSTORM=   0 ]
06235>       [NRUN  = 0103 ]
06236> #*******************************************************************************************************************
06237> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
06238> #*******************************************************************************************************************
06239> #  Project Name: Barrhaven Conservancy Development
06240> #  Project Number: 1474
06241> #  Date        : 2021/Oct/18
06242> #  Modeller    : J.Burnett, P.Eng.
06243> #  Updated     : 2022/Dec/13 [LP]
06244> #  Company     : J.F. Sabourin and Associates
06245> #  License #   : 2582634
06246> #*******************************************************************************************************************
06247> # Ottawa International Airport (1967 - 2003)
06248> R0103:C00002-------------------------------------------------------------------------------------
06249>   *  READ AES DATA
06250>       [Filename  = YOW_1967_2007.123                                          ]
06251>       [Start_date= 2003.0101: End_date= 2003.1231]
06252>       {DT= 60.min: Length= 4440.hrs: WetHrs=  406: DryHrs= 4034: PTOT= 554.60}
06253>       Maximum average rainfall intensities over
06254>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
06255>        15.10    10.00     7.13     4.28     3.18     1.86     1.25      .94      .81    mm/hr
06256>        15.10    20.00    21.40    25.70    38.20    44.60    44.90    45.10    58.30    mm
06257>       20030711 20030711 20030711 20030711 20031021 20031015 20030525 20030526 20030527  date
06258>       Number of rainfall events per following interevent time
06259>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
06260>          145      127      109       86       64       45       38       25       15
06261>       Number of events with at least the following durations
06262>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
06263>          144       80       43       13        5        1        0        0        0
06264> R0103:C00003-------------------------------------------------------------------------------------
06265>      COMPUTE API
06266>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
06267>       {APImax= 72.10: APIavg= 28.54: APImin=  4.70}
06268> #*******************************************************************************************************************
06269> #                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITION
06270> #*******************************************************************************************************************
06271> R0103:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06272>     CONTINUOUS STANDHYD   5.0 01:W1             8.92     .297 2003.0711_17:00  305.89 .552     .000
06273>       [XIMP=.66:TIMP=.71]
06274>       [LOSS= 2 :CN= 71.0]
06275>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06276>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
06277>       [IaRECimp=   1.50: IaRECper=   6.00]
06278>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06279> # LID for Outlet W1 (26 catchbasins, 30 m long trench each)
06280> # Assumed 780 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06281> # Total Volume provided by LID  - 179 m³
06282> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06283> R0103:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06284>     ROUTE RESERVOIR ->    5.0 02:W1             8.92     .297 2003.0711_17:00  305.89  n/a     .000
06285>                   out <=    5.0 01:W1-LID         2.30     .001 2003.0501_10:25  305.90  n/a     .000
06286>              overflow <=    5.0 03:W1-LID-Out     6.62     .292 2003.0711_17:00  305.89  n/a     .000
06287>      {MxStoUsed=.1790E-01  m3, TotOvfVol=.2026E+01  m3, N-Ovf=   97, TotDurOvf=  161.hrs}
06288> R0103:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06289>     CONTINUOUS STANDHYD   5.0 01:W2            10.75     .350 2003.0711_17:00  302.35 .545     .000
06290>       [XIMP=.65:TIMP=.70]
06291>       [LOSS= 2 :CN= 71.0]
06292>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06293>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
06294>       [IaRECimp=   1.50: IaRECper=   6.00]
06295>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06296> # LID for Outlet W2 (29 catchbasins, 30 m long trench each)
06297> # Assumed 870 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06298> # Total Volume provided by LID  - 200 m³
06299> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06300> R0103:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06301>     ROUTE RESERVOIR ->    5.0 02:W2            10.75     .350 2003.0711_17:00  302.35  n/a     .000
06302>                   out <=    5.0 01:W2-LID         2.62     .001 2003.0501_10:15  302.34  n/a     .000
06303>              overflow <=    5.0 03:W2-LID-Out     8.13     .345 2003.0711_17:00  302.35  n/a     .000
06304>      {MxStoUsed=.2000E-01  m3, TotOvfVol=.2457E+01  m3, N-Ovf=  103, TotDurOvf=  166.hrs}
06305> R0103:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06306>     CONTINUOUS STANDHYD   5.0 01:W3             6.30     .194 2003.0711_17:00  265.05 .478     .000
06307>       [XIMP=.53:TIMP=.63]
06308>       [LOSS= 2 :CN= 71.0]
06309>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06310>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
06311>       [IaRECimp=   1.50: IaRECper=   6.00]
06312>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06313> # LID for Outlet W3 (14 catchbasins, 30 m long trench each)
06314> # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06315> # Total Volume provided by LID  - 96 m³
06316> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06317> R0103:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06318>     ROUTE RESERVOIR ->    5.0 02:W3             6.30     .194 2003.0711_17:00  265.05  n/a     .000
06319>                   out <=    5.0 01:W3-LID         1.40     .001 2003.0501_ 5:30  265.06  n/a     .000
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```
06320>           overflow <=    5.0 03:W3-LID-Out     4.90     .189 2003.0711_17:00  265.05  n/a     .000
06321>      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1298E+01  m3, N-Ovf=  101, TotDurOvf=  167.hrs}
06322> R0103:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06323>     CONTINUOUS STANDHYD   5.0 01:W4             8.18     .260 2003.0711_17:00  279.28 .504     .000
06324>       [XIMP=.57:TIMP=.67]
06325>       [LOSS= 2 :CN= 71.0]
06326>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06327>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
06328>       [IaRECimp=   1.50: IaRECper=   6.00]
06329>       [SMIN= 41.38: SMAX=275.84: SK= .030]
06330> # LID for Outlet W4 (26 catchbasins, 30 m long trench each)
06331> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
06332> # Total Volume provided by LID  - 131 m³
06333> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
06334> R0103:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06335>     ROUTE RESERVOIR ->    5.0 02:W4             8.18     .260 2003.0711_17:00  279.28  n/a     .000
06336>                 out <=    5.0 01:W4-LID         1.85     .001 2003.0501_ 5:10  279.28  n/a     .000
06337>           overflow <=    5.0 03:W4-LID-Out     6.33     .254 2003.0711_17:00  279.28  n/a     .000
06338>      {MxStoUsed=.1309E-01  m3, TotOvfVol=.1769E+01  m3, N-Ovf=  103, TotDurOvf=  169.hrs}
06339> R0103:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06340>     ADD HYD               5.0 02:W1             8.92     .297 2003.0711_17:00  305.89  n/a     .000
06341>                     +     5.0 02:W2            10.75     .350 2003.0711_17:00  302.35  n/a     .000
06342>                     +     5.0 02:W3             6.30     .194 2003.0711_17:00  265.05  n/a     .000
06343>                     +     5.0 02:W4             8.18     .260 2003.0711_17:00  279.28  n/a     .000
06344>                   SUM=    5.0 01:BCD-PH3       34.15    1.100 2003.0711_17:00  290.87  n/a     .000
06345> R0103:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06346>     ADD HYD               5.0 02:W1-LID-Out     6.62     .292 2003.0711_17:00  305.89  n/a     .000
06347>                     +     5.0 02:W2-LID-Out     8.13     .345 2003.0711_17:00  302.35  n/a     .000
06348>                     +     5.0 02:W3-LID-Out     4.90     .189 2003.0711_17:00  265.05  n/a     .000
06349>                     +     5.0 02:W4-LID-Out     6.33     .254 2003.0711_17:00  279.28  n/a     .000
06350>                   SUM=    5.0 01:BCD-PH3-LI    25.98    1.080 2003.0711_17:00  290.60  n/a     .000
06351> #*************************************************************************************************************
06352> #                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDIT
06353> #*************************************************************************************************************
06354> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
06355> #*************************************************************************************************************
06356> R0103:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06357>     CONTINUOUS STANDHYD   5.0 01:INF-W1         8.92     .361 2003.0711_17:00  370.85 .669     .000
06358>       [XIMP=.66:TIMP=.71]
06359>       [LOSS= 2 :CN=100.0]
06360>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06361>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 244.:MNI=.013:SCI=   .0]
06362>       [IaRECimp=   1.50: IaRECper=   6.00]
06363>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06364> R0103:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06365>     CONTINUOUS STANDHYD   5.0 01:INF-W2        10.75     .433 2003.0711_17:00  369.11 .666     .000
06366>       [XIMP=.65:TIMP=.70]
06367>       [LOSS= 2 :CN=100.0]
06368>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06369>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 268.:MNI=.013:SCI=   .0]
06370>       [IaRECimp=   1.50: IaRECper=   6.00]
06371>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06372> R0103:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06373>     CONTINUOUS STANDHYD   5.0 01:INF-W3         6.30     .254 2003.0711_17:00  356.89 .644     .000
06374>       [XIMP=.53:TIMP=.63]
06375>       [LOSS= 2 :CN=100.0]
06376>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06377>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 205.:MNI=.013:SCI=   .0]
06378>       [IaRECimp=   1.50: IaRECper=   6.00]
06379>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06380> R0103:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06381>     CONTINUOUS STANDHYD   5.0 01:INF-W4         8.18     .330 2003.0711_17:00  363.86 .656     .000
06382>       [XIMP=.57:TIMP=.67]
06383>       [LOSS= 2 :CN=100.0]
06384>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
06385>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 234.:MNI=.013:SCI=   .0]
06386>       [IaRECimp=   1.50: IaRECper=   6.00]
06387>       [SMIN=  1.39: SMAX=  9.24: SK= .030]
06388> R0103:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
06389>     ADD HYD               5.0 02:INF-W1         8.92     .361 2003.0711_17:00  370.85  n/a     .000
06390>                     +     5.0 02:INF-W2        10.75     .433 2003.0711_17:00  369.11  n/a     .000
06391>                     +     5.0 02:INF-W3         6.30     .254 2003.0711_17:00  356.89  n/a     .000
06392>                     +     5.0 02:INF-W4         8.18     .330 2003.0711_17:00  363.86  n/a     .000
06393>                   SUM=    5.0 01:INF-BCD-PH    34.15    1.378 2003.0711_17:00  366.05  n/a     .000
06394> ##############################################################################
06395> # CONTINUOUS RAINFALL DATA
06396> ##############################################################################
06397> R0103:C00002-------------------------------------------------------------------------------------------
06398>     FINISH
06399> -------------------------------------------------------------------------------------------------------
06400> *******************************************************************************************************
06401>      WARNINGS / ERRORS / NOTES
06402>      -------------------------
06403> R0067:C00002  READ AES DATA
06404> *** WARNING: Requested start date is less than start date in file.
06405> *** WARNING: Missing rainfall increments were set to 0.
06406> *** WARNING: Missing rainfall increments were set to 0.
06407> *** WARNING: Missing rainfall increments were set to 0.
06408> *** WARNING: Missing rainfall increments were set to 0.
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06409> *** WARNING: Missing rainfall increments were set to 0.
06410> *** WARNING: Missing rainfall increments were set to 0.
06411> *** WARNING: Missing rainfall increments were set to 0.
06412> *** WARNING: Missing rainfall increments were set to 0.
06413> *** WARNING: Missing rainfall increments were set to 0.
06414> *** WARNING: Missing rainfall increments were set to 0.
06415> *** WARNING: Requested start date is less than start date in file.
06416> *** WARNING: Missing rainfall increments were set to 0.
06417> *** WARNING: Missing rainfall increments were set to 0.
06418> *** WARNING: Missing rainfall increments were set to 0.
06419> *** WARNING: Missing rainfall increments were set to 0.
06420> *** WARNING: Missing rainfall increments were set to 0.
06421> *** WARNING: Missing rainfall increments were set to 0.
06422> *** WARNING: Missing rainfall increments were set to 0.
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06425> *** WARNING: Missing rainfall increments were set to 0.
06426> *** WARNING: Requested start date is less than start date in file.
06427> *** WARNING: Missing rainfall increments were set to 0.
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06430> *** WARNING: Requested start date is less than start date in file.
06431> *** WARNING: Missing rainfall increments were set to 0.
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06436> *** WARNING: Missing rainfall increments were set to 0.
06437> *** WARNING: Requested start date is less than start date in file.
06438> *** WARNING: Missing rainfall increments were set to 0.
06439> *** WARNING: Missing rainfall increments were set to 0.
06440> *** WARNING: Requested start date is less than start date in file.
06441> *** WARNING: Missing rainfall increments were set to 0.
06442> *** WARNING: Requested start date is less than start date in file.
06443> *** WARNING: Missing rainfall increments were set to 0.
06444> *** WARNING: Requested start date is less than start date in file.
06445> *** WARNING: Missing rainfall increments were set to 0.
06446> *** WARNING: Requested start date is less than start date in file.
06447> *** WARNING: Missing rainfall increments were set to 0.
06448> *** WARNING: Requested start date is less than start date in file.
06449> *** WARNING: Missing rainfall increments were set to 0.
06450>    Simulation ended on 2022-12-13     at 12:44:35
06451> ===============================================================================================
06452>
06453>
```

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WATER RESOURCES AND
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Ottawa. ON
Paris. ON
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Montréal. QC
Québec. QC

Attachment B

Water Budget Results

Table B1: BCD West - Pre Development Water Budget

Year	Total Rainfall		Evaporation		Runoff		Infiltration	
	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)
1967	386.9	132,126	196.7	67,170	67.6	23,082	122.6	41,875
1968	592.8	202,441	335.4	114,539	73.2	24,988	184.2	62,915
1969	570.3	194,757	336.6	114,949	60.0	20,487	173.7	59,322
1970	558.9	190,864	336.4	114,891	57.1	19,506	165.4	56,467
1971	522.1	178,297	340.3	116,206	43.0	14,698	138.8	47,393
1972	784.3	267,838	408.9	139,636	130.5	44,569	244.9	83,633
1973	744.9	254,383	407.2	139,072	96.4	32,910	241.3	82,401
1974	386.2	131,887	266.4	90,972	26.1	8,913	93.7	32,002
1975	535.5	182,873	316.0	107,911	58.0	19,800	161.5	55,162
1976	493.2	168,428	323.2	110,356	40.0	13,653	130.1	44,419
1977	677.8	231,469	393.9	134,531	76.2	26,033	207.6	70,906
1978	641.4	219,038	371.6	126,888	58.3	19,920	211.5	72,231
1979	866.5	295,910	417.2	142,481	151.6	51,785	297.6	101,644
1980	622	212,413	367.9	125,621	63.3	21,607	190.9	65,186
1981	936.4	319,781	476.7	162,793	189.6	64,759	270.1	92,229
1982	596.1	203,568	367.4	125,471	51.2	17,471	177.5	60,626
1983	587.5	200,631	370.2	126,423	55.9	19,090	161.4	55,118
1984	459.4	156,885	252.2	86,123	53.9	18,421	153.3	52,342
1985	559.9	191,206	297.6	101,634	57.0	19,472	205.3	70,100
1986	849.4	290,070	431.3	147,303	156.2	53,339	261.9	89,429
1987	640.1	218,594	399.8	136,542	73.4	25,080	166.8	56,972
1988	643.8	219,858	388.1	132,533	71.8	24,509	183.9	62,816
1989	523.2	178,673	325.5	111,162	45.0	15,357	152.7	52,154
1990	727.8	248,544	415.9	142,033	91.7	31,302	220.2	75,209
1991	556	189,874	358.1	122,295	49.9	17,041	148.0	50,539
1992	732.8	250,251	406.4	138,796	101.6	34,707	224.7	76,749
1993	721.3	246,324	457.0	156,079	67.7	23,116	196.6	67,129
1994	540.2	184,478	312.8	106,821	64.5	22,010	163.0	55,647
1995	538.5	183,898	211.2	72,108	166.6	56,908	160.7	54,882
1996	512.2	174,916	317.1	108,303	50.4	17,215	144.7	49,398
1997	433.2	147,938	271.6	92,758	30.5	10,399	131.1	44,781
1998	440.3	150,362	277.2	94,664	35.5	12,130	127.6	43,569
1999	424.4	144,933	252.7	86,294	36.4	12,437	135.3	46,202
2000	535.9	183,010	321.3	109,707	60.7	20,719	154.0	52,584
2002	551.5	188,337	257.5	87,923	109.7	37,459	184.4	62,956
2003	554.6	189,396	302.7	103,379	81.9	27,959	170.0	58,058
Minimum	386.2	131,887	196.7	67,170	26.1	8,913	93.7	32,002
Maximum	936.4	319,781	476.7	162,793	189.6	64,759	297.6	101,644
Average	595.8	203,451	341.3	116,566	75.1	25,635	179.4	61,251
Percentage	100.0%	100.0%	57.3%	57.3%	12.6%	12.6%	30.1%	30.1%

Table B2: BCD Phase 3 - Post Development Water Budget - Without LIDs

Year	Total Rainfall		Runoff (No Infiltration)		Evaporation		Runoff		Infiltration	
	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)
1967	386.9	132,126	268.53	91,703	118.4	40,423	214.6	73,279	54.0	18,424
1968	592.8	202,441	387.03	132,171	205.8	70,270	304.3	103,908	82.8	28,263
1969	570.3	194,757	356.79	121,844	213.5	72,914	278.5	95,098	78.3	26,746
1970	558.9	190,864	348.80	119,115	210.1	71,749	273.0	93,223	75.8	25,893
1971	522.1	178,297	308.29	105,281	213.8	73,016	243.4	83,111	64.9	22,170
1972	784.3	267,838	536.57	183,239	247.7	84,600	427.1	145,858	109.5	37,381
1973	744.9	254,383	487.97	166,642	256.9	87,742	380.3	129,859	107.7	36,783
1974	386.2	131,887	217.52	74,283	168.7	57,604	172.6	58,957	44.9	15,327
1975	535.5	182,873	343.90	117,442	191.6	65,431	269.0	91,877	74.9	25,565
1976	493.2	168,428	287.00	98,011	206.2	70,417	226.3	77,264	60.8	20,746
1977	677.8	231,469	440.41	150,400	237.4	81,069	345.3	117,920	95.1	32,480
1978	641.4	219,038	423.01	144,458	218.4	74,580	327.0	111,671	96.0	32,787
1979	866.5	295,910	614.07	209,705	252.4	86,205	483.3	165,030	130.8	44,675
1980	622	212,413	402.39	137,416	219.6	74,997	314.9	107,535	87.5	29,881
1981	936.4	319,781	643.29	219,684	293.1	100,097	522.0	178,266	121.3	41,417
1982	596.1	203,568	382.43	130,600	213.7	72,968	299.9	102,423	82.5	28,177
1983	587.5	200,631	364.45	124,460	223.1	76,172	288.9	98,659	75.6	25,800
1984	459.4	156,885	309.41	105,664	150.0	51,222	240.7	82,182	68.8	23,482
1985	559.9	191,206	387.27	132,253	172.6	58,953	295.9	101,033	91.4	31,220
1986	849.4	290,070	589.63	201,359	259.8	88,711	473.1	161,574	116.5	39,785
1987	640.1	218,594	393.29	134,309	246.8	84,286	315.3	107,682	78.0	26,627
1988	643.8	219,858	399.91	136,569	243.9	83,288	316.5	108,085	83.4	28,485
1989	523.2	178,673	322.82	110,243	200.4	68,430	252.4	86,191	70.4	24,052
1990	727.8	248,544	466.26	159,228	261.5	89,316	367.2	125,395	99.1	33,832
1991	556	189,874	340.77	116,373	215.2	73,501	271.7	92,782	69.1	23,591
1992	732.8	250,251	481.05	164,279	251.8	85,973	380.0	129,777	101.0	34,502
1993	721.3	246,324	446.40	152,446	274.9	93,878	355.2	121,287	91.2	31,158
1994	540.2	184,478	348.80	119,115	191.4	65,363	274.1	93,605	74.7	25,510
1995	538.5	183,898	409.85	139,964	128.7	43,934	340.3	116,216	69.5	23,748
1996	512.2	174,916	320.53	109,461	191.7	65,455	253.6	86,601	66.9	22,860
1997	433.2	147,938	274.18	93,632	159.0	54,305	212.7	72,623	61.5	21,009
1998	440.3	150,362	267.12	91,221	173.2	59,141	208.3	71,128	58.8	20,094
1999	424.4	144,933	273.94	93,551	150.5	51,382	211.1	72,087	62.9	21,463
2000	535.9	183,010	333.24	113,801	202.7	69,208	263.7	90,047	69.6	23,755
2002	551.5	188,337	397.70	135,815	153.8	52,523	316.3	108,010	81.4	27,805
2003	554.6	189,396	366.05	125,006	188.6	64,390	290.9	99,332	75.2	25,674
Minimum	386.2	131,887	218	74283	118.4	40,423	172.6	58,957	44.9	15,327
Maximum	936.4	319,781	643	219684	293.1	100,097	522.0	178,266	130.8	44,675
Average	595.8	203,451	387	132243	208.5	71,209	305.8	104,433	81.4	27,810
Percentage	100.0%	100.0%	65.0%	65.0%	35.0%	35.0%	51.3%	51.3%	13.7%	13.7%

Table B3: BCD Phase 3- Post Development Water Budget - With LIDs

Year	Total Rainfall		Runoff (No Infiltration)		Evaporation		Runoff		Infiltration	
	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)
1967	386.9	132,126	268.53	91,703	118.4	40,423	173.2	59,140	95.4	32,563
1968	592.8	202,441	387.03	132,171	205.8	70,270	225.8	77,115	161.2	55,056
1969	570.3	194,757	356.79	121,844	213.5	72,914	206.4	70,498	150.4	51,345
1970	558.9	190,864	348.80	119,115	210.1	71,749	202.9	69,296	145.9	49,820
1971	522.1	178,297	308.29	105,281	213.8	73,016	171.3	58,487	137.0	46,794
1972	784.3	267,838	536.57	183,239	247.7	84,600	341.2	116,511	195.4	66,728
1973	744.9	254,383	487.97	166,642	256.9	87,742	297.7	101,672	190.2	64,970
1974	386.2	131,887	217.52	74,283	168.7	57,604	116.4	39,738	101.2	34,545
1975	535.5	182,873	343.90	117,442	191.6	65,431	202.8	69,259	141.1	48,182
1976	493.2	168,428	287.00	98,011	206.2	70,417	160.5	54,803	126.5	43,208
1977	677.8	231,469	440.41	150,400	237.4	81,069	258.3	88,201	182.1	62,199
1978	641.4	219,038	423.01	144,458	218.4	74,580	244.6	83,540	178.4	60,918
1979	866.5	295,910	614.07	209,705	252.4	86,205	393.5	134,397	220.5	75,308
1980	622	212,413	402.39	137,416	219.6	74,997	236.4	80,724	166.0	56,692
1981	936.4	319,781	643.29	219,684	293.1	100,097	417.4	142,556	225.8	77,128
1982	596.1	203,568	382.43	130,600	213.7	72,968	217.8	74,363	164.7	56,237
1983	587.5	200,631	364.45	124,460	223.1	76,172	207.7	70,933	156.7	53,527
1984	459.4	156,885	309.41	105,664	150.0	51,222	186.7	63,743	122.8	41,920
1985	559.9	191,206	387.27	132,253	172.6	58,953	229.9	78,517	157.4	53,736
1986	849.4	290,070	589.63	201,359	259.8	88,711	378.9	129,400	210.7	71,959
1987	640.1	218,594	393.29	134,309	246.8	84,286	231.9	79,186	161.4	55,123
1988	643.8	219,858	399.91	136,569	243.9	83,288	232.7	79,451	167.3	57,118
1989	523.2	178,673	322.82	110,243	200.4	68,430	183.8	62,778	139.0	47,465
1990	727.8	248,544	466.26	159,228	261.5	89,316	277.7	94,826	188.6	64,402
1991	556	189,874	340.77	116,373	215.2	73,501	189.5	64,712	151.3	51,661
1992	732.8	250,251	481.05	164,279	251.8	85,973	289.3	98,785	191.8	65,494
1993	721.3	246,324	446.40	152,446	274.9	93,878	252.5	86,242	193.9	66,203
1994	540.2	184,478	348.80	119,115	191.4	65,363	208.5	71,196	140.3	47,919
1995	538.5	183,898	409.85	139,964	128.7	43,934	289.2	98,748	120.7	41,215
1996	512.2	174,916	320.53	109,461	191.7	65,455	186.1	63,558	134.4	45,903
1997	433.2	147,938	274.18	93,632	159.0	54,305	151.9	51,875	122.3	41,757
1998	440.3	150,362	267.12	91,221	173.2	59,141	151.9	51,872	115.2	39,350
1999	424.4	144,933	273.94	93,551	150.5	51,382	161.8	55,253	112.1	38,297
2000	535.9	183,010	333.24	113,801	202.7	69,208	199.3	68,073	133.9	45,729
2002	551.5	188,337	397.70	135,815	153.8	52,523	261.6	89,324	136.1	46,490
2003	554.6	189,396	366.05	125,006	188.6	64,390	221.1	75,498	145.0	49,508
Minimum	386.2	131,887	218	74283	118.4	40,423	116.4	39,738	95.4	32,563
Maximum	936.4	319,781	643	219684	293.1	100,097	417.4	142,556	225.8	77,128
Average	595.8	203,451	387	132243	208.5	71,209	232.2	79,285	155.1	52,957
Percentage	100.0%	100.0%	65.0%	65.0%	35.0%	35.0%	39.0%	39.0%	26.0%	26.0%

Table B4- LID Infiltration Summary

LID	Area (ha)	Average Annual Infiltration Volume (m^3/Yr)	Average Annual Infiltration Volume (mm/Yr)
W1	8.92	7,436	83
W2	10.75	8,356	78
W3	6.3	3,925	62
W4	8.18	5,431	66
Total/Average	**34.15**	**25,149**	**72**

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March 08, 2021 Project Number: 1474

David Schaeffer Engineering Ltd
120 Iber Road, Unit 103
Ottawa, Ontario
K2S 1E9

Attention: **Steve Pichette, P.Eng.**

Subject: **Review of Quantity Control Requirement for Jock River-Reach One**

Introduction

Phase 2 of the Barrhaven Conservancy Development (aka Conservancy East) is located in Barrhaven, Ontario, north of the Jock River, south of the Fraser Clarke Creek and east of the Foster Creek. The proposed development is approximately 59.26 ha that will primarily comprise of single and townhouse residential lots. As a part of the City of Ottawa's review of the proposed development draft plan of Phase 2 of the Barrhaven Conservancy Development, submitted in December 2020, it is proposed that flood quantity control measures will not need to be implemented as a part of this development. This assumption is based on the work completed by Stantec in June 2007 in the "Jock River Reach One Subwatershed Study" which concluded that for future developments within Reach 1 of the Jock River: "No quantity control storage is required for flood control purposes as the hydrograph from the subwatershed will peak before the upstream peak in the Jock River" and that "No erosion control storage is required to maintain the predevelopment in-stream erosion condition". Although this study did not consider the future development of the Barrhaven Conservancy Lands, and as such the modelling completed by Stantec has been updated by JFSA to reflect these changes. The following memo outlines data sources, assessed scenarios, assumptions, and conclusions of this independent Jock River Reach One study.

It is noted that RVCA is currently engaging in a formal update/review of the Jock River Reach One Subwatershed Study, with the findings of this study having the potential to affect the above-noted design criteria. While that study is underway J.F. Sabourin and Associates Inc. (JFSA) has completed an independent Jock River - Reach One study to re-assess/confirm that the assumptions presented in the original 2007 study by Stantec are still valid, as any changes to this conclusion could greatly impact the current BCDC Phase 2 development plan.

Background Data

The following outlines all the model and data sources used in this analysis:

- *"Jock River Floodplain Mapping Report"*, (2005 - PSR Group Ltd. & JFSA)
- *"Jock River Reach One Subwatershed Study Final Report",* (2007 – Stantec)
- *"Corrigan Stormwater Management Facility Stormwater Management Report and Design Brief"*, (2010 - IBI Group)
- *"Citi Gate, Highway 416 Employment Lands, Servicing Study and Stormwater Management Report (O'Keefe SWM)",* (2012 – Novatech)
- *"Foster Stormwater Management Facility, Environmental Study Report",* (2013 - CH2MHill)
- *"Todd Pond Model Keeper Analysis (Re-Assessment of Existing System Capacity)"*, (2015 – JFSA)

- *"CitiGate 416 Corporate Campus Detailed Servicing and Stormwater Management Report (Phase 1)"*, (2015 – Novatech)
- *"Kennedy-Burnett Stormwater Management Facility Retrofit, Detailed Design Report"*, (2020 – Novatech)
- *"Half Moon Bay South / Addendum to April 2015 Todd Pond Model Keeper Analysis, Re-Assessment of Existing System Capacity Report" (2020 - JFSA).*

Model Development/Scenarios

The following section outlines the various hydrologic model scenarios developed as a part of this work, with a brief description of the data sources used for each scenario and how they have been incorporated into the existing Jock River subwatershed hydrologic model.

Model 1 - Jock River Floodplain Model – JFSA, 2005

This hydrologic model was developed as a part of the floodplain mapping study of the Jock River completed in 2005. The hydrologic model of the Jock River was developed by JFSA using SWMHYMO, with independent models developed to simulate both summer and spring events. Both models were calibrated to field measured flows, recorded at the Water Survey Canada Flow Gauge at Moodie Drive. These models function as the basis for which all future models (both by JFSA and others) have been built on. Refer to Figure 1 (JFSA, 2005) for an overview of the subcatchments for reach one in this model, with full SWMHYMO input and summary files provided in Attachment A.

Model 2 – Jock River Reach One Model – Stantec, 2007

The hydrologic analysis completed by Stantec in 2007 built upon the JFSA 2005 floodplain mapping modelling. As a part of the Stantec work, the lower reach of the Jock River (3,176 ha) which was represented as a single subcatchment in the 2005 study was subdivided into thirteen (13) subcatchments to better delineate the drainage areas to the various tributaries (O'Keefe, Fraser, Foster, Todd, Corrigan and Clarke) and to also provide a better representation of the existing development areas (Kennedy Burnett, Chapman Mills, Jockvale and Hearts Desire). The remaining natural/undeveloped areas within the Jock River corridor were subdivided into three smaller (3) sub-catchments. Refer to Figure 2 (Stantec, 2007) for an overview of the subcatchments for reach one in this model, with full SWMHYMO input and summary files provided in Attachment B.

As mentioned above from this study, it was concluded that developments located in the lower reaches of the Jock River do not require any quantity control storage for flood control purposes as the hydrograph from the subwatershed will peak before the upstream peak in the Jock River and that no erosion control storage is required to maintain the pre-development in-stream erosion conditions.

Model 3 – Jock River Reach One Model Update – JFSA, 2021

As a part of the study outlined in this report, the 2007 Stantec SWMHYMO model of the Jock River was updated to reflect (as best as possible with the available information) proposed, approved and potential future developments, since the 2007 study.

At the time of the 2007 study, it was assumed that the floodplain of reach one of the Jock River (from Highway 416 to Greenbank Road) would not be filled and developed. Furthermore, the assumptions that were made in 2007 for the total imperviousness of future developments are not reflective of the actual constructed conditions observed in 2021; for example, the total impervious area for the Todd drainage area was assumed to be 43% in the 2007 study, while based on latest aerial photography it appears that the imperviousness for this area is closer to 58.5%). Additionally, SWM quantity controls were implemented in some tributaries within Reach One (e.g., O'Keefe, Foster and Kennedy-Burnett) to respect the hydraulic capacity of the local watercourses or other existing hydraulic constraints.

As outlined in the Background Data section of this memo, data from various reports and studies were collected and used to update Stantec's 2007 model, to best reflect existing conditions and known approved and planned development projects. As such, the thirteen (13) subcatchments of the 2007 Stantec model have been further discretized into one hundred ten (110) subcatchments, with numerous additional major system storage, SWM Ponds, and channel routing commands added. This updated existing condition model is reflective of current 2021 conditions, which assumes that the lower Jock River floodplain is undeveloped. It should also be noted that only subcatchments downstream of Highway 416 have been updated as a part of this analysis. Updates to other catchments of the Jock River further upstream, such as the Monahan Drain, Hobbs Creek, King Creek, and development areas in Richmond, where additional new information may be available, have not been included in the model updates at this time. Refer to Figure 3 for an overview of the subcatchments for reach one in this model, with full SWMHYMO input and summary files been provided in Attachment C, detailed schematics of the subcatchments updated as a part of this study have been provided in Attachment F.

Note that Novatech's PCSWMM model of the Kennedy-Burnett area was used to create a detailed SWMHYMO model of the same area. In creating this SWMHYMO model it was found that the 100-year peak outflows from the Kennedy Burnett facility were 1.4 times higher than that reported in the Novatech PCSWMM model. While it is expected that different modelling software will produce slightly different results, this difference is significant and should be investigated further; although it is unlikely that this difference is expected to change the fundamental conclusions of this analysis.

Model 4A & 4B – Jock River Reach One Future Conditions (without and with quantity SWM controls) – JFSA, 2021

Two additional models (4A and 4B) were created (which built on model 3) to evaluate the impacts of developing portions of the lower Jock River floodplain (from Highway 416 to Greenbank Road). These lands make up approximately 156 ha and would include BCDC and other properties on the south side of the Jock River. Model 4A assumes that these lands would be developed without any SWM quantity controls and Model 4B assumes that the lands would be developed with SWM Post to Pre-development quantity controls. Refer to Figure 4 for an overview of the subcatchments for reach one in these models, with full SWMHYMO input and summary files for scenarios 4A and 4B provided in Attachment D & E, respectively.

Results

All hydrologic models were run using a 24 hours SCS storm for the 2-to-100-year events. Note that this analysis focuses on this particular rainfall event as for developed areas the summer rainfall events are more critical than the spring rainfall plus snowmelt conditions. Hence, only the summer peak flows have been summarized and compared for the various scenarios below, as the flow contributions from the developments in the lower Jock River under the spring rainfall + snowmelt event are negligible compared to the flows upstream from the greater Jock River. It is further noted that the same design storms were used in all models.

Peak flows at key locations along Reach One of the Jock River have been extracted from the various hydrologic models and provided in the following section. As a part of this analysis, 5 key locations on the Jock River have been selected to compare the simulated peak flows and are as follows: Highway 416, Borrisokane Road, Greenbank Road, Jockvale Road and the Jock River's confluence with the Rideau River. Note that for the older models (JFSA 2005 & Stantec 2007) results have only been provided at some locations, as these original models were not discretized to this higher level of detail. Additionally, the Stantec 2007 model did not assess flows on the Jock River for the 10- and 50-year events at any locations.

Table 1: Comparison of Summer Peak Flows (m^3/s) at Highway 416 (52483.00 ha)

Scenario	Return Period					
	2-Year	5- Year	10-Year	25-Year	50-Year	100-Year
Model 1: 2005 Floodplain Study	45.676	66.292	82.076	104.643	122.469	141.415
Model 2: Stantec 2007 Reach One Analysis	45.789	66.413	n/a	104.834	n/a	141.853
Model 3: Updated Model 2 to current/ approved conditions	46.294	67.222	83.235	106.109	124.249	143.580
Model 4A: Model 3 with BCDC & others w/o SWM	46.294	67.222	83.235	106.109	124.249	143.580
Model 4B: Model 3 with BCDC & others with SWM	46.294	67.222	83.235	106.109	124.249	143.580

From Table 1 above it is seen that the peak flows on the Jock River at Highway 416 for Models 3, 4A and 4B are higher than in Models 1 and 2. This is because the computational time step in the updated models was reduced from 5 - 10 minutes to 1 minute. This change was necessary to provide stable results in the various models, especially with the additional ROUTE CHANNEL commands that have been added to the updated models. There were no other changes made to the models upstream of Highway 416.

Table 2: Comparison of Summer Peak Flows (m³/s) at Borrisokane Road (53577.82 ha)

Scenario	Return Period					
	2-Year	5- Year	10-Year	25-Year	50-Year	100-Year
Model 1: 2005 Floodplain Study	n/a	n/a	n/a	n/a	n/a	n/a
Model 2: Stantec 2007 Reach One Analysis	46.817	68.124	n/a	107.402	n/a	144.892
Model 3: Updated Model 2 to current/ approved conditions	47.379	69.117	85.613	108.988	127.740	147.849
Model 4A: Model 3 with BCDC & others w/o SWM	47.426	68.998	85.561	109.064	127.650	147.535
Model 4B: Model 3 with BCDC & others with SWM	47.599	69.319	85.870	109.449	128.055	147.939

From Table 2 it is seen that the peak flows on the Jock River at Borrisokane are generally lower in model 4A (developed without SWM controls) than under existing conditions (Model 3). The inclusion of SWM controls for these future developments results in the peak flows increasing from existing conditions for all return periods at this location. Note that the increase in flows at this location between the Stantec model (model 2) and the JFSA existing conditions model (model 3) again is due to the greater discretization of subcatchments at Borrisokane Road in the JFSA model. For example, in the Stantec model, the subcatchment that represents the currently undeveloped lands along the Jock River is represented as a single subcatchment (S-1). Where the JFSA updated model represents these lands as 14 individual subcatchments, all discharging to their respective locations within the Jock River (e.g. O'Keefe Creek, Foster Creek & Borrisokane Road).

Table 3: Comparison of Summer Peak Flows (m³/s) at Greenbank Road (54717.80 ha)

Scenario	Return Period					
	2-Year	5- Year	10-Year	25-Year	50-Year	100-Year
Model 1: 2005 Floodplain Study	n/a	n/a	n/a	n/a	n/a	n/a
Model 2: Stantec 2007 Reach One Analysis	49.195	71.220	n/a	111.172	n/a	149.236
Model 3: Updated Model 2 to current/ approved conditions	49.055	70.826	86.895	110.282	128.564	147.488
Model 4A: Model 3 with BCDC & others w/o SWM	48.599	69.773	85.389	103.842	126.050	144.531
Model 4B: Model 3 with BCDC & others with SWM	48.982	70.171	85.928	103.651	126.537	144.894

From Table 3 it is seen that peak flows on the Jock River at Greenbank Road are the lowest without SWM controls in place (Model 4A). With SWM controls in place, the peak flows are lower than the existing conditions, but not as low as when SWM controls are not implemented. Note that the JFSA existing conditions model (model 3) is presenting peak flows lower than the Stantec model (model 2) at this location, again this is due to the greater discretization in the JFSA model as discussed above.

Table 4: Comparison of Summer Peak Flows (m^3/s) at Jockvale Road (55476.26 ha)

Scenario	Return Period					
	2-Year	5- Year	10-Year	25-Year	50-Year	100-Year
Model 1: 2005 Floodplain Study	n/a	n/a	n/a	n/a	n/a	n/a
Model 2: Stantec 2007 Reach One Analysis	49.870	72.143	n/a	112.074	n/a	150.033
Model 3: Updated Model 2 to current/ approved conditions	49.619	72.224	88.294	111.989	130.865	149.819
Model 4A: Model 3 with BCDC & others w/o SWM	49.482	71.017	86.165	105.082	128.174	146.840
Model 4B: Model 3 with BCDC & others with SWM	49.606	71.408	86.690	104.765	128.229	147.027

From Table 4 is seen that the peak flows at Jockvale Road are generally at their lowest without SWM controls in place, and that either implementing or not implementing SWM controls for future developments results in peak flows at this location being less than existing conditions.

Table 5: Comparison of Summer Peak Flows (m^3/s) at Outlet of Jock River (55579.20 ha)

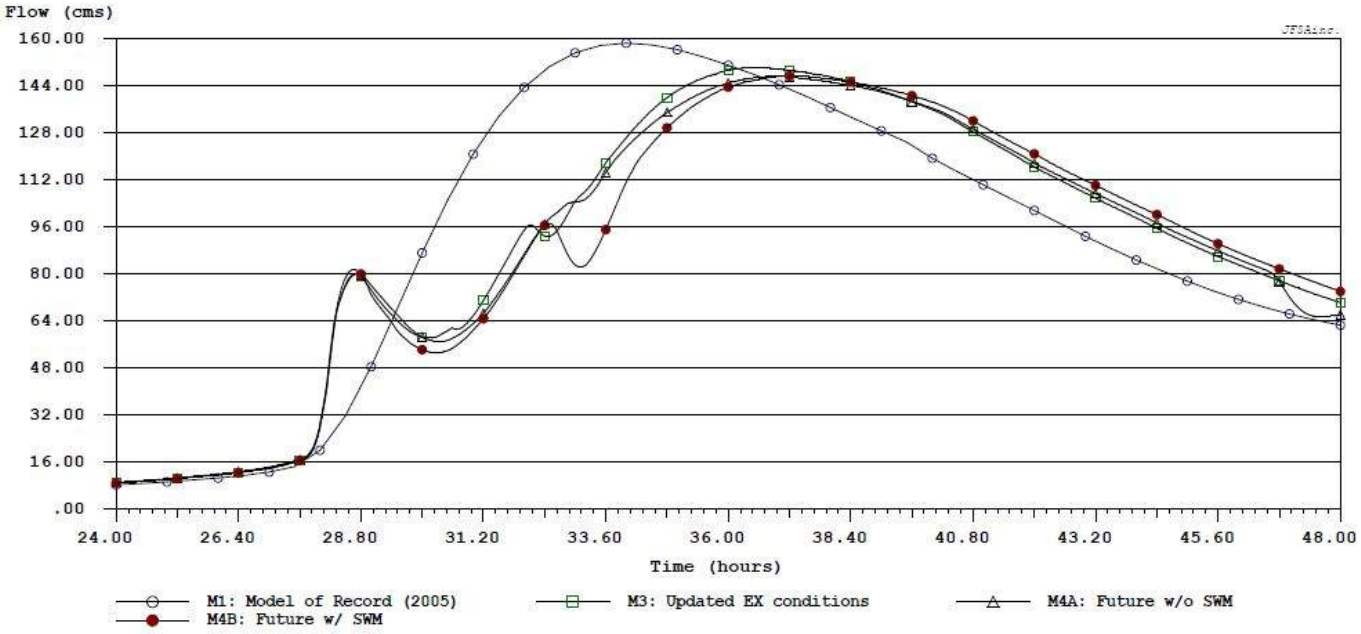
Scenario	Return Period					
	2-Year	5- Year	10-Year	25-Year	50-Year	100-Year
Model 1: 2005 Floodplain Study	49.16	72.08	89.96	115.84	136.46	158.42
Model 2: Stantec 2007 Reach One Analysis	50.78	73.65	n/a	113.97	n/a	157.69
Model 3: Updated Model 2 to current/ approved conditions	49.72	72.36	88.45	112.2	131.12	150.12
Model 4A: Model 3 with BCDC & others w/o SWM	49.58	71.17	86.35	105.27	128.42	147.10
Model 4B: Model 3 with BCDC & others with SWM	49.70	71.54	86.85	104.96	128.45	147.28

From Table 5 it is seen that the peak flows on the Jock River at the confluence with the Rideau River are generally at their lowest without SWM controls in place, and that either implementing or not implementing SWM controls for future developments results in peak flows at this location to be less than existing conditions.

Discussion

Although not initially obvious, the reason that future urban developments within Reach One of the Jock River are decreasing peak flows on the Jock River is because developing land not only affects the peak of the hydrograph but also the overall shape. Figure A below provides a comparison of the simulated hydrographs at the Jock River's confluence with the Rideau River from the various model scenarios. During any rainfall event, the runoff from the existing and future developments within Reach One will have already peaked and decayed before the peak flows arrive at this location from the upstream drainage area. For the 100-Year SCS storm, the peak from the development in Reach One can be seen in the figure below at around 28 hours, while the peak flow on the Jock River from the upstream drainage areas occurs at around 36-37 hours, this is approximately a 9-hour difference in timing. As such, implementing SWM measures for developments in the lower portions of the Jock River will decrease peak flows from the development, but would also prolong the period of time during which they discharge into the Jock River, thus coinciding with flows from the greater Jock River, ultimately resulting in potential increases in peak flows on the Jock River. This is seen in the figure below with the future condition with SWM controls (Model 4B - Red Circles) having a higher flow in the tail than future conditions without SWM controls (Model 4A – Black Triangles). Note that the difference between Model 1 and all other scenarios is simply due to further discretization of subcatchments within Reach One.

Figure A: Comparison of simulated 100 yr Jock River hyrographs at the confluence with the Rideau River



Hydrograph Statistics:

Legend	Filename & Comment	Time Step (min)	Drainage Area (ha)	Peak Flow (cms)	Time to Peak (hrs)	Runoff Volume (mm)	Runoff Volume (cu.m)	Duration of flow (hrs)	Average flow (cms)
—○—	N1.0100 : M1: Model of Record (2005)	30.00	55659.00	158.420	34.000	14.52	8.082E+06	24.000	93.538
—□—	SN_N1.0100 : M3: Updated EX conditions	1.00	55579.20	150.120	36.533	14.24	7.914E+06	24.000	91.603
—△—	SN_N1.0100 : M4A: Future w/o SWM	1.00	55579.20	147.102	36.917	14.12	7.848E+06	24.000	90.831
—●—	SN_N1.0100 : M4B: Future w/ SWM	1.00	55579.19	147.276	37.250	14.03	7.798E+06	24.000	90.252

Conclusion

The hydrologic model developed as a part of the Jock River Reach One Subwatershed Study (Stantec 2007) has been updated to provide additional refinements in the lower reaches of the Jock River (downstream of Highway 416) and assumes the development of lands that were previously not considered in the 2007 analysis (e.g. Barrhaven Conservancy). Future development condition models were created with and without SWM controls assumed, and the peak flows extracted from these models at key locations along the lower Jock River. From this analysis, it was found that with these additional developments in the lower Jock River peak flows are generally less than existing conditions without SWM controls in place. Implementing SWM controls for these developments has also been found to generally decrease peak flows on the Jock River, but not at all locations and not to the same degree as without SWM controls. Ultimately these findings are consistent with the fundamental conclusions drawn in Stantec's 2007 Jock River Reach One study, which initially determined that for future developments within Reach One of the Jock River "No quantity control storage is required for flood control purposes as the hydrograph from the subwatershed will peak before the upstream peak in the Jock River" and that "No erosion control storage is required to maintain the pre-development in-stream erosion condition". Based on the results of the updated analysis outlined in this memo, it can confirm that the fundamental conclusions drawn in Stantec's 2007 for developments in reach one of the Jock River remain valid.

Yours truly,
J.F Sabourin and Associates Inc.

Jonathon Burnett, P.Eng
Water Resources Engineer

cc: J.F Sabourin, M.Eng, P.Eng
Director of Water Resources Projects

Figures

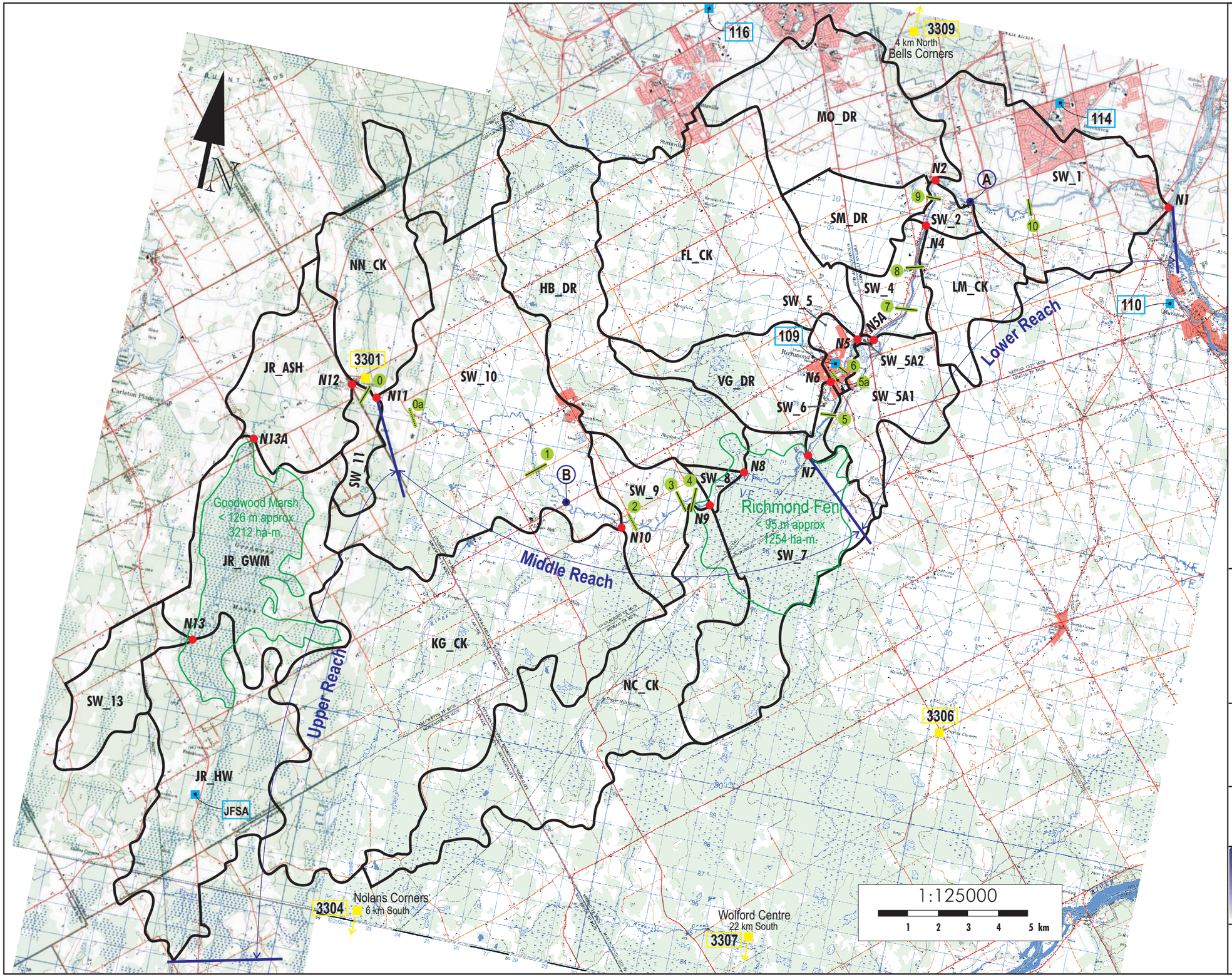
Figure 1: Model 1 – Jock River Floodplain Model – JFSA, 2005
Figure 2: Model 2 – Jock River Reach One Model – Stantec, 2007
Figure 3: Model 3 – Jock River Reach One Model Update - JFSA, 2021
Figure 4: Model 4A & 4B – Jock River Reach One Future Conditions - JFSA, 2021

Tables

Table 1: Summer Peak Flows at Highway 416
Table 2: Summer Peak Flows at Borrisokane Road.
Table 3: Summer Peak Flows at Greenbank Road
Table 4: Summer Peak Flows at Jockvale Road
Table 5: Summer Peak Flows at Outlet of Jock River

Attachments

Attachment A: Model 1 - SWMHYMO Input & Summary files
Attachment B: Model 2 - SWMHYMO Input & Summary files
Attachment C: Model 3 - SWMHYMO Input & Summary files
Attachment D: Model 4A - SWMHYMO Input & Summary files
Attachment E: Model 4B - SWMHYMO Input & Summary files
Attachment F: Updated Subcatchment Schematics & Tables



Legend:

- Watershed
- Bogs (Reservoir)
- Nodes
- Flow gauges
- Rain gauges
- Snow course stations
- River Cross-Sections (based on topo. maps)
- River Cross-Sections adjusted with field data
- Reaches limits

Flow gauges ID

- (A) 02LA007- Jock River near Richmond
- (B) Jock River at Franktown Rd

Rain gauges ID

- 109 Richmond
- 110 Manotick
- 114 Barrhaven
- 116 Maple Grove
- JFSA JFSA Inc, Temporary Rain Gauge 2003

Snow course stations ID

- 3301 Ashton
- 3304 Nolans Corners
- 3306 Pierces Corners
- 3307 Bells Corners
- 3309 Wolford Centre

Client:

RIDEAU VALLEY CONSERVATION AUTHORITY

Project:

Jock River Flood Plain Mapping Study

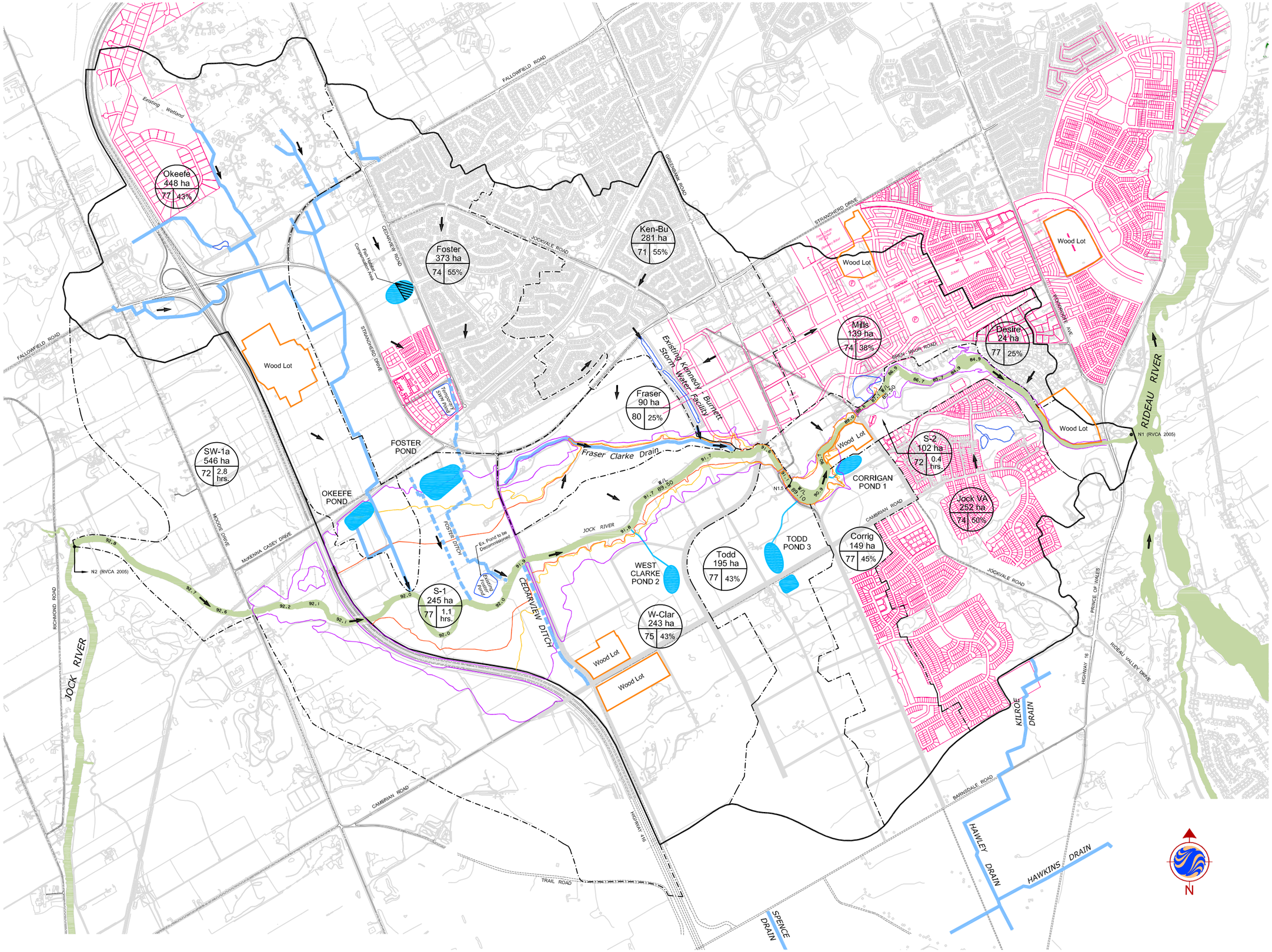
Title:

Watershed Delineation

J.F. Sabourin & Associates Inc.
WATER RESOURCES AND ENVIRONMENTAL CONSULTANTS
OTTAWA (613) 727-5199
GATINEAU (819) 243-6858

Figure 1

Ref. File: Base Map Jock River B.cdr



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Legend

- Existing SWM Facility
- Proposed Stormwater Facility
- Proposed Pond Outlet
- Jock River Tributary (Municipal Drain)
- Jock River Tributary (Non-Municipal Drain)
- Watershed Boundary
- 91.7 — Regulatory Flood Level
- W/L 89.50 — Normal Water Level
- Woodlot Limits
- Sub-drainage Area Limit
- Desire / 24 ha / 77 / 50% / hrs. — Sub-drainage Area Name; Sub-drainage Area Size; % Impervious or Time to Peak (hours); SCS Curve Number
- Application Plans Under Review
- 10 Year Flood Line
- 25 Year Flood Line
- 100 Year Flood Line

1	FINAL REPORT	BCB	N.G.	JUNE 2007
	Revision	By	Appd.	YY.MM.DD
File Name:		Dwn.	Chkd.	Dsgn.	YY.MM.DD

Seal

Client/Project

JOCK RIVER REACH ONE SUB-WATERSHED STUDY
Ottawa ON Canada

Title

PROPOSED CONDITIONS HYDROLOGIC MODEL DRAINAGE BOUNDARIES

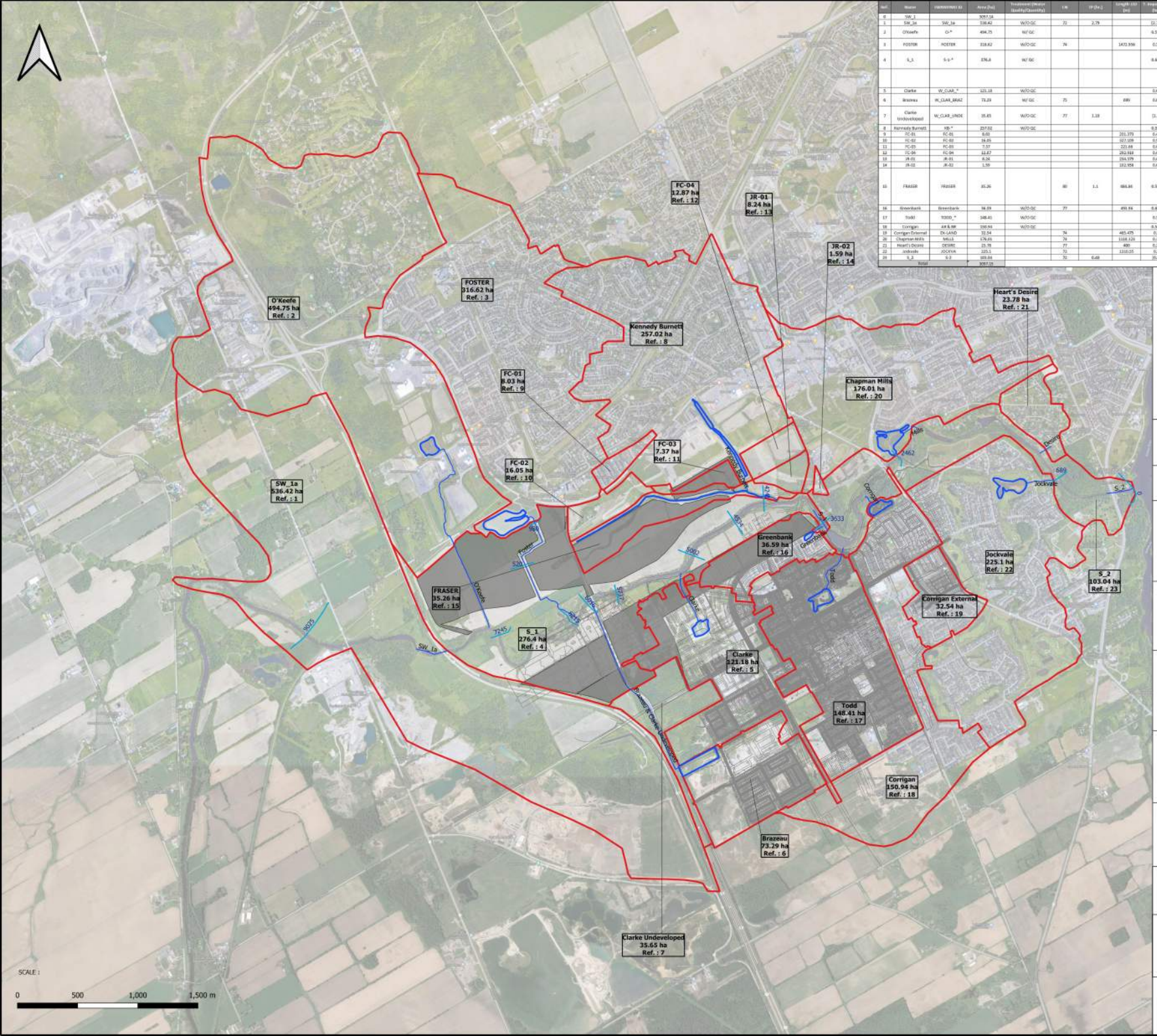
Project No. 60400414

Scale 1:10,000 (0, 100, 300, 500m)

Drawing No. Figure 2

Sheet 1 of 1

Revision 1



Ref	Name	OWNERSHIP ID	Area (ha)	Treatment (Water Quality/Quantity)	CN	TP (lb.)	Length (m)	T. Hyperc. (TP (hr))	RMF	Type	Major System To	Minor System To	Figure	Table	Schematic
0	SW_1		3057.14												
1	SW_1a	SW_1a	536.42	W/O QC	72	2.79		0.781		NASHYD	Jock River at Station 7245				
2	O'Keeffe	O-*	494.75	W/ QC				0.575		STANDHYD	Jock River at Station 8255		Figure F1 - O'Keeffe Sub-catchments	Table F1 - O'Keeffe Sub-catchments	Schematic F1 - O'Keeffe Sub-catchments
3	FOSTER	FOSTER	316.62	W/O QC	74		1472.936	0.55	0.55	STANDHYD	Jock River at Station 8058		Figure F2 - Foster Sub-catchment	Table F2 - Foster Sub-catchment	
4	S_1	S-1-*	276.4	W/ QC				0.646		STANDHYD	Jock River at Station 5802		Figure 4A - S-1 & Fraser Sub-catchments Figure 4B - S-1 & Fraser Sub-catchments	Table 4A - S-1 & Fraser Sub-catchments Table 4B - S-1 & Fraser Sub-catchments	
5	Clarke	W_CLAR_*	121.18	W/O QC				0.41		STANDHYD	Jock River at Station 3052				
6	Brazeau	W_CLAR_BRAZ	73.29	W/ QC	75		899	0.05	0.8	STANDHYD	Jock River at Station 8056		Figure F3 - Clarke & Brazeau Sub-catchments	Table F3-1 - Clarke Sub-catchments Figure F3-2 - Brazeau Sub-catchment	
7	Clarke Undeveloped	W_CLAR_UNDE	35.65	W/O QC	77	1.18		[1.1]		NASHYD	Jock River at Station 9082				
8	Kennedy Burnett	KB-*	257.02	W/O QC				0.357		STANDHYD	Jock River at Station 3033				
9	FC-01	FC-01	8.03				201.373	0.47	0.47	STANDHYD	Jock River at Station 3035				
10	FC-02	FC-02	16.05				327.109	0.93	0.93	STANDHYD	Jock River at Station 3032		Figure F4 - Kennedy Burnett Sub-catchments	Table F4 - Kennedy Burnett Sub-catchments	
11	FC-03	FC-03	7.37				221.84	0.64	0.64	STANDHYD	Jock River at Station 3031				
12	FC-04	FC-04	12.87				252.318	0.64	0.64	STANDHYD	Jock River at Station 3033				
13	JR-01	JR-01	8.24				254.379	0.64	0.64	STANDHYD	Jock River at Station 3033				
14	JR-02	JR-02	1.59				102.958	0.64	0.64	STANDHYD	Jock River at Station 3033				
15	FRASER	FRASER	35.26		80	1.1	886.84	0.565	0.565	STANDHYD	Jock River at Station 3033		Figure 4A - S-1 & Fraser Sub-catchments Figure 4B - S-1 & Fraser Sub-catchments	Table 4A - S-1 & Fraser Sub-catchments Table 4B - S-1 & Fraser Sub-catchments	
16	Greenbank	Greenbank	36.59	W/O QC	77		491.94	0.602	0.602	STANDHYD	Jock River at Station 3062				
17	Todd	TODD_*	148.41	W/O QC				0.55		STANDHYD	Jock River at Station 3062		Figure F5 - Todd Sub-catchments	Table F5 - Todd Sub-catchments	
18	Corrigan	Ant & RM	150.94	W/O QC				0.541		STANDHYD	Jock River at Station 3062		Figure F6 - Corrigan Sub-catchments	Table F6 - Corrigan Sub-catchments	
19	Corrigan External	EX-LAND	32.54		74		485.475	0.5	0.5	STANDHYD	Jock River at Station 3062				
20	Chapman Mills	MILLS	176.01		74		1118.129	0.68	0.68	STANDHYD	Jock River at Station 909				
21	Heart's Desire	DESIRE	23.78		77		400	0.25	0.25	STANDHYD	Jock River at Station 0				
22	Jockvale	JOCKVA	225.1		70		1310.55	0.5	0.5	STANDHYD	Jock River at Station 0				
24	S_2	S-2	103.04		70	0.68		[0.6]		NASHYD	Rideau River				
	Total		3057.14												

Legend
- Channel Cross Section
- Sub-catchments
  - SW_1
- SWMF Drains
- SWMF ponds

File name:

Figure 3 - Overall Jock River Lower Reach one Sub-catchments.pdf

XS 4534 — Cross Section at station 4534

SW_1a
536.42 ha
Ref. 1

- Area ID
- Area (ha)
- Reference Number

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DSEL
david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

TITLE :

Figure 3 - Overall Jock River Lower Reach one Sub-catchments

Table 3 - Overall Jock River Lower Reach one Sub-catchments

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Legend

Channel Cross Sections

S-1 Sub-catchments and Fraser Sub-catchments

- S-1-A
- S-1-B
- S-1-D1
- S-1-D2
- S-1-D3
- S-1-D4
- S-1-D5
- S-1-D6
- S-1-D7
- S-1-D8
- S-1-FO-D1
- S-1-FO-D2
- S-1-FO-F-D
- S-1-Okeefe
- FRASER-DRN
- FRASER-D

Google Hybrid

File name:

20210304_S-1_Fraser_Schematic-Model4A.pdf

XS 3633 Cross Section at station 3633

S-1-A
90.84 ha
Ref. 1
→ Area ID
→ Area (ha)
→ Reference Number

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PROJECT :

BCDC - Quantity Control Study

TITLE :

S-1 Sub-catchment and Fraser Clarke Sub-catchment Schematic

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Legend

Channel Cross Sections

S-1 Sub-catchments and Fraser Sub-catchments

- S-1-A
- S-1-B
- S-1-D1
- S-1-D2
- S-1-D3
- S-1-D4
- S-1-D5
- S-1-D6
- S-1-D7
- S-1-D8
- S-1-FO-D1
- S-1-FO-D2
- S-1-FO-F-D
- S-1-Okeefe
- FRASER-DRN
- FRASER-D

Google Hybrid

File name:

20210304_S-1_Fraser_Schematic-Model4B.pdf

XS 3633 Cross Section at station 3633

S-1-A
90.84 ha
Ref. 1

- Area ID
- Area (ha)
- Reference Number

J.F. Sabourin and Associates Inc.
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david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

TITLE :

S-1 Sub-catchment and Fraser Clarke Sub-catchment Schematic

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

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Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

Attachment A

Model 1 – Jock River Floodplain Model

JFSA, 2005

SWMHYMO Input & Summary files

```
20    Metric units / ID numbers OFF
*#*************************************************************************
*#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
*#*************************************************************************
*#  Project Name: [Jock River]    Project Number: [411-02]
*#  Date        : 06-06-2003
*#  Modeller    : [JoF]
*#  Company     : JFSAinc.
*#  License #   :  2549237
*#*************************************************************************
*# CALIBRATION OF SUMMER MODEL PARAMETERS
*# USING CONTINUOUS SIMULATIONS
*# Rainfall data from JFSA raingauge installed at site + other gauges by the City
*# Use data collected from May 1st to July 14, 2003
*
* Calibrated parameters for Summer 2003 data:  APII=50, APIK=0.85, CN=varies,
*                                              SK=0.01, InterEventTime=12,
*                                              GWResk=0.96, VHydCond=0.055
*
*# ------------------------------------------------------------------------
*
*START               TZERO=[2003.0501],  METOUT=[2],  NSTORM=[1],  NRUN=[001]
*                    ["XAVG0315.STM"] average storm data a 15 minute time step
*                    The above rainf file is an average of the JFSA gauge data
*                    with the City of Ottawa rainfall data collected during
*                    the same period.
*%  2 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[2]
*%                   ["C24SC002.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
READ STORM          STORM_FILENAME=["storm.001"]
*%-----------------|-------------------------------------------------------|
MODIFY STORM        ICASEms=[1],  NSHIFT=[96],
                    RedFACT=[1],
*%-----------------|-------------------------------------------------------|
COMPUTE API         APII=[50], APIK=[.85]/day
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_HW"], DT=[30]min, AREA=[3680](ha),
                    DWF=[0](cms),  CN/C=[64], IA=[2.5](mm),
                    N=[3.0], TP=[7.13]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_13"], DT=[30]min, AREA=[971](ha),
                    DWF=[0](cms),  CN/C=[61], IA=[2.5](mm),
                    N=[3.0], TP=[3.76]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
```

```
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_GWM"], DT=[30]min, AREA=[3074](ha),
                    DWF=[0](cms),  CN/C=[55], IA=[2.5](mm),
                    N=[3], TP=[11.33]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_ASH"], DT=[30]min, AREA=[1781](ha),
                    DWF=[0](cms),  CN/C=[72], IA=[2.5](mm),
                    N=[3.0], TP=[3.91]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_11"], DT=[30]min, AREA=[500](ha),
                    DWF=[0](cms),  CN/C=[66], IA=[2.5](mm),
                    N=[3.0], TP=[1.24]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NN_CK"], DT=[30]min, AREA=[1917](ha),
                    DWF=[0](cms),  CN/C=[66], IA=[2.5](mm),
                    N=[3.0], TP=[5.29]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.52
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_10"], DT=[30]min, AREA=[5666](ha),
```

```
                    DWF=[0](cms),  CN/C=[72], IA=[2.5](mm),
                    N=[3.0], TP=[8.00]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["KG_CK"], DT=[30]min, AREA=[8376](ha),
                    DWF=[0](cms),  CN/C=[66], IA=[2.5](mm),
                    N=[3.0], TP=[11.66]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.68
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_9"], DT=[30]min, AREA=[1132](ha),
                    DWF=[0](cms),  CN/C=[70], IA=[2.5](mm),
                    N=[3.0], TP=[2.51]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NC_CK"], DT=[30]min, AREA=[4464](ha),
                    DWF=[0](cms),  CN/C=[62], IA=[2.5](mm),
                    N=[3.0], TP=[11.32]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_8"], DT=[30]min, AREA=[131](ha),
                    DWF=[0](cms),  CN/C=[63], IA=[2.5](mm),
                    N=[3.0], TP=[0.90]hrs,
```

```
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.65
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["HB_DR"], DT=[30]min, AREA=[3854](ha),
                    DWF=[0](cms),  CN/C=[66], IA=[2.5](mm),
                    N=[3.0], TP=[8.42]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_7"], DT=[30]min, AREA=[3197](ha),
                    DWF=[0](cms),  CN/C=[57], IA=[2.5](mm),
                    N=[3.0], TP=[6.65]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_6"], DT=[30]min, AREA=[165](ha),
                    DWF=[0](cms),  CN/C=[67], IA=[2.5](mm),
                    N=[3.0], TP=[4.18]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.67
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["VG_DR"], DT=[30]min, AREA=[1332](ha),
                    DWF=[0](cms),  CN/C=[72], IA=[2.5](mm),
                    N=[3.0], TP=[5.95]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
```

```
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5"], DT=[30]min, AREA=[224](ha),
                    DWF=[0](cms),  CN/C=[77], IA=[2.5](mm),
                    N=[3.0], TP=[0.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.20
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["FL_CK"], DT=[30]min, AREA=[4945](ha),
                    DWF=[0](cms),  CN/C=[74], IA=[2.5](mm),
                    N=[3.0], TP=[4.45]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5A2"], DT=[30]min, AREA=[20](ha),
                    DWF=[0](cms),  CN/C=[81], IA=[2.5](mm),
                    N=[3.0], TP=[0.62]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.61
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5A1"], DT=[30]min, AREA=[1412](ha),
                    DWF=[0](cms),  CN/C=[75], IA=[2.5](mm),
                    N=[3.0], TP=[8.00]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_4"], DT=[30]min, AREA=[585](ha),
                    DWF=[0](cms),  CN/C=[81], IA=[2.5](mm),
                    N=[3.0], TP=[1.75]hrs,
```

```
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["LM_CK"], DT=[30]min, AREA=[1021](ha),
                    DWF=[0](cms),  CN/C=[80], IA=[2.5](mm),
                    N=[3.0], TP=[2.46]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_2"], DT=[30]min, AREA=[177](ha),
                    DWF=[0](cms),  CN/C=[77], IA=[2.5](mm),
                    N=[3.0], TP=[0.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SM_DR"], DT=[30]min, AREA=[1122](ha),
                    DWF=[0](cms),  CN/C=[81], IA=[2.5](mm),
                    N=[3.0], TP=[3.25]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["MO_DR"], DT=[30]min, AREA=[2737](ha),
                    DWF=[0](cms),  CN/C=[76], IA=[2.5](mm),
                    N=[3.0], TP=[3.03]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_1"], DT=[30]min, AREA=[3176](ha),
                    DWF=[0](cms),  CN/C=[78], IA=[2.5](mm),
                    N=[3.0], TP=[3.56]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
```

```
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*#
*# Routing hydrographs
*#
*# Starting with the addition of Jock River Headwater and Subwatershed 13
*#
ADD HYD             NHYDsum=["S_N13"], NHYDs to add=["JR_HW"+"SW_13"]
*%-----------------|-------------------------------------------------------|
*#
*# Sum of hydrographs from Node 13 routed to Node 13A
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
*#
ROUTE CHANNEL       NHYDout=["N13A"] ,NHYDin=["S_N13"],
                    RDT=[30](min),
                    CHLGTH=[9074](m),  CHSLOPE=[0.0220](%),
                                        FPSLOPE=[0.0220](%),
                    SECNUM=[1.0],       NSEG=[1]
                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.0]
                          [15.5, 129.5]
*%-----------------|-------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
*#
ADD HYD             NHYDsum=["SN13A"], NHYDs to add=["N13A"+"JR_GWM"]
*%-----------------|-------------------------------------------------------|
*#
*# Insertion of a reservoir to simulate the effects of the Goodwood Marsh
*#
ROUTE RESERVOIR     NHYDout=["RES_GM"] ,NHYDin=["SN13A"],
                    RDT=[30](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,  0.0 ]
                                  [1.991, 2.144    ]
                                  [2.693, 39.826   ]
                                  [3.509, 81.697   ]
                                  [4.578, 318.774  ]
                                  [5.647, 594.947  ]
                                  [7.109, 910.219  ]
                                  [8.616, 1264.589  ]
                                  [10.371, 1658.057  ]
                                  [12.402, 2090.622 ]
                                  [22.056, 3462.487 ]
                                  [   -1  ,  -1  ]  (max twenty pts)
                          NHYDovf["      "] ,
*%-----------------|-------------------------------------------------------|
*#
```

```
SAVE HYD            NHYD=["RES_GM"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_RESGM"]
                    HYD_COMMENT=["Outflow from Res GM"]
*%-----------------|-------------------------------------------------------------|
*# Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
ROUTE CHANNEL       NHYDout=["N12"] ,NHYDin=["RES_GM"] ,
                    RDT=[30](min),
                    CHLGTH=[5926](m),  CHSLOPE=[0.0759](%),
                                        FPSLOPE=[0.0759](%),
                    SECNUM=[1.0],       NSEG=[1]
                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.00]
                          [15.5, 129.5]
*%-----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Ashton to Node 12
*#
ADD HYD             NHYDsum=["S_N12"], NHYDs to add=["N12"+"JR_ASH"]
SAVE HYD            NHYD=["S_N12"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN12"]
                    HYD_COMMENT=["flow at S_N12 near Ashton"]
*%-----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
ROUTE CHANNEL       NHYDout=["N11"] ,NHYDin=["S_N12"] ,
                    RDT=[30](min),
                    CHLGTH=[972](m),  CHSLOPE=[0.0514](%),
                                        FPSLOPE=[0.0514](%),
                    SECNUM=[1.0],       NSEG=[1]
                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.00]
                          [15.5, 129.5]
```

```
*%-----------------|---------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
*#
ROUTE CHANNEL       NHYDout=["Dum11"] ,NHYDin=["S_N12"] ,
                    RDT=[30](min),
                    CHLGTH=[972](m),  CHSLOPE=[0.054](%),
                                        FPSLOPE=[0.054](%),
                    SECNUM=[1.0],       NSEG=[1]
                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.00]
                          [15.5, 129.5]
*%-----------------|---------------------------------------------------------|
*#
*# Addition of Subwatershed 11 and No Name Creek to Node 11
*#
ADD HYD             NHYDsum=["S_N11"], NHYDs to add=["Dum11"+"SW_11"+"NN_CK"]
*%-----------------|---------------------------------------------------------|
*#
*# Sum of hydrographs from Node 11 routed to Node 10
*# Section 1
*#
ROUTE CHANNEL       NHYDout=["N10"] ,NHYDin=["S_N11"] ,
                    RDT=[30](min),
                    CHLGTH=[14028](m),  CHSLOPE=[0.1568](%),
                                        FPSLOPE=[0.1568](%),
                    SECNUM=[1.0],       NSEG=[5]
                    ( SEGROUGH, SEGDIST (m))=
                     [0.04,-52.82
                      0.1,-6.47
                      -0.05,6.47
                      0.1,45.36
                      0.04,423.88] NSEG times
                   ( DISTANCE (m), ELEVATION (m))=
                          [-226.24 ,112.50]
                          [-167.50 ,111.50]
                          [-106.81 ,111.00]
                          [-92.37 ,110.00]
                          [-52.82 ,109.00]
                          [-24.90, 109.00]
                          [-17.02, 108.50]
                          [-6.47, 108.00]
                          [6.47, 108.00]
                          [15.67, 108.50]
                          [18.95, 109.00]
                          [45.36, 109.50]
                          [120.79, 110.00]
                          [145.72, 111.00]
                          [181.56, 111.50]
                          [423.88, 112.50]
*%-----------------|---------------------------------------------------------|
```

```
*#
*# Addition of Subwatershed 10 to Node 10
*#
ADD HYD             NHYDsum=["S_N10"], NHYDs to add=["N10"+"SW_10"]
*%-----------------|-------------------------------------------------------|
SAVE HYD            NHYD=["S_N10"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN10"]
                    HYD_COMMENT=["flow at S_N10: N10 + SW_10"]
*%-----------------|-------------------------------------------------------|
*# Addition of Kings Creek to S_N10
*#
ADD HYD             NHYDsum=["S_N10A"], NHYDs to add=["S_N10"+"KG_CK"]
*%-----------------|-------------------------------------------------------|
*#
*# Sum of hydrographs from Node 10 routed to Node 9
*# Section 2
*#
ROUTE CHANNEL       NHYDout=["N9"] ,NHYDin=["S_N10A"] ,
                    RDT=[30](min),
                    CHLGTH=[3982](m),  CHSLOPE=[0.0753](%),
                                        FPSLOPE=[0.0753](%),
                    SECNUM=[1.0],       NSEG=[4]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.04,-30.27
                       0.05,-18.42
                      -0.05,18.42
                      0.04,131.58] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-446.74, 106.00]
                          [-415.68, 105.50]
                          [-285.40, 105.00]
                          [-173.77, 104.50]
                          [-144.95, 104.00]
                          [-111.18, 103.50]
                          [-94.06, 103.00]
                          [-71.02, 102.50]
                          [-30.27, 102.00]
                          [-19.33, 100.00]
                          [-18.42, 99.50]
                          [18.42, 99.50]
                          [20.77, 100.00]
                          [27.93, 101.00]
                          [52.29, 101.00]
                          [68.80, 101.50]
                          [79.66, 103.00]
                          [91.50, 103.50]
                          [131.58, 104.00]
*%-----------------|-------------------------------------------------------|
*#
*# Addition of Subwatershed 9 and Nichols Creek to Node 9
*#
ADD HYD             NHYDsum=["S_N9"], NHYDs to add=["N9"+"SW_9"+"NC_CK"]
*%-----------------|-------------------------------------------------------|
*#
*# Sum of hydrographs from Node 9 routed to Node 8
*# Section 3
*#
ROUTE CHANNEL       NHYDout=["N8"] ,NHYDin=["S_N9"] ,
                    RDT=[30](min),
                    CHLGTH=[2269](m),  CHSLOPE=[0.0882](%),
                                        FPSLOPE=[0.0882](%),
                    SECNUM=[1.0],       NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.1,-17.99
                      -0.045,17.31
                      0.1,456.58] NSEG times
```

```
                    ( DISTANCE (m), ELEVATION (m))=
                          [-201.19,100.50]
                          [-135.21, 100.00]
                          [-94.83, 99.50]
                          [-67.05, 99.00]
                          [-17.99, 98.50]
                          [-16.02, 98.00]
                          [-13.95, 97.50]
                          [13.95, 97.50]
                          [15.64, 98.00]
                          [17.31, 98.50]
                          [162.02, 98.50]
                          [172.89 ,99.00]
                          [314.38, 99.00]
                          [343.78, 99.50]
                          [365.67, 100.00]
                          [376.68, 100.00 ]
                          [393.11, 99.50]
                          [404.97, 99.50]
                          [431.70, 100.00]
                          [456.58, 100.50 ]
*%-----------------|-------------------------------------------------------|
*#
*# Addition of Subwatershed 8 and Hobb's Drain to Node 8
*#
ADD HYD             NHYDsum=["S_N8"], NHYDs to add=["N8"+"SW_8"+"HB_DR"]
*%-----------------|-------------------------------------------------------|
*#
*# Sum of hydrographs from Node 8 routed to Node 7
*# Section 4
*#
ROUTE CHANNEL       NHYDout=["N7"] ,NHYDin=["S_N8"],
                    RDT=[30](min),
                    CHLGTH=[3750](m),  CHSLOPE=[0.0533](%),
                                        FPSLOPE=[0.0533](%),
                    SECNUM=[1.0],       NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.12,-18.11
                      -0.07,17.22
                      0.12,590.05] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-433.21, 102.00]
                          [-425.34, 101.50]
                          [-377.56, 101.50]
                          [-366.23, 101.00]
                          [-202.60, 100.50]
                          [-96.25, 99.50]
                          [-68.36 99.00]
                          [-18.11, 98.50]
                          [-13.81, 97.50]
                          [13.81, 97.50]
                          [17.22, 98.50]
                          [161.95, 98.50]
                          [173.11, 99.00]
                          [314.05, 99.00]
                          [365.52, 100.00]
                          [404.70, 99.50]
                          [476.74, 100.50]
                          [502.31, 101.00]
                          [584.69, 101.00]
                          [585.79, 101.00]
                          [590.05, 102.00]
*%-----------------|-------------------------------------------------------|
*#
*# Addition of Subwatershed 7 to Node 7
*#
```

```
ADD HYD             NHYDsum=["S_N7"], NHYDs to add=["N7"+"SW_7"]
*%-----------------|-------------------------------------------------------|
SAVE HYD            NHYD=["S_N7"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN7"]
                    HYD_COMMENT=["flow at S_N7: N7 + SW_7"]
*%-----------------|-------------------------------------------------------|
*# Insertion of a reservoir to simulate the effects of the Richmond Fen.
*# Storage area and volumes were estimated from available topo maps.
*# Release rate from fen was assumed to be controlled by the downstream
*# river cross-section for summer conditions.  It is was assumed that for up to
*# 0.75 m of water, the main channel of the river provided the storage.  Above
*# this depth, the wetland starts to signigicantly store water.
*#
ROUTE RESERVOIR     NHYDout=["RES_RF"] ,NHYDin=["S_N7"] ,
                    RDT=[30](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                          TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                   [   0.0 ,     0.0 ]
                                   [0.9051,    2.40]
                                   [2.907,     4.13]
                                   [9.744,     9.18]
                                   [20.304,   14.96]
                                   [34.167,  310.21]
                                   [74.993,  605.46]
                                   [104.876, 900.71]
                                   [140.56, 2892.00]
                                   [225.00, 3615.63]
                                   [   -1  ,  -1  ]  (max twenty pts)
                          NHYDovf=["      "] ,
*%-----------------|-------------------------------------------------------|
SAVE HYD            NHYD=["RES_RF"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_ResRF"]
                    HYD_COMMENT=["outflow of Richmond Fen"]
*%-----------------|-------------------------------------------------------|
*#
*# Sum of hydrographs from Node 7 routed to Node 6
*# Section 5
*#
ROUTE CHANNEL       NHYDout=["N6"] ,NHYDin=["RES_RF"] ,
                    RDT=[30](min),
                    CHLGTH=[3056](m),  CHSLOPE=[0.0818](%),
                                        FPSLOPE=[0.0818](%),
                    SECNUM=[1.0],       NSEG=[5]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.025,-70.8
                      0.1,-23.9
                      -0.05,23.9
                      0.06,39.8
                      0.05,96.3] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                     [-100.8, 97.00]
                                     [-70.8, 96.50]
                                     [-52.0, 96.00]
                                     [-35.1, 95.50]
                                     [-30.6, 95.00]
                                     [-23.9, 94.54]
                                     [23.9, 94.54]
                                     [39.8, 95.00]
                                     [50.4, 95.50]
                                     [93.5, 96.00]
                                     [94.9, 96.50]
                                     [96.3, 97.00]
*%-----------------|-------------------------------------------------------|
*#
```

```
*# Addition of Subwatershed 6 and Van Gaal Drain to Node 6
*#
ADD HYD             NHYDsum=["S_N6"], NHYDs to add=["N6"+"SW_6"+"VG_DR"]
*%-----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 6 routed to Node 5
*# Section 6
*#
ROUTE CHANNEL       NHYDout=["N5"] ,NHYDin=["S_N6"] ,
                    RDT=[30](min),
                    CHLGTH=[1852](m),  CHSLOPE=[0.0540](%),
                                        FPSLOPE=[0.0540](%),
                    SECNUM=[1.0],       NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.035,-131.59
                      -0.045,48.96
                      0.1,239.04] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                       [-686.30, 94.50]
                                       [-675.70, 94.00]
                                       [-492.52, 93.00]
                                       [-467.28, 94.00]
                                       [-131.59, 94.00]
                                       [-92.79, 92.50]
                                       [-18.06, 91.00]
                                       [18.06, 91.00]
                                       [43.47, 92.50]
                                       [48.96, 94.00]
                                       [177.43, 94.00]
                                       [239.04,94.50]
*%-----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed 5 and Flowing Creek to Node 5
*#
ADD HYD             NHYDsum=["S_N5"], NHYDs to add=["N5"+"SW_5"+"FL_CK"]
*%-----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5 routed to Node 5A
*# Section 7
*#
ROUTE CHANNEL       NHYDout=["N5A"] ,NHYDin=["S_N5"] ,
                    RDT=[30](min),
                    CHLGTH=[556](m),  CHSLOPE=[0.0900](%),
                                        FPSLOPE=[0.0900](%),
                    SECNUM=[1.0],       NSEG=[4]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.04,-41.5
                      0.1,-14.0
                      -0.045,14.0
                      0.1,41.1] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                       [-275.8, 93.00]
                                       [-248.6, 92.50]
                                       [-237.0, 92.00]
                                       [-219.3, 91.50]
                                       [-202.1, 91.50]
                                       [-186.0, 92.00]
                                       [-129.2, 92.00]
                                       [-117.6, 91.50]
                                       [-100.6, 91.00]
                                       [-41.5, 91.00]
                                       [-20.0, 91.00]
                                       [-14.0, 90.54]
                                       [14.0, 90.54]
                                       [15.3, 91.00]
                                       [17.3, 91.50]
```

```
                                    [38.4, 92.00]
                                    [39.8, 92.50]
                                    [41.1, 93.00]
*%-----------------|-------------------------------------------------------|
*#
*# Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
*#
ADD HYD             NHYDsum=["S_N5A"], NHYDs to add=["N5A"+"SW_5A2"+"SW_5A1"]
*%-----------------|-------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5A routed to Node 4
*# Section 8
*#
ROUTE CHANNEL       NHYDout=["N4"] ,NHYDin=["S_N5A"] ,
                    RDT=[30](min),
                    CHLGTH=[4630](m),  CHSLOPE=[0.0432](%),
                                        FPSLOPE=[0.0432](%),
                    SECNUM=[1.0],       NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.05,-28.2
                      -0.035,28.2
                      0.05,173.1] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                    [-38.9, 92.00]
                                    [-35.8, 91.50]
                                    [-33.3, 91.00]
                                    [-28.2, 90.50]
                                    [-15.0, 87.48]
                                    [-5.0, 88.34]
                                    [5.0, 86.20]
                                    [15.0, 88.55]
                                    [28.2, 90.50]
                                    [29.7, 91.00]
                                    [46.5, 91.00]
                                    [127.8, 91.00]
                                    [148.7, 91.50]
                                    [173.1, 92.00]
*%-----------------|-------------------------------------------------------|
*#
*# Addition of Subwatershed 4 and Leamy Creek to Node 4
*#
ADD HYD             NHYDsum=["S_N4"], NHYDs to add=["N4"+"SW_4"+"LM_CK"]
SAVE HYD            NHYD=["S_N4"],  # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["flow at S_N4"]
*%-----------------|-------------------------------------------------------|
*#
*# Sum of hydrographs from Node 4 routed to Node 2
*# Section 9
*#
ROUTE CHANNEL       NHYDout=["N2"] ,NHYDin=["S_N4"] ,
                    RDT=[30](min),
                    CHLGTH=[1667](m),  CHSLOPE=[0.0600](%),
                                        FPSLOPE=[0.0600](%),
                    SECNUM=[1.0],       NSEG=[4]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.1,-28.0
                      -0.04,28.4
                      0.06,31.7
                      0.04,80.2] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                           [-36.3, 92.00]
                           [-32.6, 91.50]
                           [-30.2, 91.00]
                           [-28.0, 90.45]
                           [-15.0, 87.48]
                           [-5.0, 88.34]
```

```
                              [5.0, 86.20]
                              [15.0, 88.55]
                              [28.0, 90.45]
                              [28.4, 90.50]
                              [30.4, 91.00]
                              [31.7, 91.50]
                              [80.2, 92.00]
*%-----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
*#
ADD HYD             NHYDsum=["S_N2"], NHYDs to add=["N2"+"SW_2"+"SM_DR"+"MO_DR"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["S_N2"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN2"]
                    HYD_COMMENT=["flow at S_N2 Jock River Gauge at Moodie Dr."]
*%-----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 2 routed to Node 1
*# Section 10
*#
ROUTE CHANNEL       NHYDout=["N1"] ,NHYDin=["S_N2"] ,
                    RDT=[30](min),
                    CHLGTH=[10046](m),  CHSLOPE=[0.0498](%),
                                        FPSLOPE=[0.0498](%),
                    SECNUM=[1.0],       NSEG=[5]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.04,-27.6
                      0.06,-15.0
                      -0.045,15.0
                      0.06,25.4
                      0.04,122.6] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                      [-87.0, 91.50]
                                      [-32.4, 91.00]
                                      [-27.6, 90.50]
                                      [-25.0, 90.00]
                                      [-22.9, 89.57]
                                      [-15.0, 86.20]
                                      [-5.0, 84.83]
                                      [5.0, 84.83]
                                      [15.0, 88.11]
                                      [22.9, 89.57]
                                      [25.4, 90.00]
                                      [27.9, 90.50]
                                      [38.0, 91.00]
                                      [112.5, 91.00]
                                      [114.3, 90.50]
                                      [115.1, 90.26]
                                      [116.3, 90.50]
                                      [119.0, 91.00]
                                      [121.0, 91.50]
                                      [122.6, 92.00]
*%-----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed 1 to Node 1
*#
ADD HYD             NHYDsum=["N1"], NHYDs to add=["N1"+"SW_1"]
SAVE HYD            NHYD=["N1"],  # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["total outflow of Jock River"]
*%-----------------|-------------------------------------------------------------|
*#####################################################################
*%  5 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[5]
*%                   ["C24SC005.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------------|
```

```
*%  10 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[10]
*%                   ["C24SC010.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------------|
*%  25 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[25]
*%                   ["C24SC025.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------------|
*%  50 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[50]
*%                   ["C24SC050.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------------|
*%  100 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                   ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
FINISH
```

```
00001> ********************************************************************************
00002>
00003> SSSSS   W   W   M   M   H   H   Y   Y   M   M    OOO          222     000    11   5555   ========
00004> S       W   W   MM MM   H   H    Y Y    MM MM   O   O        2   2   0   0  111   5
00005> SSSSS   W W W   M M M   HHHHH     Y     M M M   O   O          2     0   0   11   5      Ver 5.500
00006>     S   W W W   M   M   H   H     Y     M   M   O   O      222     0   0   11   555    FEB 2015
00007> SSSSS    W W    M   M   H   H     Y     M   M    OOO       2       000    11     5    ========
00008>                                                            2       0   0   11     5    # 2549237
00009>          StormWater Management HYdrologic Model            222     000    11   555    =========
00010>
00011>  ********************************************************************************
00012>  ********************  SWMHYMO Ver 5.500  ***************************************
00013>  ******************  A single event and continuous hydrologic simulation model  ***
00014>  ******************       based on the principles of HYMO and its successors    ***
00015>  ******************                 OTTHYMO-83 and OTTHYMO-89.                   ***
00016>  ********************************************************************************
00017>  ******************** Distributed by:  J. F. Sabourin and Associates Inc.        ***
00018>  ******************                   Ottawa,  Ontario: (613) 836-3884           ***
00019>  ******************                   Gatineau, Quebec: (819) 243-6858           ***
00020>  ******************                   E-Mail:  swmhymo@jfsa.Com                  ***
00021>  ********************************************************************************
00022>
00023>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024>  ++++++++++++++++++  Licensed user:  JFSAinc.                  ++++++++++++++++++++
00025>  ++++++++++++++++++                  Ottawa                   SERIAL#: 2549237    ++++++++++++++++++++
00026>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028>  ********************************************************************************
00029>  ******************                 ++++++ PROGRAM ARRAY DIMENSIONS ++++++      ***********************
00030>  ******************                 Maximum value for ID numbers  :    11      ***********************
00031>  ******************                 Max. number of rainfall points: 105408     ***********************
00032>  ******************                 Max. number of flow points    : 105408     ***********************
00033>  ********************************************************************************
00034>
00035>
00036>  *********************************  S U M M A R Y   O U T P U T  ********************************
00037>  ********************************************************************************
00038>  *                    RUN DATE: 2021-02-22        TIME: 15:43:08       RUN COUNTER: 001996      *
00039>  ********************************************************************************
00040>  * Input  file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\summer.*
00041>  *             DAT                                                                              *
00042>  * Output  file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\summer.*
00043>  *               out                                                                            *
00044>  * Summary file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\summer.*
00045>  *               sum                                                                            *
00046>  * User comments:                                                                               *
00047>  * 1:_____________________________________________________________________________________      *
00048>  * 2:_____________________________________________________________________________________      *
00049>  * 3:_____________________________________________________________________________________      *
00050>  ********************************************************************************
00051>
00052>
00053> #*******************************************************************************
00054> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00055> #*******************************************************************************
00056> #  Project Name: [Jock River]      Project Number: [411-02]
00057> #  Date        : 06-06-2003
00058> #  Modeller    : [JoF]
00059> #  Company     : JFSAinc.
00060> #  License #   :  2549237
00061> #*******************************************************************************
00062> # CALIBRATION OF SUMMER MODEL PARAMETERS
00063> # USING CONTINUOUS SIMULATIONS
00064> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00065> # Use data collected from May 1st to July 14, 2003
00066> # ------------------------------------------------------------
00067>  ** END OF RUN :   1
00068>
00069> ********************************************************************************************************
00070>
00071>
00072>
00073>
00074>
00075>  RUN#: COMMAND#
00076> R0002: C00001-------------------------------------------------------------------------------------------
00077>        START                                                                                          *
00078>        [TZERO =     .00 hrs on        0]                                                              *
00079>        [METOUT=   2   (1=imperial, 2=metric output)]                                                  *
00080>        [NSTORM=   1 ]                                                                                 *
00081>        [NRUN  = 0002 ]                                                                                *
00082> #*******************************************************************************
00083> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00084> #*******************************************************************************
00085> #  Project Name: [Jock River]      Project Number: [411-02]
00086> #  Date        : 06-06-2003
00087> #  Modeller    : [JoF]
00088> #  Company     : JFSAinc.
00089> #  License #   :  2549237
00090> #*******************************************************************************
00091> # CALIBRATION OF SUMMER MODEL PARAMETERS
00092> # USING CONTINUOUS SIMULATIONS
00093> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00094> # Use data collected from May 1st to July 14, 2003
00095> # ------------------------------------------------------------
00096> R0002: C00002-------------------------------------------------------------------------------------------
00097>        READ STORM                                                                                     *
00098>         Filename = storm001                                                                           *
00099>         Comment  = Pluie SCS de 24 hres 1:2 ans pour Ottawa CDA                                       *
00100>        [SDT=10.00: SDUR=  24.00: PTOT=  45.51]                                                        *
00101> R0002: C00003-------------------------------------------------------------------------------------------
00102>        MODIFY STORM                                                                                   *
00103>        [REACT=   1.00: TSHIFT= 960.00 min]                                                            *
00104>        [SDT=10.00: SDUR=  40.00: PTOT=  45.51]                                                        *
00105> R0002: C00004-------------------------------------------------------------------------------------------
00106>        COMPUTE API                                                                                    *
00107>        [APImin=  50.00: APIkdy=  .8500: APIkdt=  .9989]                                               *
00108>        [APImax=  80.12: APIavg=  56.74: APImin=  44.87]                                               *
00109> #
00110> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00111> # of 1.32
00112> R0002: C00005-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00113>      CONTINUOUS NASHYD      30. 0 01: JR_HW         3680. 00      6. 065 No_date   37: 00   11. 44 . 251      . 000
00114>        [CN= 64. 0: N= 3. 00: Tp= 7. 13]
00115>        [IaREC= 4. 00: SMN= 57. 05: SMX= 380. 32: SK= . 010]
00116>        [InterEventTime=  12. 00]
00117> #
00118> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00119> # of 1.32
00120> R0002: C00006-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00121>      CONTINUOUS NASHYD      30. 0 01: SW_13          971. 00      2. 154 No_date   32: 30   10. 72 . 236      . 000
00122>        [CN= 61. 0: N= 3. 00: Tp= 3. 76]
00123>        [IaREC= 4. 00: SMN= 64. 50: SMX= 430. 01: SK= . 010]
00124>        [InterEventTime=  12. 00]
00125> #
00126> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00127> # of 1.80
00128> R0002: C00007-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00129>      CONTINUOUS NASHYD      30. 0 01: JR_GWM        3074. 00      3. 115 No_date   39: 30    9. 41 . 207      . 000
00130>        [CN= 55. 0: N= 3. 00: Tp=11. 33]
00131>        [IaREC= 4. 00: SMN= 83. 24: SMX= 554. 96: SK= . 010]
00132>        [InterEventTime=  12. 00]
00133> R0002: C00008-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00134>      CONTINUOUS NASHYD      30. 0 01: JR_ASH        1781. 00      5. 417 No_date   32: 30   13. 91 . 306      . 000
00135>        [CN= 72. 0: N= 3. 00: Tp= 3. 91]
00136>        [IaREC= 4. 00: SMN= 39. 75: SMX= 264. 99: SK= . 010]
00137>        [InterEventTime=  12. 00]
00138> R0002: C00009-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00139>      CONTINUOUS NASHYD      30. 0 01: SW_11          500. 00      2. 663 No_date   29: 00   11. 95 . 263      . 000
00140>        [CN= 66. 0: N= 3. 00: Tp= 1. 24]
00141>        [IaREC= 4. 00: SMN= 52. 62: SMX= 350. 79: SK= . 010]
00142>        [InterEventTime=  12. 00]
00143> #
00144> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00145> # of 1. 80
00146> R0002: C00010-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00147>      CONTINUOUS NASHYD      30. 0 01: NN_CK         1917. 00      3. 966 No_date   34: 30   11. 95 . 263      . 000
00148>        [CN= 66. 0: N= 3. 00: Tp= 5. 29]
00149>        [IaREC= 4. 00: SMN= 52. 62: SMX= 350. 79: SK= . 010]
00150>        [InterEventTime=  12. 00]
00151> #
00152> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00153> # of 1. 52
00154> R0002: C00011-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00155>      CONTINUOUS NASHYD      30. 0 01: SW_10         5666. 00     10. 936 No_date   38: 00   13. 91 . 306      . 000
00156>        [CN= 72. 0: N= 3. 00: Tp= 8. 00]
00157>        [IaREC= 4. 00: SMN= 39. 75: SMX= 264. 99: SK= . 010]
00158>        [InterEventTime=  12. 00]
00159> #
00160> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00161> # of 1. 75
00162> R0002: C00012-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00163>      CONTINUOUS NASHYD      30. 0 01: EG_CK         8376. 00     10. 656 No_date   39: 30   11. 95 . 263      . 000
00164>        [CN= 66. 0: N= 3. 00: Tp=11. 66]
00165>        [IaREC= 4. 00: SMN= 52. 62: SMX= 350. 79: SK= . 010]
00166>        [InterEventTime=  12. 00]
00167> #
00168> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00169> # of 1. 68
00170> R0002: C00013-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00171>      CONTINUOUS NASHYD      30. 0 01: SW_9          1132. 00      4. 365 No_date   30: 30   13. 32 . 293      . 000
00172>        [CN= 70. 0: N= 3. 00: Tp= 2. 51]
00173>        [IaREC= 4. 00: SMN= 43. 07: SMX= 287. 10: SK= . 010]
00174>        [InterEventTime=  12. 00]
00175> #
00176> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00177> # of 1. 82
00178> R0002: C00014-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00179>      CONTINUOUS NASHYD      30. 0 01: NC_CK         4464. 00      5. 312 No_date   39: 30   10. 96 . 241      . 000
00180>        [CN= 62. 0: N= 3. 00: Tp=11. 32]
00181>        [IaREC= 4. 00: SMN= 61. 90: SMX= 412. 66: SK= . 010]
00182>        [InterEventTime=  12. 00]
00183> #
00184> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00185> # of 1. 80
00186> R0002: C00015-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00187> *    CONTINUOUS NASHYD      30. 0 01: SW_8          131. 00       .770 No_date   28: 30   11. 20 . 246      . 000
00188>        [CN= 63. 0: N= 3. 00: Tp=  . 90]
00189>        [IaREC= 4. 00: SMN= 59. 42: SMX= 396. 11: SK= . 010]
00190>        [InterEventTime=  12. 00]
00191> #
00192> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00193> # of 1. 65
00194> R0002: C00016-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00195>      CONTINUOUS NASHYD      30. 0 01: HB_DR         3854. 00      6. 083 No_date   38: 30   11. 95 . 263      . 000
00196>        [CN= 66. 0: N= 3. 00: Tp= 8. 42]
00197>        [IaREC= 4. 00: SMN= 52. 62: SMX= 350. 79: SK= . 010]
00198>        [InterEventTime=  12. 00]
00199> #
00200> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00201> # of 1. 82
00202> R0002: C00017-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00203>      CONTINUOUS NASHYD      30. 0 01: SW_7          3197. 00      4. 557 No_date   36: 30    9. 83 . 216      . 000
00204>        [CN= 57. 0: N= 3. 00: Tp= 6. 65]
00205>        [IaREC= 4. 00: SMN= 76. 32: SMX= 508. 81: SK= . 010]
00206>        [InterEventTime=  12. 00]
00207> #
00208> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00209> # of 1. 75
00210> R0002: C00018-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00211>      CONTINUOUS NASHYD      30. 0 01: SW_6          165. 00       .407 No_date   33: 00   12. 21 . 268      . 000
00212>        [CN= 67. 0: N= 3. 00: Tp= 4. 18]
00213>        [IaREC= 4. 00: SMN= 50. 55: SMX= 336. 97: SK= . 010]
00214>        [InterEventTime=  12. 00]
00215> #
00216> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00217> # of 1. 67
00218> R0002: C00019-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00219>      CONTINUOUS NASHYD      30. 0 01: VG_DR         1332. 00      3. 083 No_date   35: 00   13. 91 . 306      . 000
00220>        [CN= 72. 0: N= 3. 00: Tp= 5. 95]
00221>        [IaREC= 4. 00: SMN= 39. 75: SMX= 264. 99: SK= . 010]
00222>        [InterEventTime=  12. 00]
00223> R0002: C00020-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00224> *    CONTINUOUS NASHYD      30. 0 01: SW_5          224. 00      2. 527 No_date   28: 30   15. 88 . 349      . 000
00225>        [CN= 77. 0: N= 3. 00: Tp= . 75]
00226>        [IaREC= 4. 00: SMN= 31. 15: SMX= 207. 66: SK= . 010]
00227>        [InterEventTime=  12. 00]
00228> #
00229> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00230> # of 1. 20
00231> R0002: C00021-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00232>      CONTINUOUS NASHYD      30. 0 01: FL_CK         4945. 00     14. 579 No_date   33: 00   14. 54 . 319      . 000
00233>        [CN= 74. 0: N= 3. 00: Tp= 4. 45]
00234>        [IaREC= 4. 00: SMN= 36. 67: SMX= 244. 49: SK= . 010]
00235>        [InterEventTime=  12. 00]
00236> R0002: C00022-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00237> *    CONTINUOUS NASHYD      30. 0 01: SW_5A2          20. 00       .287 No_date   28: 30   17. 76 . 390      . 000
00238>        [CN= 81. 0: N= 3. 00: Tp= . 62]
00239>        [IaREC= 4. 00: SMN= 25. 21: SMX= 168. 09: SK= . 010]
00240>        [InterEventTime=  12. 00]
00241> #
00242> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00243> # of 1. 61
00244> R0002: C00023-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00245>      CONTINUOUS NASHYD      30. 0 01: SW_5A1        1412. 00      3. 007 No_date   38: 00   15. 19 . 334      . 000
00246>        [CN= 75. 0: N= 3. 00: Tp= 8. 00]
00247>        [IaREC= 4. 00: SMN= 33. 81: SMX= 225. 43: SK= . 010]
00248>        [InterEventTime=  12. 00]
00249> R0002: C00024-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00250>      CONTINUOUS NASHYD      30. 0 01: SW_4          585. 00      4. 232 No_date   29: 30   17. 76 . 390      . 000
00251>        [CN= 81. 0: N= 3. 00: Tp= 1. 75]
00252>        [IaREC= 4. 00: SMN= 25. 21: SMX= 168. 09: SK= . 010]
00253>        [InterEventTime=  12. 00]
00254> R0002: C00025-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00255>      CONTINUOUS NASHYD      30. 0 01: LM_CK         1021. 00      5. 667 No_date   30: 30   17. 36 . 382      . 000
00256>        [CN= 80. 0: N= 3. 00: Tp= 2. 46]
00257>        [IaREC= 4. 00: SMN= 26. 32: SMX= 175. 50: SK= . 010]
00258>        [InterEventTime=  12. 00]
00259> R0002: C00026-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00260> *    CONTINUOUS NASHYD      30. 0 01: SW_2          177. 00      1. 996 No_date   28: 30   15. 88 . 349      . 000
00261>        [CN= 77. 0: N= 3. 00: Tp= . 75]
00262>        [IaREC= 4. 00: SMN= 31. 15: SMX= 207. 66: SK= . 010]
00263>        [InterEventTime=  12. 00]
00264> R0002: C00027-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00265>      CONTINUOUS NASHYD      30. 0 01: SM_DR         1122. 00      5. 257 No_date   31: 30   17. 76 . 390      . 000
00266>        [CN= 81. 0: N= 3. 00: Tp= 3. 25]
00267>        [IaREC= 4. 00: SMN= 25. 21: SMX= 168. 09: SK= . 010]
00268>        [InterEventTime=  12. 00]
00269> R0002: C00028-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00270>      CONTINUOUS NASHYD      30. 0 01: MD_DR         2737. 00     11. 338 No_date   31: 30   15. 53 . 341      . 000
00271>        [CN= 76. 0: N= 3. 00: Tp= 3. 03]
00272>        [IaREC= 4. 00: SMN= 32. 46: SMX= 216. 39: SK= . 010]
00273>        [InterEventTime=  12. 00]
00274> R0002: C00029-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00275>      CONTINUOUS NASHYD      30. 0 01: SW_1          3176. 00     12. 490 No_date   32: 00   16. 23 . 357      . 000
00276>        [CN= 78. 0: N= 3. 00: Tp= 3. 56]
00277>        [IaREC= 4. 00: SMN= 29. 88: SMX= 199. 22: SK= . 010]
00278>        [InterEventTime=  12. 00]
00279> #
00280> # Routing hydrographs
00281> #
00282> # Starting with the addition of Jock River Headwater and Subwatershed 13
00283> #
00284> R0002: C00030-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00285>      ADD HYD                30. 0 02: JR_HW         3680. 00      6. 065 No_date   37: 00   11. 44  n/a      . 000
00286>                        +    30. 0 02: SW_13          971. 00      2. 154 No_date   32: 30   10. 72  n/a      . 000
00287>                      SUM=   30. 0 01: S_N13         4651. 00      7. 713 No_date   35: 30   11. 29  n/a      . 000
00288> #
00289> # Sum of hydrographs from Node 13 routed to Node 13A
00290> # (Approximated cross-section - see cross-section 258)
00291> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00292> #
00293> R0002: C00031-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00294>      ROUTE CHANNEL     ->     30. 0 02: S_N13         4651. 00      7. 713 No_date   35: 30   11. 29  n/a      . 000
00295>      [RDT=30.00]  out <-      30. 0 01: N13A          4651. 00      6. 154 No_date   39: 30   11. 29  n/a      . 000
00296>        [L/S/n= 9074. /  . 022/ . 040]
00297>        [Vmax=  . 427: Dmax= 2. 537]
00298> #
00299> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
00300> #
00301> R0002: C00032-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00302>      ADD HYD                30. 0 02: N13A          4651. 00      6. 154 No_date   39: 30   11. 29  n/a      . 000
00303>                        +    30. 0 02: JR_GWM        3074. 00      3. 115 No_date   39: 30    9. 41  n/a      . 000
00304>                      SUM=   30. 0 01: SN13A         7725. 00      9. 269 No_date   39: 30   10. 54  n/a      . 000
00305> #
00306> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
00307> #
00308> R0002: C00033-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00309>      ROUTE RESERVOIR   ->     30. 0 02: SN13A         7725. 00      9. 269 No_date   39: 30   10. 54  n/a      . 000
00310>                      out <=   30. 0 01: RES_GM        7725. 00      2. 603 No_date   55: 30   10. 54  n/a      . 000
00311>        [MxStokd=-. 3498E+02  m3]
00312> #
00313> R0002: C00034-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00314>      SAVE HYD               30. 0 01: RES_GM        7725. 00      2. 603 No_date   55: 30   10. 54  n/a      . 000
00315>        fname : H_RESGM
00316>        remark: Outflow from Res GM
00317> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
00318> # (Approximated cross-section - see cross-section 258)
00319> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00320> R0002: C00035-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00321>      ROUTE CHANNEL     ->     30. 0 02: RES_GM        7725. 00      2. 603 No_date   55: 30   10. 54  n/a      . 000
00322>      [RDT=30.00]  out <-      30. 0 01: N12           7725. 00      2. 594 No_date   58: 00   10. 54  n/a      . 000
00323>        [L/S/n= 5926. /  . 076/ . 040]
00324>        [Vmax=  . 501: Dmax= 1. 326]
00325> #
00326> # Addition of Subwatershed Jock River at Ashton to Node 12
00327> #
00328> R0002: C00036-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00329>      ADD HYD                30. 0 02: N12           7725. 00      2. 594 No_date   58: 00   10. 54  n/a      . 000
00330>                        +    30. 0 02: JR_ASH        1781. 00      5. 417 No_date   32: 30   13. 91  n/a      . 000
00331>                      SUM=   30. 0 01: S_N12         9506. 00      7. 371 No_date   32: 30   11. 17  n/a      . 000
00332> R0002: C00037-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00333>      SAVE HYD               30. 0 01: S_N12         9506. 00      7. 371 No_date   32: 30   11. 17  n/a      . 000
00334>        fname : H_SN12
00335>        remark: flow at S_N12 near Ashton
00336> #
00337> # Sum of hydrographs from Node 12 routed to Node 11
00338> # (Approximated cross-section - see cross-section 258)
00339> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00340> R0002: C00038-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00341>      ROUTE CHANNEL     ->     30. 0 02: S_N12         9506. 00      7. 371 No_date   32: 30   11. 17  n/a      . 000
00342>      [RDT=30.00]  out <-      30. 0 01: N11           9506. 00      7. 317 No_date   33: 00   11. 17  n/a      . 000
00343>        [L/S/n=  972. /  . 051/ . 040]
00344>        [Vmax=  . 580: Dmax= 2. 119]
00345> #
00346> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
00347> #
00348> R0002: C00039-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00349>      ROUTE CHANNEL     ->     30. 0 02: S_N12         9506. 00      7. 371 No_date   32: 30   11. 17  n/a      . 000
00350>      [RDT=30.00]  out <-      30. 0 01: Dam11         9506. 00      7. 320 No_date   33: 00   11. 17  n/a      . 000
00351>        [L/S/n=  972. /  . 054/ . 040]
00352>        [Vmax=  . 589: Dmax= 2. 098]
00353> #
00354> # Addition of Subwatershed 11 and No Name Creek to Node 11
00355> #
00356> R0002: C00040-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00357>      ADD HYD                30. 0 02: Dam11         9506. 00      7. 320 No_date   33: 00   11. 17  n/a      . 000
00358>                        +    30. 0 02: SW_11          500. 00      2. 663 No_date   29: 00   11. 95  n/a      . 000
00359>                        +    30. 0 02: NN_CK         1917. 00      3. 966 No_date   34: 30   11. 95  n/a      . 000
00360>                      SUM=   30. 0 01: S_N11         11923. 00     11. 951 No_date   33: 00   11. 33  n/a      . 000
00361> #
00362> # Sum of hydrographs from Node 11 routed to Node 10
00363> # Section 1
00364> #
00365> R0002: C00041-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00366>      ROUTE CHANNEL     ->     30. 0 02: S_N11         11923. 00     11. 951 No_date   33: 00   11. 33  n/a      . 000
00367>      [RDT=30.00]  out <-      30. 0 01: N10           11923. 00      8. 216 No_date   39: 30   11. 33  n/a      . 000
00368>        [L/S/n=14028. /  . 157/ . 040]
00369>        [Vmax=  . 460: Dmax=  . 881]
00370> #
00371> # Addition of Subwatershed 10 to Node 10
00372> #
00373> R0002: C00042-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
00374>      ADD HYD                30. 0 02: N10           11923. 00      8. 216 No_date   39: 30   11. 33  n/a      . 000
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00375>                          +     30.0 02: SW_10        5666.00   10.936 No_date   38:00   13.91  n/a      .000
00376>                        SUM=    30.0 01: S_N10        17589.00  19.098 No_date   38:30   12.16  n/a      .000
00377> R0002: C00043------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00378>       SAVE HYD              30.0 01: S_N10        17589.00  19.098 No_date   38:30   12.16  n/a      .000
00379>         fname : H_SN10
00380>         remark: flow at S_N10:  N10 + SW_10
00381> # Addition of Kings Creek to S_N10
00382> #
00383> R0002: C00044------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00384>       ADD HYD               30.0 02: S_N10        17589.00  19.098 No_date   38:30   12.16  n/a      .000
00385>                          +     30.0 02: KG_CK        8376.00   10.656 No_date   39:30   11.95  n/a      .000
00386>                        SUM=    30.0 01: S_N10A       25965.00  29.622 No_date   39:30   12.09  n/a      .000
00387> #
00388> # Sum of hydrographs from Node 10 routed to Node 9
00389> # Section 2
00390> #
00391> R0002: C00045------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00392>       ROUTE CHANNEL    ->     30.0 02: S_N10A       25965.00  29.622 No_date   39:30   12.09  n/a      .000
00393>         [RDT=30.00] out<-     30.0 01: N9           25965.00  28.881 No_date   39:30   12.09  n/a      .000
00394>         [L/S/n= 3982./ .075/.040]
00395>         {Vmx=  .591: Dmx= 1.193}
00396> #
00397> # Addition of Subwatershed 9 and Nichols Creek to Node 9
00398> #
00399> R0002: C00046------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00400>       ADD HYD               30.0 02: N9           25965.00  28.881 No_date   39:30   12.09  n/a      .000
00401>                          +     30.0 02: SW_9         1132.00   4.365 No_date   30:30   13.32  n/a      .000
00402>                          +     30.0 02: NC_CK        4464.00   5.312 No_date   39:30   10.96  n/a      .000
00403>                        SUM=    30.0 01: S_N9         31561.00  35.488 No_date   39:30   11.98  n/a      .000
00404> #
00405> # Sum of hydrographs from Node 9 routed to Node 8
00406> # Section 3
00407> #
00408> R0002: C00047------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00409>       ROUTE CHANNEL    ->     30.0 02: S_N9         31561.00  35.488 No_date   39:30   11.98  n/a      .000
00410>         [RDT=30.00] out<-     30.0 01: N8           31561.00  33.301 No_date   40:00   11.98  n/a      .000
00411>         [L/S/n= 2269./ .088/.045]
00412>         {Vmx=  .420: Dmx= 1.270}
00413> #
00414> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
00415> #
00416> R0002: C00048------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00417>       ADD HYD               30.0 02: N8           31561.00  33.301 No_date   40:00   11.98  n/a      .000
00418>                          +     30.0 02: SW_8          131.00    .770 No_date   28:30   11.20  n/a      .000
00419>                          +     30.0 02: HB_DR        3854.00   6.083 No_date   38:30   11.95  n/a      .000
00420>                        SUM=    30.0 01: S_N8         35546.00  39.356 No_date   39:30   11.97  n/a      .000
00421> #
00422> # Sum of hydrographs from Node 8 routed to Node 7
00423> # Section 4
00424> #
00425> R0002: C00049------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00426>       ROUTE CHANNEL    ->     30.0 02: S_N8         35546.00  39.356 No_date   39:30   11.97  n/a      .000
00427>         [RDT=30.00] out<-     30.0 01: N7           35546.00  32.170 No_date   44:00   11.97  n/a      .000
00428>         [L/S/n= 3750./ .053/.070]
00429>         {Vmx=  .209: Dmx= 1.635}
00430> #
00431> # Addition of Subwatershed 7 to Node 7
00432> #
00433> R0002: C00050------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00434>       ADD HYD               30.0 02: N7           35546.00  32.170 No_date   44:00   11.97  n/a      .000
00435>                          +     30.0 02: SW_7         3197.00   4.557 No_date   36:30   9.83   n/a      .000
00436>                        SUM=    30.0 01: S_N7         38743.00  34.345 No_date   43:00   11.79  n/a      .000
00437> R0002: C00051------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00438>       SAVE HYD              30.0 01: S_N7         38743.00  34.345 No_date   43:00   11.79  n/a      .000
00439>         fname : H_SN7
00440>         remark: flow at S_N7:  N7 + SW_7
00441> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
00442> # Storage area and volumes were estimated from available topo maps.
00443> # Release rate from fen was assumed to be controlled by the downstream
00444> # river cross-section for summer conditions.  It is was assumed that for up to
00445> # 0.75 m of water, the main channel of the river provided the storage.  Above
00446> # this depth, the wetland starts to significantly store water.
00447> #
00448> R0002: C00052------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00449>       ROUTE RESERVOIR ->     30.0 02: S_N7         38743.00  34.345 No_date   43:00   11.79  n/a      .000
00450>                        out <=    30.0 01: RES_RF       38743.00  23.075 No_date   54:30   11.79  n/a      .000
00451>         [MaxStorage= 7399E+02  m3]
00452> R0002: C00053------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00453>       SAVE HYD              30.0 01: RES_RF       38743.00  23.075 No_date   54:30   11.79  n/a      .000
00454>         fname : H_ResRF
00455>         remark: outflow of Richmond Fen
00456> #
00457> # Sum of hydrographs from Node 7 routed to Node 6
00458> # Section 5
00459> #
00460> R0002: C00054------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00461>       ROUTE CHANNEL    ->     30.0 02: RES_RF       38743.00  23.075 No_date   54:30   11.79  n/a      .000
00462>         [RDT=30.00] out<-     30.0 01: N6           38743.00  23.052 No_date   56:00   11.79  n/a      .000
00463>         [L/S/n= 3056./ .082/.025]
00464>         {Vmx=  .431: Dmx= .805}
00465> #
00466> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
00467> #
00468> R0002: C00055------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00469>       ADD HYD               30.0 02: N6           38743.00  23.052 No_date   56:00   11.79  n/a      .000
00470>                          +     30.0 02: SW_6          165.00    .407 No_date   33:00   12.21  n/a      .000
00471>                          +     30.0 02: VG_DR        1332.00   3.083 No_date   35:00   13.91  n/a      .000
00472>                        SUM=    30.0 01: S_N6         40240.01  23.225 No_date   39:30   11.87  n/a      .000
00473> #
00474> # Sum of hydrographs from Node 6 routed to Node 5
00475> # Section 6
00476> #
00477> R0002: C00056------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00478>       ROUTE CHANNEL    ->     40240.01 01: S_N6     40240.01  23.225 No_date   39:30   11.87  n/a      .000
00479>         [RDT=30.00] out<-     30.0 01: N5           40240.01  23.171 No_date   55:00   11.87  n/a      .000
00480>         [L/S/n= 1852./ .054/.035]
00481>         {Vmx=  .378: Dmx=  .915}
00482> #
00483> # Addition of Subwatershed 5 and Flowing Creek to Node 5
00484> #
00485> R0002: C00057------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00486>       ADD HYD               30.0 02: N5           40240.01  23.171 No_date   55:00   11.87  n/a      .000
00487>                          +     30.0 02: SW_5          224.00   2.527 No_date   28:30   15.88  n/a      .000
00488>                          +     30.0 02: FL_CK        4945.00   14.579 No_date   33:00   14.54  n/a      .000
00489>                        SUM=    30.0 01: S_N5         45409.01  32.974 No_date   37:00   12.18  n/a      .000
00490> #
00491> # Sum of hydrographs from Node 5 routed to Node 5A
00492> # Section 7
00493> #
00494> R0002: C00058------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00495>       ROUTE CHANNEL    ->     30.0 02: S_N5         45409.01  32.974 No_date   37:00   12.18  n/a      .000
00496>         [RDT=30.00] out<-     30.0 01: N5A          45409.01  32.921 No_date   37:00   12.18  n/a      .000
00497>         [L/S/n=  556./ .090/.040]
00498>         {Vmx=  .443: Dmx=  .935}
00499> #
00500> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
00501> #
00502> R0002: C00059------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00503>       ADD HYD               30.0 02: N5A          45409.01  32.921 No_date   37:00   12.18  n/a      .000
00504>                          +     30.0 02: SW_5A2         20.00    .287 No_date   28:30   17.76  n/a      .000
00505>                          +     30.0 02: SW_5A1       1412.00   3.007 No_date   38:00   15.19  n/a      .000
00506>                        SUM=    30.0 01: S_N5A        46841.01  35.939 No_date   37:00   12.27  n/a      .000
00507> #
00508> # Sum of hydrographs from Node 5A routed to Node 4
00509> # Section 8
00510> #
00511> R0002: C00060------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00512>       ROUTE CHANNEL    ->     30.0 02: S_N5A        46841.01  35.939 No_date   37:00   12.27  n/a      .000
00513>         [RDT=30.00] out<-     30.0 01: N4           46841.01  35.066 No_date   39:00   12.27  n/a      .000
00514>         [L/S/n= 4630./ .043/.035]
00515>         {Vmx=  .693: Dmx= 2.836}
00516> #
00517> # Addition of Subwatershed 4 and Leamy Creek to Node 4
00518> #
00519> R0002: C00061------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00520>       ADD HYD               30.0 02: N4           46841.01  35.066 No_date   39:00   12.27  n/a      .000
00521>                          +     30.0 02: SW_4          585.00   4.232 No_date   29:30   17.76  n/a      .000
00522>                          +     30.0 02: LM_CK        1021.00   5.667 No_date   30:30   17.36  n/a      .000
00523>                        SUM=    30.0 01: S_N4         48447.00  37.399 No_date   38:30   12.44  n/a      .000
00524> R0002: C00062------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00525>       SAVE HYD              30.0 01: S_N4         48447.00  37.399 No_date   38:30   12.44  n/a      .000
00526>         fname : S_N4. 0002
00527>         remark: flow at S_N4
00528> #
00529> # Sum of hydrographs from Node 4 routed to Node 2
00530> # Section 9
00531> #
00532> R0002: C00063------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00533>       ROUTE CHANNEL    ->     30.0 02: S_N4         48447.00  37.399 No_date   38:30   12.44  n/a      .000
00534>         [RDT=30.00] out<-     30.0 01: N2           48447.00  37.299 No_date   39:00   12.44  n/a      .000
00535>         [L/S/n= 1667./ .060/.040]
00536>         {Vmx=  .714: Dmx= 2.841}
00537> #
00538> # Addition of Subwatershed 2 with Monahan Drain and Smith Drain to Node 2
00539> #
00540> R0002: C00064------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00541>       ADD HYD               30.0 02: N2           48447.00  37.299 No_date   39:00   12.44  n/a      .000
00542>                          +     30.0 02: SW_2          177.00   1.996 No_date   28:30   15.88  n/a      .000
00543>                          +     30.0 02: SM_DR        1122.00   5.257 No_date   31:30   17.76  n/a      .000
00544>                          +     30.0 02: MD_DR        2737.00   11.338 No_date   31:30   15.53  n/a      .000
00545>                        SUM=    30.0 01: S_N2         52483.00  45.676 No_date   33:30   12.73  n/a      .000
00546> R0002: C00065------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00547>       SAVE HYD              30.0 01: S_N2         52483.00  45.676 No_date   33:30   12.73  n/a      .000
00548>         fname : H_SN2
00549>         remark: flow at S_N2 Jock River Gauge at Moodie Dr.
00550> #
00551> # Sum of hydrographs from Node 2 routed to Node 1
00552> # Section 10
00553> #
00554> R0002: C00066------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00555>       ROUTE CHANNEL    ->     30.0 02: S_N2         52483.00  45.676 No_date   33:30   12.73  n/a      .000
00556>         [RDT=30.00] out<-     30.0 01: N1           52483.00  42.605 No_date   39:30   12.73  n/a      .000
00557>         [L/S/n=10046./ .050/.040]
00558>         {Vmx=  .767: Dmx= 2.662}
00559> #
00560> # Addition of Subwatershed 1 to Node 1
00561> #

00562> R0002: C00067------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00563>       ADD HYD               30.0 02: N1           52483.00  42.605 No_date   39:30   12.73  n/a      .000
00564>                          +     30.0 02: SW_1         3176.00   12.490 No_date   32:00   16.23  n/a      .000
00565>                        SUM=    30.0 01: N1           55659.00  49.164 No_date   36:30   12.93  n/a      .000
00566> R0002: C00068------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00567>       SAVE HYD              30.0 01: N1           55659.00  49.164 No_date   36:30   12.93  n/a      .000
00568>         fname : N1. 0002
00569>         remark: total outflow of Jock River
00570> ##########################################################################
00571>   ** END OF RUN :  4
00572>
00573> ****************************************************************************************************
00574>
00575>
00576>
00577>
00578>
00579>  RUN#: COMMAND#
00580> R0005: C00001------------------------------------------------------------------------------------
00581>       START
00582>         [TZERO =     .00 hrs on          0]
00583>         [METOUT=    2    (1=imperial, 2=metric output)]
00584>         [NSTORM=    1 ]
00585>         [NRUN  = 0005 ]
00586> ##########################################################################
00587> #   SWMHYMO Ver: 5.02/Jan 2001 <BETA> / INPUT DATA FILE
00588> ##########################################################################
00589> #  Project Name: [Jock River]     Project Number: [411-02]
00590> #  Date        : 06-06-2003
00591> #  Modeller    : [JoF]
00592> #  Company     : JFSAinc.
00593> #  License #   :  2549237
00594> ##########################################################################
00595> # CALIBRATION OF SUMMER MODEL PARAMETERS
00596> # USING CONTINUOUS SIMULATIONS
00597> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00598> # Use data collected from May 1st to July 14, 2003
00599> # ------------------------------------------------------------------------
00600> R0005: C00002------------------------------------------------------------------------------------
00601>       READ STORM
00602>         Filename = storm_001
00603>         Comment  = Pluie SCS de 24 hres 1:5 ans pour Ottawa CDA
00604>         [SDT=10.00: SDUR=  24.00: PTOT=  57.12]
00605> R0005: C00003------------------------------------------------------------------------------------
00606>       MODIFY STORM
00607>         [RFACT=  1.00: TSHIFT= 960.00 min]
00608>         [SDT=10.00: SDUR=  40.00: PTOT=  57.12]
00609> R0005: C00004------------------------------------------------------------------------------------
00610>       COMPUTE API
00611>         [APImi= 50.00:  APIkdy= .8500:  APIkdt= .9989]
00612>         [APImax= 90.83:  APIavg= 60.09:  APImin= 44.87]
00613> #
00614> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00615> # of 1.32
00616> R0005: C00005------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00617>       CONTINUOUS NASHYD     30.0 01: JR_HW        3680.00   9.169 No_date   37:00   16.38 .287      .000
00618>         [CN= 64.0:  N= 3.00:  Tp= 7.13]
00619>         [IaREC= 4.00:  SMN= 57.05:  SMX=380.32:  SK= .010]
00620>         [InterEventTime= 12.00]
00621> #
00622> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00623> # of 1.32
00624> R0005: C00006------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00625>       CONTINUOUS NASHYD     30.0 01: SW_13         971.00   3.350 No_date   32:30   15.27 .267      .000
00626>         [CN= 61.0:  N= 3.00:  Tp= 3.76]
00627>         [IaREC= 4.00:  SMN= 64.50:  SMX=430.01:  SK= .010]
00628>         [InterEventTime= 12.00]
00629> #
00630> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00631> # of 1.80
00632> R0005: C00007------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00633>       CONTINUOUS NASHYD     30.0 01: JR_GWM       3074.00   4.511 No_date   39:30   13.20 .231      .000
00634>         [CN= 55.0:  N= 3.00:  Tp=11.33]
00635>         [IaREC= 4.00:  SMN= 83.24:  SMX=554.96:  SK= .010]
00636>         [InterEventTime= 12.00]
00637> R0005: C00008------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00638>       CONTINUOUS NASHYD     30.0 01: JR_ASH       1781.00   8.382 No_date   32:30   20.09 .352      .000
00639>         [CN= 72.0:  N= 3.00:  Tp= 3.91]
00640>         [IaREC= 4.00:  SMN= 39.75:  SMX=264.99:  SK= .010]
00641>         [InterEventTime= 12.00]
00642> R0005: C00009------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00643>       CONTINUOUS NASHYD     30.0 01: SW_11         500.00   4.260 No_date   29:00   17.15 .300      .000
00644>         [CN= 66.0:  N= 3.00:  Tp= 1.24]
00645>         [IaREC= 4.00:  SMN= 52.62:  SMX=350.79:  SK= .010]
00646>         [InterEventTime= 12.00]
00647> #
00648> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00649> # of 1.80
00650> R0005: C00010------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00651>       CONTINUOUS NASHYD     30.0 01: NN_CK        1917.00   6.085 No_date   34:00   17.15 .300      .000
00652>         [CN= 66.0:  N= 3.00:  Tp= 5.29]
00653>         [IaREC= 4.00:  SMN= 52.62:  SMX=350.79:  SK= .010]
00654>         [InterEventTime= 12.00]
00655> #
00656> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00657> # of 1.52
00658> R0005: C00011------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00659>       CONTINUOUS NASHYD     30.0 01: SW_10        5666.00   16.454 No_date   38:00   20.09 .352      .000
00660>         [CN= 72.0:  N= 3.00:  Tp= 8.00]
00661>         [IaREC= 4.00:  SMN= 39.75:  SMX=264.99:  SK= .010]
00662>         [InterEventTime= 12.00]
00663> #
00664> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00665> # of 1.75
00666> R0005: C00012------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00667>       CONTINUOUS NASHYD     30.0 01: KG_CK        8376.00   15.668 No_date   39:30   17.15 .300      .000
00668>         [CN= 66.0:  N= 3.00:  Tp=11.66]
00669>         [IaREC= 4.00:  SMN= 52.62:  SMX=350.79:  SK= .010]
00670>         [InterEventTime= 12.00]
00671> #
00672> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00673> # of 1.68
00674> R0005: C00013------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00675>       CONTINUOUS NASHYD     30.0 01: SW_9         1132.00   6.854 No_date   30:30   19.22 .336      .000
00676>         [CN= 70.0:  N= 3.00:  Tp= 2.51]
00677>         [IaREC= 4.00:  SMN= 43.07:  SMX=287.10:  SK= .010]
00678>         [InterEventTime= 12.00]
00679> #
00680> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00681> # of 1.82
00682> R0005: C00014------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00683>       CONTINUOUS NASHYD     30.0 01: NC_CK        4464.00   7.795 No_date   39:30   15.63 .274      .000
00684>         [CN= 62.0:  N= 3.00:  Tp=11.32]
00685>         [IaREC= 4.00:  SMN= 61.90:  SMX=412.66:  SK= .010]
00686>         [InterEventTime= 12.00]
00687> #
00688> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00689> # of 1.80
00690> R0005: C00015------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00691> *     CONTINUOUS NASHYD     30.0 01: SW_8         131.00    1.239 No_date   28:30   16.00 .280      .000
00692>         [CN= 63.0:  N= 3.00:  Tp=  .90]
00693>         [IaREC= 4.00:  SMN= 59.42:  SMX=396.11:  SK= .010]
00694>         [InterEventTime= 12.00]
00695> #
00696> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00697> # of 1.65
00698> R0005: C00016------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00699>       CONTINUOUS NASHYD     30.0 01: HB_DR        3854.00   9.126 No_date   38:30   17.15 .300      .000
00700>         [CN= 66.0:  N= 3.00:  Tp= 8.42]
00701>         [IaREC= 4.00:  SMN= 52.62:  SMX=350.79:  SK= .010]
00702>         [InterEventTime= 12.00]
00703> #
00704> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00705> # of 1.82
00706> R0005: C00017------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00707>       CONTINUOUS NASHYD     30.0 01: SW_7         3197.00   6.873 No_date   36:00   13.87 .243      .000
00708>         [CN= 57.0:  N= 3.00:  Tp= 6.65]
00709>         [IaREC= 4.00:  SMN= 76.32:  SMX=508.81:  SK= .010]
00710>         [InterEventTime= 12.00]
00711> #
00712> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00713> # of 1.75
00714> R0005: C00018------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00715>       CONTINUOUS NASHYD     30.0 01: SW_6          165.00    .630 No_date   33:00   17.55 .307      .000
00716>         [CN= 67.0:  N= 3.00:  Tp= 4.18]
00717>         [IaREC= 4.00:  SMN= 50.55:  SMX=336.97:  SK= .010]
00718>         [InterEventTime= 12.00]
00719> #
00720> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00721> # of 1.67
00722> R0005: C00019------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00723>       CONTINUOUS NASHYD     30.0 01: VG_DR        1332.00   4.700 No_date   35:00   20.09 .352      .000
00724>         [CN= 72.0:  N= 3.00:  Tp= 5.95]
00725>         [IaREC= 4.00:  SMN= 39.75:  SMX=264.99:  SK= .010]
00726>         [InterEventTime= 12.00]
00727> R0005: C00020------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00728> *     CONTINUOUS NASHYD     30.0 01: SW_5         224.00   3.985 No_date   28:30   22.94 .402      .000
00729>         [CN= 77.0:  N= 3.00:  Tp=  .75]
00730>         [IaREC= 4.00:  SMN= 31.15:  SMX=207.66:  SK= .010]
00731>         [InterEventTime= 12.00]
00732> #
00733> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00734> # of 1.20
00735> R0005: C00021------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00736>       CONTINUOUS NASHYD     30.0 01: FL_CK        4945.00   22.432 No_date   33:00   21.01 .368      .000
00737>         [CN= 74.0:  N= 3.00:  Tp= 4.45]
00738>         [IaREC= 4.00:  SMN= 36.67:  SMX=244.49:  SK= .010]
00739>         [InterEventTime= 12.00]
00740> R0005: C00022------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
00741> *     CONTINUOUS NASHYD     30.0 01: SW_5A2        20.00     .448 No_date   28:30   25.59 .448      .000
00742>         [CN= 81.0:  N= 3.00:  Tp=  .62]
00743>         [IaREC= 4.00:  SMN= 25.21:  SMX=168.09:  SK= .010]
00744>         [InterEventTime= 12.00]
00745> #
00746> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
00747> # of 1.61
00748> R0005: C00023------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
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00749>      CONTINUOUS NASHYD        30.0 01:SW_5A1       1412.00     4.515 No_date   37:30   21.96 .384      .000
00750>        [CN= 75.0: N= 3.00: Tp= 8.00]
00751>        [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
00752>        [InterEventTime= 12.00]
00753> R0005:C00024-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00754>      CONTINUOUS NASHYD        30.0 01:SW_4         585.00     6.551 No_date   29:30   25.59 .448      .000
00755>        [CN= 81.0: N= 3.00: Tp= 1.75]
00756>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00757>        [InterEventTime= 12.00]
00758> R0005:C00025-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00759>      CONTINUOUS NASHYD        30.0 01:LM_CK        1021.00     8.738 No_date   30:30   25.04 .438      .000
00760>        [CN= 80.0: N= 3.00: Tp= 2.46]
00761>        [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
00762>        [InterEventTime= 12.00]
00763> R0005:C00026-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00764> *    CONTINUOUS NASHYD        30.0 01:SW_2         177.00     3.149 No_date   28:30   22.94 .402      .000
00765>        [CN= 77.0: N= 3.00: Tp= .75]
00766>        [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00767>        [InterEventTime= 12.00]
00768> R0005:C00027-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00769>      CONTINUOUS NASHYD        30.0 01:SM_DR        1122.00     8.043 No_date   31:30   25.59 .448      .000
00770>        [CN= 81.0: N= 3.00: Tp= 3.25]
00771>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00772>        [InterEventTime= 12.00]
00773> R0005:C00028-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00774>      CONTINUOUS NASHYD        30.0 01:MD_DR        2737.00    17.548 No_date   31:30   22.44 .393      .000
00775>        [CN= 76.0: N= 3.00: Tp= 3.03]
00776>        [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
00777>        [InterEventTime= 12.00]
00778> R0005:C00029-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00779>      CONTINUOUS NASHYD        30.0 01:SW_1        3176.00    19.206 No_date   32:00   23.45 .411      .000
00780>        [CN= 78.0: N= 3.00: Tp= 3.56]
00781>        [IaREC= 4.00: SMN= 29.88: SMX=199.22: SK= .010]
00782>        [InterEventTime= 12.00]
00783> #
00784> # Routing hydrographs
00785> #
00786> # Starting with the addition of Jock River Headwater and Subwatershed 13
00787> #
00788> R0005:C00030-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00789>      ADD HYD                  30.0 02:JR_HW        3680.00     9.169 No_date   37:00   16.38 n/a       .000
00790>                           +   30.0 02:SW_13         971.00     3.350 No_date   32:30   15.27 n/a       .000
00791>                       SUM=    30.0 01:S_N13       4651.00    11.688 No_date   35:30   16.15 n/a       .000
00792> #
00793> # Sum of hydrographs from Node 13 routed to Node 13A
00794> # (Approximated cross-section - see cross-section 258)
00795> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00796> #
00797> R0005:C00031-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00798>      ROUTE CHANNEL     ->     30.0 02:S_N13       4651.00    11.688 No_date   35:30   16.15 n/a       .000
00799>        [RDT=30.00] out<-      30.0 01:N13A        4651.00     9.343 No_date   39:30   16.15 n/a       .000
00800>        [L/S/n= 9074./ .022/ .040]
00801>        [Vmx= .475: Dmx= 2.992]
00802> #
00803> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
00804> #
00805> R0005:C00032-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00806>      ADD HYD                  30.0 02:N13A        4651.00     9.343 No_date   39:30   16.15 n/a       .000
00807>                           +   30.0 02:JR_GWM      3074.00     4.511 No_date   39:30   13.20 n/a       .000
00808>                       SUM=    30.0 01:SN13A       7725.00    13.855 No_date   39:30   14.97 n/a       .000
00809> #
00810> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
00811> #
00812> R0005:C00033-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00813>      ROUTE RESERVOIR   ->     30.0 02:SN13A       7725.00    13.855 No_date   39:30   14.97 n/a       .000
00814>                           out <=  30.0 01:RES_GM      7725.00     3.124 No_date   58:00   14.97 n/a       .000
00815>        [MxStoUsed= 6193E+02  m3]
00816> #
00817> R0005:C00034-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00818>      SAVE HYD                 30.0 01:RES_GM       7725.00     3.124 No_date   58:00   14.97 n/a       .000
00819>          fname: H_RESGM
00820>          remark: Outflow from Res GM
00821> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
00822> # (Approximated cross-section - see cross-section 258)
00823> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00824> R0005:C00035-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00825>      ROUTE CHANNEL     ->     30.0 02:RES_GM       7725.00     3.124 No_date   58:00   14.97 n/a       .000
00826>        [RDT=30.00] out<-      30.0 01:N12         7725.00     3.114 No_date   60:30   14.97 n/a       .000
00827>        [L/S/n= 5926./ .076/ .040]
00828>        [Vmx= .525: Dmx= 1.424]
00829> #
00830> # Addition of Subwatershed Jock River at Ashton to Node 12
00831> #
00832> R0005:C00036-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00833>      ADD HYD                  30.0 02:N12         7725.00     3.114 No_date   60:30   14.97 n/a       .000
00834>                           +   30.0 02:JR_ASH      1781.00     8.382 No_date   32:30   20.09 n/a       .000
00835>                       SUM=    30.0 01:S_N12       9506.00    10.361 No_date   32:30   15.93 n/a       .000
00836> R0005:C00037-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00837>      SAVE HYD                 30.0 01:S_N12        9506.00    10.361 No_date   32:30   15.93 n/a       .000
00838>          fname: H_SN12
00839>          remark: flow at S_N12 near Ashton
00840> #
00841> # Sum of hydrographs from Node 12 routed to Node 11
00842> # (Approximated cross-section - see cross-section 258)
00843> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00844> R0005:C00038-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00845>      ROUTE CHANNEL     ->     30.0 02:S_N12        9506.00    10.361 No_date   32:30   15.93 n/a       .000
00846>        [RDT=30.00] out<-      30.0 01:N11         9506.00    10.228 No_date   33:00   15.93 n/a       .000
00847>        [L/S/n= 972./ .051/ .040]
00848>        [Vmx= .634: Dmx= 2.417]
00849> #
00850> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
00851> #
00852> R0005:C00039-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00853>      ROUTE CHANNEL     ->     30.0 02:S_N12        9506.00    10.361 No_date   32:30   15.93 n/a       .000
00854>        [RDT=30.00] out<-      30.0 01:Dam11       9506.00    10.240 No_date   33:00   15.93 n/a       .000
00855>        [L/S/n= 972./ .054/ .040]
00856>        [Vmx= .645: Dmx= 2.392]
00857> #
00858> # Addition of Subwatershed 11 and No Name Creek to Node 11
00859> #
00860> R0005:C00040-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00861>      ADD HYD                  30.0 02:Dam11       9506.00    10.240 No_date   33:00   15.93 n/a       .000
00862>                           +   30.0 02:SW_11         500.00     4.260 No_date   29:00   17.15 n/a       .000
00863>                           +   30.0 02:NN_CK        1917.00     6.085 No_date   34:00   17.15 n/a       .000
00864>                       SUM=    30.0 01:S_N11      11923.00    17.312 No_date   33:00   16.18 n/a       .000
00865> #
00866> # Sum of hydrographs from Node 11 routed to Node 10
00867> # Section 1
00868> #
00869> R0005:C00041-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00870>      ROUTE CHANNEL     ->     30.0 02:S_N11       11923.00    17.312 No_date   33:00   16.18 n/a       .000
00871>        [RDT=30.00] out<-      30.0 01:N10         11923.00    11.896 No_date   38:30   16.18 n/a       .000
00872>        [L/S/n=14028./ .157/ .040]
00873>        [Vmx= .462: Dmx= 1.078]
00874> #
00875> # Addition of Subwatershed 10 to Node 10
00876> #
00877> R0005:C00042-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00878>      ADD HYD                  30.0 02:N10         11923.00    11.896 No_date   38:30   16.18 n/a       .000
00879>                           +   30.0 02:SW_10        5666.00    16.454 No_date   38:00   20.09 n/a       .000
00880>                       SUM=    30.0 01:S_N10       17589.00    28.336 No_date   38:00   17.44 n/a       .000
00881> R0005:C00043-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00882>      SAVE HYD                 30.0 01:S_N10       17589.00    28.336 No_date   38:00   17.44 n/a       .000
00883>          fname: H_SN10
00884>          remark: flow at S_N10: N10 + SW10
00885> # Addition of Kings Creek to S_N10
00886> #
00887> R0005:C00044-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00888>      ADD HYD                  30.0 02:S_N10       17589.00    28.336 No_date   38:00   17.44 n/a       .000
00889>                           +   30.0 02:KG_CK        8376.00    15.668 No_date   39:30   17.15 n/a       .000
00890>                       SUM=    30.0 01:S_N10A      25965.00    43.586 No_date   39:30   17.35 n/a       .000
00891> #
00892> # Sum of hydrographs from Node 10 routed to Node 9
00893> # Section 2
00894> #
00895> R0005:C00045-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00896>      ROUTE CHANNEL     ->     30.0 02:S_N10A      25965.00    43.586 No_date   39:30   17.35 n/a       .000
00897>        [RDT=30.00] out<-      30.0 01:N9          25965.00    42.441 No_date   39:30   17.35 n/a       .000
00898>        [L/S/n= 3982./ .075/ .040]
00899>        [Vmx= .663: Dmx= 1.480]
00900> #
00901> # Addition of Subwatershed 9 and Nichols Creek to Node 9
00902> #
00903> R0005:C00046-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00904>      ADD HYD                  30.0 02:N9          25965.00    42.441 No_date   39:30   17.35 n/a       .000
00905>                           +   30.0 02:SW_9         1132.00     6.854 No_date   30:30   19.22 n/a       .000
00906>                           +   30.0 02:NC_CK        4464.00     7.795 No_date   39:30   15.63 n/a       .000
00907>                       SUM=    30.0 01:S_N9        31561.00    52.066 No_date   39:30   17.17 n/a       .000
00908> #
00909> # Sum of hydrographs from Node 9 routed to Node 8
00910> # Section 3
00911> #
00912> R0005:C00047-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00913>      ROUTE CHANNEL     ->     30.0 02:S_N9        31561.00    52.066 No_date   39:30   17.17 n/a       .000
00914>        [RDT=30.00] out<-      30.0 01:N8          31561.00    48.431 No_date   40:00   17.17 n/a       .000
00915>        [L/S/n= 2269./ .088/ .045]
00916>        [Vmx= .371: Dmx= 1.510]
00917> #
00918> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
00919> #
00920> R0005:C00048-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00921>      ADD HYD                  30.0 02:N8          31561.00    48.431 No_date   40:00   17.17 n/a       .000
00922>                           +   30.0 02:SW_8         131.00     1.239 No_date   28:30   16.00 n/a       .000
00923>                           +   30.0 02:HB_DR        3854.00     9.126 No_date   38:30   17.15 n/a       .000
00924>                       SUM=    30.0 01:S_N8        35546.00    57.169 No_date   39:30   17.17 n/a       .000
00925> #
00926> # Sum of hydrographs from Node 8 routed to Node 7
00927> # Section 4
00928> #
00929> R0005:C00049-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00930>      ROUTE CHANNEL     ->     30.0 02:S_N8        35546.00    57.169 No_date   39:30   17.17 n/a       .000
00931>        [RDT=30.00] out<-      30.0 01:N7          35546.00    46.889 No_date   45:00   17.17 n/a       .000
00932>        [L/S/n= 3750./ .053/ .070]
00933>        [Vmx= .207: Dmx= 1.839]
00934> #
00935> # Addition of Subwatershed 7 to Node 7
00936> #
00937> R0005:C00050-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00938>      ADD HYD                  30.0 02:N7          35546.00    46.889 No_date   45:00   17.17 n/a       .000
00939>                           +   30.0 02:SW_7         3197.00     6.873 No_date   36:00   13.87 n/a       .000
00940>                       SUM=    30.0 01:S_N7        38743.00    50.119 No_date   43:30   16.89 n/a       .000
00941> R0005:C00051-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00942>      SAVE HYD                 30.0 01:S_N7        38743.00    50.119 No_date   43:30   16.89 n/a       .000
00943>          fname: H_SN7
00944>          remark: flow at S_N7: N7 + SW_7
00945> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
00946> # Storage area and volumes were estimated from available topo maps.
00947> # Rate of flow from fen was assumed to be controlled by the downstream
00948> # river cross-section for summer conditions.  It is was assumed that for up to
00949> # 0.75 m of water, the main channel of the river provided the storage.  Above
00950> # this depth, the wetland starts to signigicantly store water.
00951> #
00952> R0005:C00052-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00953>      ROUTE RESERVOIR   ->     30.0 02:S_N7        38743.00    50.119 No_date   43:30   16.89 n/a       .000
00954>                           out <=  30.0 01:RES_RF      38743.00    27.645 No_date   59:00   16.89 n/a       .000
00955>        [MxStoUsed= 1713E+03  m3]
00956> R0005:C00053-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00957>      SAVE HYD                 30.0 01:RES_RF      38743.00    27.645 No_date   59:00   16.89 n/a       .000
00958>          fname: H_RESRF
00959>          remark: outflow of Richmond Fen
00960> #
00961> # Sum of hydrographs from Node 7 routed to Node 6
00962> # Section 5
00963> #
00964> R0005:C00054-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00965>      ROUTE CHANNEL     ->     30.0 02:RES_RF      38743.00    27.645 No_date   59:00   16.89 n/a       .000
00966>        [RDT=30.00] out<-      30.0 01:N6          38743.00    27.614 No_date   60:00   16.89 n/a       .000
00967>        [L/S/n= 3056./ .082/ .025]
00968>        [Vmx= .458: Dmx= .889]
00969> #
00970> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
00971> #
00972> R0005:C00055-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00973>      ADD HYD                  30.0 02:N6          38743.00    27.614 No_date   60:00   16.89 n/a       .000
00974>                           +   30.0 02:SW_6         165.00      .630 No_date   33:00   17.55 n/a       .000
00975>                           +   30.0 02:VG_DR        1332.00     4.700 No_date   35:00   20.09 n/a       .000
00976>                       SUM=    30.0 01:S_N6        40240.01    27.687 No_date   59:30   17.00 n/a       .000
00977> #
00978> # Sum of hydrographs from Node 6 routed to Node 5
00979> # Section 6
00980> #
00981> R0005:C00056-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00982>      ROUTE CHANNEL     ->     30.0 02:S_N6        40240.01    27.687 No_date   59:30   17.00 n/a       .000
00983>        [RDT=30.00] out<-      30.0 01:N5          40240.01    27.652 No_date   59:30   17.00 n/a       .000
00984>        [L/S/n= 1852./ .054/ .035]
00985>        [Vmx= .396: Dmx= .997]
00986> #
00987> # Addition of Subwatershed 5 and Flowing Creek to Node 5
00988> #
00989> R0005:C00057-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00990>      ADD HYD                  30.0 02:N5          40240.01    27.652 No_date   59:30   17.00 n/a       .000
00991>                           +   30.0 02:SW_5         224.00     3.985 No_date   28:30   22.94 n/a       .000
00992>                           +   30.0 02:FL_CK        4945.00    22.432 No_date   33:00   21.01 n/a       .000
00993>                       SUM=    30.0 01:S_N5        45409.01    43.197 No_date   35:00   17.47 n/a       .000
00994> #
00995> # Sum of hydrographs from Node 5 routed to Node 5A
00996> # Section 7
00997> #
00998> R0005:C00058-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
00999>      ROUTE CHANNEL     ->     30.0 02:S_N5        45409.01    43.197 No_date   35:00   17.47 n/a       .000
01000>        [RDT=30.00] out<-      30.0 01:N5A         45409.01    43.159 No_date   35:30   17.47 n/a       .000
01001>        [L/S/n= 556./ .090/ .040]
01002>        [Vmx= .464: Dmx= 1.057]
01003> #
01004> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
01005> #
01006> R0005:C00059-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01007>      ADD HYD                  30.0 02:N5A         45409.01    43.159 No_date   35:30   17.47 n/a       .000
01008>                           +   30.0 02:SW_5A2        20.00      .448 No_date   28:30   25.59 n/a       .000
01009>                           +   30.0 02:SW_5A1      1412.00     4.515 No_date   37:30   21.96 n/a       .000
01010>                       SUM=    30.0 01:S_N5A       46841.01    47.514 No_date   35:30   17.61 n/a       .000
01011> #
01012> # Sum of hydrographs from Node 5A routed to Node 4
01013> # Section 8
01014> #
01015> R0005:C00060-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01016>      ROUTE CHANNEL     ->     30.0 02:S_N5A       46841.01    47.514 No_date   35:30   17.61 n/a       .000
01017>        [RDT=30.00] out<-      30.0 01:N4          46841.01    45.852 No_date   37:30   17.61 n/a       .000
01018>        [L/S/n= 4630./ .043/ .035]
01019>        [Vmx= .753: Dmx= 3.105]
01020> #
01021> # Addition of Subwatershed 4 and Leamy Creek to Node 4
01022> #
01023> R0005:C00061-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01024>      ADD HYD                  30.0 02:N4          46841.01    45.852 No_date   37:30   17.61 n/a       .000
01025>                           +   30.0 02:SW_4         585.00     6.551 No_date   29:30   25.59 n/a       .000
01026>                           +   30.0 02:LM_CK        1021.00     8.738 No_date   30:30   25.04 n/a       .000
01027>                       SUM=    30.0 01:S_N4        48447.00    49.994 No_date   36:30   17.86 n/a       .000
01028> R0005:C00062-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01029>      SAVE HYD                 30.0 01:S_N4        48447.00    49.994 No_date   36:30   17.86 n/a       .000
01030>          fname: S_N4. 0005
01031>          remark: flow at S_N4
01032> #
01033> # Sum of hydrographs from Node 4 routed to Node 2
01034> # Section 9
01035> #
01036> R0005:C00063-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01037>      ROUTE CHANNEL     ->     30.0 02:S_N4        48447.00    49.994 No_date   36:30   17.86 n/a       .000
01038>        [RDT=30.00] out<-      30.0 01:N2          48447.00    49.884 No_date   37:00   17.86 n/a       .000
01039>        [L/S/n= 1667./ .060/ .040]
01040>        [Vmx= .780: Dmx= 3.124]
01041> #
01042> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
01043> #
01044> R0005:C00064-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01045>      ADD HYD                  30.0 02:N2          48447.00    49.884 No_date   37:00   17.86 n/a       .000
01046>                           +   30.0 02:SW_2         177.00     3.149 No_date   28:30   22.94 n/a       .000
01047>                           +   30.0 02:SM_DR        1122.00     8.043 No_date   31:30   25.59 n/a       .000
01048>                           +   30.0 02:MD_DR        2737.00    17.548 No_date   31:30   22.44 n/a       .000
01049>                       SUM=    30.0 01:S_N2        52483.00    66.292 No_date   33:00   18.28 n/a       .000
01050> R0005:C00065-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01051>      SAVE HYD                 30.0 01:S_N2        52483.00    66.292 No_date   33:00   18.28 n/a       .000
01052>          fname: H_SN2
01053>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
01054> #
01055> # Sum of hydrographs from Node 2 routed to Node 1
01056> # Section 10
01057> #
01058> R0005:C00066-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01059>      ROUTE CHANNEL     ->     30.0 02:S_N2        52483.00    66.292 No_date   33:00   18.28 n/a       .000
01060>        [RDT=30.00] out<-      30.0 01:N1          52483.00    59.697 No_date   37:00   18.28 n/a       .000
01061>        [L/S/n=10046./ .050/ .040]
01062>        [Vmx= .861: Dmx= 3.201]
01063> #
01064> # Addition of Subwatershed 1 to Node 1
01065> #
01066> R0005:C00067-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01067>      ADD HYD                  30.0 02:N1          52483.00    59.697 No_date   37:00   18.28 n/a       .000
01068>                           +   30.0 02:SW_1        3176.00    19.206 No_date   32:00   23.45 n/a       .000
01069>                       SUM=    30.0 01:N1          55659.00    72.079 No_date   35:00   18.58 n/a       .000
01070> R0005:C00068-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01071>      SAVE HYD                 30.0 01:N1          55659.00    72.079 No_date   35:00   18.58 n/a       .000
01072>          fname: N1. 0005
01073>          remark: total outflow of Jock River
01074> ##########################################################################
01075>  ** END OF RUN:      9
01076>
01077> **************************************************************************************************
01078>
01079>
01080>
01081>
01082>
01083>  RUN#: COMMAND#
01084> R0010:C00001-------------------------------------------------------------------------------------
01085>      START
01086>        [TZERO=     .00 hrs on          0]
01087>        [METOUT=    2    (1=imperial, 2=metric output)]
01088>        [NSTORM=    1 ]
01089>        [NRUN=  0010 ]
01090> #*************************************************************************
01091> #  SWMHYMO Ver: 5.02/Jan 2001 <BETA> / INPUT DATA FILE
01092> #*************************************************************************
01093> #  Project Name: [Jock River]      Project Number: [411-02]
01094> #  Date        : 06-06-2003
01095> #  Modeller    : [JoF]
01096> #  Company     : JFSAinc.
01097> #  License #   :  2549237
01098> #*************************************************************************
01099> # CALIBRATION OF SUMMER MODEL PARAMETERS
01100> # USING CONTINUOUS SIMULATIONS
01101> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
01102> # Use data collected from May 1st to July 14, 2003
01103> # ---------------------------------------------------------------------------
01104> R0010:C00002-------------------------------------------------------------------------------------
01105>      READ STORM
01106>        Filename = storm 001
01107>        Comment  = Pluie SCS de 24 hres 1:10 ans pour Ottawa CDA
01108>        [SDT=10.00: SDDR=  24.00: PTOT=  64.69]
01109> R0010:C00003-------------------------------------------------------------------------------------
01110>      MODIFY STORM
01111>        [RFACT=  1.00: TSHIFT= 960.00 min]
01112>        [SDT=10.00: SDDR=  40.00: PTOT=  64.69]
01113> R0010:C00004-------------------------------------------------------------------------------------
01114>      COMPUTE API
01115>        [APIini= 50.00:  APIkdy= .8500:  APIkdt= .9989]
01116>        [APImax= 97.81:  APIavg= 62.29:  APImin= 44.87]
01117> #
01118> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
01119> # of 1.32
01120> R0010:C00005-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
01121>      CONTINUOUS NASHYD        30.0 01:JR_HW        3680.00    11.582 No_date   36:30   20.20 .312      .000
01122>        [CN= 64.0: N= 3.00: Tp= 7.13]
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01123>        [ IaREC= 4.00: SMN= 57.05: SMX= 380.32: SK= .010]
01124>        [ InterEventTime= 12.00]
01125> #
01126> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01127> # of 1.32
01128> R0010: C00006------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01129>      CONTINUOUS NASHYD     30.0 01: SW_13          971.00     4.293 No_date   32:30   18.81 .291     .000
01130>        [ CN= 61.0: N= 3.00: Tp= 3.76]
01131>        [ IaREC= 4.00: SMN= 64.50: SMX= 430.01: SK= .010]
01132>        [ InterEventTime= 12.00]
01133> #
01134> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01135> # of 1.80
01136> R0010: C00007------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01137>      CONTINUOUS NASHYD     30.0 01: JR_GWM        3074.00     5.604 No_date   39:30   16.19 .250     .000
01138>        [ CN= 55.0: N= 3.00: Tp=11.33]
01139>        [ IaREC= 4.00: SMN= 83.24: SMX= 554.96: SK= .010]
01140>        [ InterEventTime= 12.00]
01141> R0010: C00008------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01142>      CONTINUOUS NASHYD     30.0 01: JR_ASH        1781.00    10.659 No_date   32:30   24.78 .383     .000
01143>        [ CN= 72.0: N= 3.00: Tp= 3.91]
01144>        [ IaREC= 4.00: SMN= 39.75: SMX= 264.99: SK= .010]
01145>        [ InterEventTime= 12.00]
01146> R0010: C00009------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01147>      CONTINUOUS NASHYD     30.0 01: SW_11          500.00     5.516 No_date   29:00   21.17 .327     .000
01148>        [ CN= 66.0: N= 3.00: Tp= 1.24]
01149>        [ IaREC= 4.00: SMN= 52.62: SMX= 350.79: SK= .010]
01150>        [ InterEventTime= 12.00]
01151> #
01152> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01153> # of 1.80
01154> R0010: C00010------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01155>      CONTINUOUS NASHYD     30.0 01: NN_CK         1917.00     7.737 No_date   34:00   21.17 .327     .000
01156>        [ CN= 66.0: N= 3.00: Tp= 5.29]
01157>        [ IaREC= 4.00: SMN= 52.62: SMX= 350.79: SK= .010]
01158>        [ InterEventTime= 12.00]
01159> #
01160> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01161> # of 1.52
01162> R0010: C00011------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01163>      CONTINUOUS NASHYD     30.0 01: SW_10         5666.00    20.651 No_date   37:30   24.78 .383     .000
01164>        [ CN= 72.0: N= 3.00: Tp= 8.00]
01165>        [ IaREC= 4.00: SMN= 39.75: SMX= 264.99: SK= .010]
01166>        [ InterEventTime= 12.00]
01167> #
01168> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01169> # of 1.75
01170> R0010: C00012------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01171>      CONTINUOUS NASHYD     30.0 01: KG_CK         8376.00    19.522 No_date   39:30   21.17 .327     .000
01172>        [ CN= 66.0: N= 3.00: Tp=11.66]
01173>        [ IaREC= 4.00: SMN= 52.62: SMX= 350.79: SK= .010]
01174>        [ InterEventTime= 12.00]
01175> #
01176> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01177> # of 1.68
01178> R0010: C00013------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01179>      CONTINUOUS NASHYD     30.0 01: SW_9          1132.00     8.783 No_date   30:30   23.71 .366     .000
01180>        [ CN= 70.0: N= 3.00: Tp= 2.51]
01181>        [ IaREC= 4.00: SMN= 43.07: SMX= 287.10: SK= .010]
01182>        [ InterEventTime= 12.00]
01183> #
01184> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01185> # of 1.82
01186> R0010: C00014------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01187>      CONTINUOUS NASHYD     30.0 01: NC_CK         4464.00     9.718 No_date   39:30   19.27 .298     .000
01188>        [ CN= 62.0: N= 3.00: Tp=11.32]
01189>        [ IaREC= 4.00: SMN= 61.90: SMX= 412.66: SK= .010]
01190>        [ InterEventTime= 12.00]
01191> #
01192> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01193> # of 1.80
01194> R0010: C00015------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01195> *    CONTINUOUS NASHYD     30.0 01: SW_8          131.00     1.610 No_date   28:30   19.73 .305     .000
01196>        [ CN= 63.0: N= 3.00: Tp= .90]
01197>        [ IaREC= 4.00: SMN= 59.42: SMX= 396.11: SK= .010]
01198>        [ InterEventTime= 12.00]
01199> #
01200> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01201> # of 1.65
01202> R0010: C00016------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01203>      CONTINUOUS NASHYD     30.0 01: HB_DR         3854.00    11.473 No_date   38:30   21.17 .327     .000
01204>        [ CN= 66.0: N= 3.00: Tp= 8.42]
01205>        [ IaREC= 4.00: SMN= 52.62: SMX= 350.79: SK= .010]
01206>        [ InterEventTime= 12.00]
01207> #
01208> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01209> # of 1.82
01210> R0010: C00017------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01211>      CONTINUOUS NASHYD     30.0 01: SW_7          3197.00     8.697 No_date   36:00   17.04 .263     .000
01212>        [ CN= 57.0: N= 3.00: Tp= 6.65]
01213>        [ IaREC= 4.00: SMN= 76.32: SMX= 508.81: SK= .010]
01214>        [ InterEventTime= 12.00]
01215> #
01216> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01217> # of 1.75
01218> R0010: C00018------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01219>      CONTINUOUS NASHYD     30.0 01: SW_6          165.00      .804 No_date   33:00   21.66 .335     .000
01220>        [ CN= 67.0: N= 3.00: Tp= 4.18]
01221>        [ IaREC= 4.00: SMN= 50.55: SMX= 336.97: SK= .010]
01222>        [ InterEventTime= 12.00]
01223> #
01224> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01225> # of 1.67
01226> R0010: C00019------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01227>      CONTINUOUS NASHYD     30.0 01: VG_DR         1332.00     5.936 No_date   35:00   24.78 .383     .000
01228>        [ CN= 72.0: N= 3.00: Tp= 5.95]
01229>        [ IaREC= 4.00: SMN= 39.75: SMX= 264.99: SK= .010]
01230>        [ InterEventTime= 12.00]
01231> R0010: C00020------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01232> *    CONTINUOUS NASHYD     30.0 01: SW_5          224.00     5.097 No_date   28:30   28.21 .436     .000
01233>        [ CN= 77.0: N= 3.00: Tp= .75]
01234>        [ IaREC= 4.00: SMN= 31.15: SMX= 207.66: SK= .010]
01235>        [ InterEventTime= 12.00]
01236> #
01237> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01238> # of 1.20
01239> R0010: C00021------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01240>      CONTINUOUS NASHYD     30.0 01: FL_CK         4945.00    28.428 No_date   33:00   25.89 .400     .000
01241>        [ CN= 74.0: N= 3.00: Tp= 4.45]
01242>        [ IaREC= 4.00: SMN= 36.67: SMX= 244.49: SK= .010]
01243>        [ InterEventTime= 12.00]
01244> R0010: C00022------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01245> *    CONTINUOUS NASHYD     30.0 01: SW_5A2         20.00      .569 No_date   28:30   31.34 .484     .000
01246>        [ CN= 81.0: N= 3.00: Tp= .62]
01247>        [ IaREC= 4.00: SMN= 25.21: SMX= 168.09: SK= .010]
01248>        [ InterEventTime= 12.00]
01249> #
01250> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01251> # of 1.61
01252> R0010: C00023------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01253>      CONTINUOUS NASHYD     30.0 01: SW_5A1        1412.00     5.651 No_date   37:30   27.03 .418     .000
01254>        [ CN= 75.0: N= 3.00: Tp= 8.00]
01255>        [ IaREC= 4.00: SMN= 33.81: SMX= 225.43: SK= .010]
01256>        [ InterEventTime= 12.00]
01257> R0010: C00024------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01258>      CONTINUOUS NASHYD     30.0 01: SW_4          585.00     8.289 No_date   29:30   31.34 .484     .000
01259>        [ CN= 81.0: N= 3.00: Tp= 1.75]
01260>        [ IaREC= 4.00: SMN= 25.21: SMX= 168.09: SK= .010]
01261>        [ InterEventTime= 12.00]
01262> R0010: C00025------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01263>      CONTINUOUS NASHYD     30.0 01: LM_CK         1021.00    11.041 No_date   30:30   30.69 .474     .000
01264>        [ CN= 80.0: N= 3.00: Tp= 2.46]
01265>        [ IaREC= 4.00: SMN= 26.32: SMX= 175.50: SK= .010]
01266>        [ InterEventTime= 12.00]
01267> R0010: C00026------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01268> *    CONTINUOUS NASHYD     30.0 01: SW_2          177.00     4.027 No_date   28:30   28.21 .436     .000
01269>        [ CN= 77.0: N= 3.00: Tp= .75]
01270>        [ IaREC= 4.00: SMN= 31.15: SMX= 207.66: SK= .010]
01271>        [ InterEventTime= 12.00]
01272> R0010: C00027------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01273>      CONTINUOUS NASHYD     30.0 01: SM_DR         1122.00    10.121 No_date   31:30   31.34 .484     .000
01274>        [ CN= 81.0: N= 3.00: Tp= 3.25]
01275>        [ IaREC= 4.00: SMN= 25.21: SMX= 168.09: SK= .010]
01276>        [ InterEventTime= 12.00]
01277> R0010: C00028------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01278>      CONTINUOUS NASHYD     30.0 01: MD_DR         2737.00    22.263 No_date   31:30   27.61 .427     .000
01279>        [ CN= 76.0: N= 3.00: Tp= 3.03]
01280>        [ IaREC= 4.00: SMN= 32.46: SMX= 216.39: SK= .010]
01281>        [ InterEventTime= 12.00]
01282> R0010: C00029------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01283>      CONTINUOUS NASHYD     30.0 01: SW_1          3176.00    24.273 No_date   32:00   28.81 .445     .000
01284>        [ CN= 78.0: N= 3.00: Tp= 3.56]
01285>        [ IaREC= 4.00: SMN= 29.88: SMX= 199.22: SK= .010]
01286>        [ InterEventTime= 12.00]
01287> #
01288> # Routing hydrographs
01289> #
01290> # Starting with the addition of Jock River Headwater and Subwatershed 13
01291> #
01292> R0010: C00030------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01293>      ADD HYD               30.0 02: JR_HW         3680.00    11.582 No_date   36:30   20.20 n/a      .000
01294>                        +   30.0 02: SW_13          971.00     4.293 No_date   32:30   18.81 n/a      .000
01295>                      SUM=  30.0 01: S_N13         4651.00    14.791 No_date   35:00   19.91 n/a      .000
01296> #
01297> # Sum of hydrographs from Node 13 routed to Node 13A
01298> # (Approximated cross-section - see cross-section 258)
01299> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
01300> #
01301> R0010: C00031------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01302>      ROUTE CHANNEL    ->    30.0 02: S_N13         4651.00    14.791 No_date   35:00   19.91 n/a      .000
01303>        [ RTD=30.00] out <-   30.0 01: N13A         4651.00    11.868 No_date   39:30   19.91 n/a      .000
01304>        [ L/S/n= 9074./ .022/.040]
01305>        [ Vmx= .505: Dmx= 3.276]
01306> #
01307> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
01308> #
01309> R0010: C00032------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01310>      ADD HYD               30.0 02: N13A          4651.00    11.868 No_date   39:30   19.91 n/a      .000
01311>                        +   30.0 02: JR_GWM        3074.00     5.604 No_date   39:30   16.19 n/a      .000
01312>                      SUM=  30.0 01: SN13A         7725.00    17.472 No_date   39:30   18.43 n/a      .000
01313> #
01314> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
01315> #
01316> R0010: C00033------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01317>      ROUTE RESERVOIR  ->    30.0 02: SN13A         7725.00    17.472 No_date   39:30   18.43 n/a      .000
01318>                       <-    30.0 01: RES_GM        7725.00     3.517 No_date   59:00   18.43 n/a      .000
01319>        [ MxStoUsed=: 8337E+02  m3]
01320> #
01321> R0010: C00034------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01322>      SAVE HYD              30.0 01: RES_GM        7725.00     3.517 No_date   59:00   18.43 n/a      .000
01323>        fname : H_RESGM
01324>        remark: Outflow from Res GM
01325> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
01326> # (Approximated cross-section - see cross-section 258)
01327> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
01328> R0010: C00035------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01329>      ROUTE CHANNEL    ->    30.0 02: RES_GM        7725.00     3.517 No_date   59:00   18.43 n/a      .000
01330>        [ RTD=30.00] out <-   30.0 01: N12          7725.00     3.511 No_date   63:00   18.43 n/a      .000
01331>        [ L/S/n= 5926./ .076/.040]
01332>        [ Vmx= .546: Dmx= 1.498]
01333> #
01334> # Addition of Subwatershed Jock River at Ashton to Node 12
01335> #
01336> R0010: C00036------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01337>      ADD HYD               30.0 02: N12           7725.00     3.511 No_date   63:00   18.43 n/a      .000
01338>                        +   30.0 02: JR_ASH        1781.00    10.659 No_date   32:30   24.78 n/a      .000
01339>                      SUM=  30.0 01: S_N12         9506.00    12.656 No_date   32:30   19.62 n/a      .000
01340> R0010: C00037------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01341>      SAVE HYD              30.0 01: S_N12         9506.00    12.656 No_date   32:30   19.62 n/a      .000
01342>        fname : H_SN12
01343>        remark: flow at S_N12 near Ashton
01344> #
01345> # Sum of hydrographs from Node 12 routed to Node 11
01346> # (Approximated cross-section - see cross-section 258)
01347> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
01348> R0010: C00038------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01349>      ROUTE CHANNEL    ->    30.0 02: S_N12         9506.00    12.656 No_date   32:30   19.62 n/a      .000
01350>        [ RTD=30.00] out <-   30.0 01: N11          9506.00    12.477 No_date   33:00   19.62 n/a      .000
01351>        [ L/S/n=  972./ .051/.040]
01352>        [ Vmx= .665: Dmx= 2.609]
01353> #
01354> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
01355> #
01356> R0010: C00039------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01357>      ROUTE CHANNEL    ->    30.0 02: S_N12         9506.00    12.656 No_date   32:30   19.62 n/a      .000
01358>        [ RTD=30.00] out <-   30.0 01: Dum11         9506.00    12.493 No_date   33:00   19.62 n/a      .000
01359>        [ L/S/n=  972./ .054/.040]
01360>        [ Vmx= .677: Dmx= 2.584]
01361> #
01362> # Addition of Subwatershed 11 and No Name Creek to Node 11
01363> #
01364> R0010: C00040------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01365>      ADD HYD               30.0 02: Dum11         9506.00    12.493 No_date   33:00   19.62 n/a      .000
01366>                        +   30.0 02: SW_11          500.00     5.516 No_date   29:00   21.17 n/a      .000
01367>                        +   30.0 02: NN_CK         1917.00     7.737 No_date   34:00   21.17 n/a      .000
01368>                      SUM=  30.0 01: S_N11         11923.00    21.461 No_date   33:00   19.93 n/a      .000
01369> #
01370> # Sum of hydrographs from Node 11 routed to Node 10
01371> # Section 1
01372> #
01373> R0010: C00041------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01374>      ROUTE CHANNEL    ->    30.0 02: S_N11         11923.00    21.461 No_date   33:00   19.93 n/a      .000
01375>        [ RTD=30.00] out <-   30.0 01: N10          11923.00    14.609 No_date   39:30   19.93 n/a      .000
01376>        [ L/S/n=14028./ .157/.040]
01377>        [ Vmx= .451: Dmx= 1.206]
01378> #
01379> # Addition of Subwatershed 10 to Node 10
01380> #
01381> R0010: C00042------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01382>      ADD HYD               30.0 02: N10           11923.00    14.609 No_date   39:30   19.93 n/a      .000
01383>                        +   30.0 02: SW_10         5666.00    20.651 No_date   37:30   24.78 n/a      .000
01384>                      SUM=  30.0 01: S_N10         17589.00    35.073 No_date   38:30   21.50 n/a      .000
01385> R0010: C00043------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01386>      SAVE HYD              30.0 01: S_N10         17589.00    35.073 No_date   38:30   21.50 n/a      .000
01387>        fname : H_SN10
01388>        remark: flow at S_N10:  N10 + SW_10
01389> # Addition of Kings Creek to S_N10
01390> #
01391> R0010: C00044------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01392>      ADD HYD               30.0 02: S_N10         17589.00    35.073 No_date   38:30   21.50 n/a      .000
01393>                        +   30.0 02: KG_CK         8376.00    19.522 No_date   39:30   21.17 n/a      .000
01394>                      SUM=  30.0 01: S_N10A        25965.00    54.317 No_date   39:30   21.39 n/a      .000
01395> #
01396> # Sum of hydrographs from Node 10 routed to Node 9
01397> # Section 2
01398> #
01399> R0010: C00045------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01400>      ROUTE CHANNEL    ->    30.0 02: S_N10A        25965.00    54.317 No_date   39:30   21.39 n/a      .000
01401>        [ RTD=30.00] out <-   30.0 01: N9           25965.00    52.431 No_date   39:30   21.39 n/a      .000
01402>        [ L/S/n= 3982./ .075/.040]
01403>        [ Vmx= .679: Dmx= 1.676]
01404> #
01405> # Addition of Subwatershed 9 and Nichols Creek to Node 9
01406> #
01407> R0010: C00046------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01408>      ADD HYD               30.0 02: N9            25965.00    52.431 No_date   39:30   21.39 n/a      .000
01409>                        +   30.0 02: SW_9          1132.00     8.783 No_date   30:30   23.71 n/a      .000
01410>                        +   30.0 02: NC_CK         4464.00     9.718 No_date   39:30   19.27 n/a      .000
01411>                      SUM=  30.0 01: S_N9          31561.00    64.367 No_date   39:30   21.17 n/a      .000
01412> #
01413> # Sum of hydrographs from Node 9 routed to Node 8
01414> # Section 3
01415> #
01416> R0010: C00047------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01417>      ROUTE CHANNEL    ->    30.0 02: S_N9          31561.00    64.367 No_date   39:30   21.17 n/a      .000
01418>        [ RTD=30.00] out <-   30.0 01: N8           31561.00    60.135 No_date   40:00   21.17 n/a      .000
01419>        [ L/S/n= 2269./ .088/.045]
01420>        [ Vmx= .364: Dmx= 1.604]
01421> #
01422> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
01423> #
01424> R0010: C00048------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01425>      ADD HYD               30.0 02: N8            31561.00    60.135 No_date   40:00   21.17 n/a      .000
01426>                        +   30.0 02: SW_8          131.00     1.610 No_date   28:30   19.73 n/a      .000
01427>                        +   30.0 02: HB_DR         3854.00    11.473 No_date   38:30   21.17 n/a      .000
01428>                      SUM=  30.0 01: S_N8          35546.00    71.021 No_date   39:30   21.17 n/a      .000
01429> #
01430> # Sum of hydrographs from Node 8 routed to Node 7
01431> # Section 4
01432> #
01433> R0010: C00049------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01434>      ROUTE CHANNEL    ->    30.0 02: S_N8          35546.00    71.021 No_date   39:30   21.17 n/a      .000
01435>        [ RTD=30.00] out <-   30.0 01: N7           35546.00    59.731 No_date   44:30   21.17 n/a      .000
01436>        [ L/S/n= 3750./ .053/.070]
01437>        [ Vmx= .216: Dmx= 1.966]
01438> #
01439> # Addition of Subwatershed 7 to Node 7
01440> #
01441> R0010: C00050------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01442>      ADD HYD               30.0 02: N7            35546.00    59.731 No_date   44:30   21.17 n/a      .000
01443>                        +   30.0 02: SW_7          3197.00     8.697 No_date   36:00   17.04 n/a      .000
01444>                      SUM=  30.0 01: S_N7          38743.00    64.039 No_date   44:00   20.83 n/a      .000
01445> R0010: C00051------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01446>      SAVE HYD              30.0 01: S_N7          38743.00    64.039 No_date   44:00   20.83 n/a      .000
01447>        fname : H_SN7
01448>        remark: flow at S_N7:  N7 + SW_7
01449> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
01450> # Storage area and volumes were estimated from available topo maps.
01451> # Release rate from fen was assumed to be controlled by the downstream
01452> # river cross-section for summer conditions.  It is was assumed that for up to
01453> # 0.75 m of water, the main channel of the river provided the storage.  Above
01454> # this depth, the wetland starts to signigicantly store water.
01455> #
01456> R0010: C00052------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01457>      ROUTE RESERVOIR  ->    30.0 02: S_N7          38743.00    64.039 No_date   44:00   20.83 n/a      .000
01458>                       <-    30.0 01: RES_RF        38743.00    31.370 No_date   60:30   20.83 n/a      .000
01459>        [ MxStoUsed=: 2507E+03  m3]
01460> R0010: C00053------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01461>      SAVE HYD              30.0 01: RES_RF        38743.00    31.370 No_date   60:30   20.83 n/a      .000
01462>        fname : H_ResRF
01463>        remark: outflow of Richmond Fen
01464> #
01465> # Sum of hydrographs from Node 7 routed to Node 6
01466> # Section 5
01467> #
01468> R0010: C00054------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01469>      ROUTE CHANNEL    ->    30.0 02: RES_RF        38743.00    31.370 No_date   60:30   20.83 n/a      .000
01470>        [ RTD=30.00] out <-   30.0 01: N6           38743.00    31.314 No_date   62:00   20.83 n/a      .000
01471>        [ L/S/n= 3056./ .082/.025]
01472>        [ Vmx= .475: Dmx= .953]
01473> #
01474> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
01475> #
01476> R0010: C00055------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01477>      ADD HYD               30.0 02: N6            38743.00    31.314 No_date   62:00   20.83 n/a      .000
01478>                        +   30.0 02: SW_6          165.00      .804 No_date   33:00   21.66 n/a      .000
01479>                        +   30.0 02: VG_DR         1332.00     5.936 No_date   35:00   24.78 n/a      .000
01480>                      SUM=  30.0 01: S_N6          40240.01    31.366 No_date   61:00   20.96 n/a      .000
01481> #
01482> # Sum of hydrographs from Node 6 routed to Node 5
01483> # Section 6
01484> #
01485> R0010: C00056------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01486>      ROUTE CHANNEL    ->    30.0 02: S_N6          40240.01    31.366 No_date   61:00   20.96 n/a      .000
01487>        [ RTD=30.00] out <-   30.0 01: N5           40240.01    31.341 No_date   62:00   20.96 n/a      .000
01488>        [ L/S/n= 1852./ .054/.035]
01489>        [ Vmx= .411: Dmx= 1.064]
01490> #
01491> # Addition of Subwatershed 5 and Flowing Creek to Node 5
01492> #
01493> R0010: C00057------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
01494>      ADD HYD               30.0 02: N5            40240.01    31.341 No_date   62:00   20.96 n/a      .000
01495>                        +   30.0 02: SW_5          224.00     5.097 No_date   28:30   28.21 n/a      .000
01496>                        +   30.0 02: FL_CK         4945.00    28.428 No_date   33:00   25.89 n/a      .000
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01497>                    SUM=    30.0 01: S_N5          45409.01    50.940 No_date   34:30   21.53  n/a      .000
01498> #
01499> # Sum of hydrographs from Node 5 routed to Node 5A
01500> # Section 7
01501> #
01502> R0010: C00058------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01503>      ROUTE CHANNEL   ->     30.0 02: S_N5          45409.01    50.940 No_date   34:30   21.53  n/a      .000
01504>       [RDT=30.00] out<-     30.0 01: N5A           45409.01    50.883 No_date   35:00   21.53  n/a      .000
01505>       [L/S/n=  556./  .090/ .040]
01506>       [Vmx=  .484: Dmx=  1.127]
01507> #
01508> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
01509> #
01510> R0010: C00059------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01511>      ADD HYD                 30.0 02: N5A           46841.01    56.195 No_date   35:00   21.70  n/a      .000
01512>                        +     30.0 02: SW_5A2           20.00      .569 No_date   28:30   31.34  n/a      .000
01513>                        +     30.0 02: SW_5A1         1412.00     5.651 No_date   37:30   27.03  n/a      .000
01514>                    SUM=      30.0 01: S_N5A         46841.01    56.195 No_date   35:00   21.70  n/a      .000
01515> #
01516> # Sum of hydrographs from Node 5A routed to Node 4
01517> # Section 8
01518> #
01519> R0010: C00060------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01520>      ROUTE CHANNEL   ->     30.0 02: S_N5A         46841.01    56.195 No_date   35:00   21.70  n/a      .000
01521>       [RDT=30.00] out<-     30.0 01: N4            46841.01    54.050 No_date   36:30   21.70  n/a      .000
01522>       [L/S/n= 4630./  .043/ .035]
01523>       [Vmx=   .790: Dmx=  3.283]
01524> #
01525> # Addition of Subwatershed 4 and Leamy Creek to Node 4
01526> #
01527> R0010: C00061------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01528>      ADD HYD                 30.0 02: N4            46841.01    54.050 No_date   36:30   21.70  n/a      .000
01529>                        +     30.0 02: SW_4            585.00     8.289 No_date   29:30   31.34  n/a      .000
01530>                        +     30.0 02: LM_CK          1021.00    11.041 No_date   30:30   30.69  n/a      .000
01531>                    SUM=      30.0 01: S_N4          48447.00    59.486 No_date   36:00   22.01  n/a      .000
01532> R0010: C00062------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01533>      SAVE HYD                30.0 01: S_N4          48447.00    59.486 No_date   36:00   22.01  n/a      .000
01534>       fname : S_N4. 0010
01535>       remark: flow at S_N4
01536> #
01537> # Sum of hydrographs from Node 4 routed to Node 2
01538> # Section 9
01539> #
01540> R0010: C00063------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01541>      ROUTE CHANNEL   ->     30.0 02: S_N4          48447.00    59.486 No_date   36:00   22.01  n/a      .000
01542>       [RDT=30.00] out<-     30.0 01: N2            48447.00    59.258 No_date   36:00   22.01  n/a      .000
01543>       [L/S/n= 1667./  .060/ .040]
01544>       [Vmx=   .822: Dmx=  3.316]
01545> #
01546> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
01547> #
01548> R0010: C00064------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01549>      ADD HYD                 30.0 02: N2            48447.00    59.258 No_date   36:00   22.01  n/a      .000
01550>                        +     30.0 02: SW_2            177.00     4.027 No_date   28:30   28.21  n/a      .000
01551>                        +     30.0 02: SM_DR          1122.00    10.121 No_date   31:30   31.34  n/a      .000
01552>                        +     30.0 02: MD_DR          2737.00    22.263 No_date   31:30   27.61  n/a      .000
01553>                    SUM=      30.0 01: S_N2          52483.00    82.076 No_date   33:00   22.52  n/a      .000
01554> R0010: C00065------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01555>      SAVE HYD                30.0 01: S_N2          52483.00    82.076 No_date   33:00   22.52  n/a      .000
01556>       fname : H_SN2
01557>       remark: flow at S_N2 Jock River Gauge at Moodie Dr.
01558> #
01559> # Sum of hydrographs from Node 2 routed to Node 1
01560> # Section 10
01561> #
01562> R0010: C00066------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01563>      ROUTE CHANNEL   ->     30.0 02: S_N2          52483.00    82.076 No_date   33:00   22.52  n/a      .000
01564>       [RDT=30.00] out<-     30.0 01: N1            52483.00    72.984 No_date   36:30   22.52  n/a      .000
01565>       [L/S/n=10046./  .050/ .040]
01566>       [Vmx=   .924: Dmx=  3.539]
01567> #
01568> # Addition of Subwatershed 1 to Node 1
01569> #
01570> R0010: C00067------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01571>      ADD HYD                 30.0 02: N1            52483.00    72.984 No_date   36:30   22.52  n/a      .000
01572>                        +     30.0 02: SW_1           3176.00    24.273 No_date   32:00   28.81  n/a      .000
01573>                    SUM=      30.0 01: N1            55659.00    89.955 No_date   34:30   22.88  n/a      .000
01574> R0010: C00068------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01575>      SAVE HYD                30.0 01: N1            55659.00    89.955 No_date   34:30   22.88  n/a      .000
01576>       fname : N1. 0010
01577>       remark: total outflow of Jock River
01578> ##########################################################################
01579>   ** END OF RUN :    24
01580>
01581> ************************************************************************************************************
01582>
01583>
01584>
01585>
01586>
01587>  RUN#: COMMAND#
01588> R0025: C00001------------------------------------------------------------------------------------------------
01589>      START                   ------------------------------------------------------------
01590>       [TZERO =      .00 hrs on        0]
01591>       [METOUT=    2    (1=imperial, 2=metric output)]
01592>       [NSTORM=    1 ]
01593>       [NRUN   = 0025 ]
01594> #*************************************************************************
01595> #  SWMHYMO Ver: 5.02/ Jan 2001 <BETA> / INPUT DATA FILE
01596> #*************************************************************************
01597> #  Project Name: [Jock River]      Project Number: [411-02]
01598> #  Date        : 06-06-2003
01599> #  Modeller    : [JoF]
01600> #  Company     : JFSAinc.
01601> #  License #   :  2549237
01602> #*************************************************************************
01603> # CALIBRATION OF SUMMER MODEL PARAMETERS
01604> # USING CONTINUOUS SIMULATIONS
01605> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
01606> # Use data collected from May 1st to July 14, 2003
01607> # ------------------------------------------------------------------------------
01608> R0025: C00002------------------------------------------------------------------------------------------------
01609>      READ STORM              ------------------------------------------------------------
01610>       Filename = storm 001
01611>       Comment  = Pluie SCS de 24 hres 1:25 ans pour Ottawa CDA
01612>       [SDT=10.00: SDUR=  24.00: PTOT=  74.39]
01613> R0025: C00003------------------------------------------------------------------------------------------------
01614>      MODIFY STORM            ------------------------------------------------------------
01615>       [REACT=   1.00: TSHIFT= 960.00 min]
01616>       [SDT=10.00: SDUR=  40.00: PTOT=  74.39]
01617> R0025: C00004------------------------------------------------------------------------------------------------
01618>      COMPUTE API             ------------------------------------------------------------
01619>       [APIini= 50.00:  APIkdy= .8500:  APIkdt= .9989]
01620>       [APImax=106.76:  APIavg= 65.09:  APImin= 44.87]
01621> #
01622> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01623> # of 1.32
01624> R0025: C00005------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01625>      CONTINUOUS NASHYD       30.0 01: JR_HW         3680.00    15.104 No_date   36:30   25.77  .346     .000
01626>       [CN= 64.0: N= 3.00:  Tp=  7.13]
01627>       [IaREC= 4.00:  SMN=  57.05:  SMX=380.32:  SK= .010]
01628>       [InterEventTime=  12.00]
01629> #
01630> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01631> # of 1.32
01632> R0025: C00006------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01633>      CONTINUOUS NASHYD       30.0 01: SW_13          971.00     5.679 No_date   32:30   24.00  .323     .000
01634>       [CN= 61.0: N= 3.00:  Tp=  3.76]
01635>       [IaREC= 4.00:  SMN=  64.50:  SMX=430.01:  SK= .010]
01636>       [InterEventTime=  12.00]
01637> #
01638> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01639> # of 1.80
01640> R0025: C00007------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01641>      CONTINUOUS NASHYD       30.0 01: JR_GWM        3074.00     7.216 No_date   39:30   20.63  .277     .000
01642>       [CN= 55.0: N= 3.00:  Tp=11.33]
01643>       [IaREC= 4.00:  SMN=  83.24:  SMX=554.96:  SK= .010]
01644>       [InterEventTime=  12.00]
01645> R0025: C00008------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01646>      CONTINUOUS NASHYD       30.0 01: JR_ASH        1781.00    13.927 No_date   32:30   31.47  .423     .000
01647>       [CN= 72.0: N= 3.00:  Tp=  3.91]
01648>       [IaREC= 4.00:  SMN=  39.75:  SMX=264.99:  SK= .010]
01649>       [InterEventTime=  12.00]
01650> R0025: C00009------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01651>      CONTINUOUS NASHYD       30.0 01: SW_11          500.00     7.356 No_date   29:00   26.99  .363     .000
01652>       [CN= 66.0: N= 3.00:  Tp=  1.24]
01653>       [IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
01654>       [InterEventTime=  12.00]
01655> #
01656> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01657> # of 1.80
01658> R0025: C00010------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01659>      CONTINUOUS NASHYD       30.0 01: NN_CK         1917.00    10.139 No_date   34:00   26.99  .363     .000
01660>       [CN= 66.0: N= 3.00:  Tp=  5.29]
01661>       [IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
01662>       [InterEventTime=  12.00]
01663> #
01664> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01665> # of 1.52
01666> R0025: C00011------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01667>      CONTINUOUS NASHYD       30.0 01: SW_10         5666.00    26.665 No_date   37:30   31.47  .423     .000
01668>       [CN= 72.0: N= 3.00:  Tp=  8.00]
01669>       [IaREC= 4.00:  SMN=  39.75:  SMX=264.99:  SK= .010]
01670>       [InterEventTime=  12.00]
01671> #
01672> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01673> # of 1.75
01674> R0025: C00012------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01675>      CONTINUOUS NASHYD       30.0 01: KG_CK         8376.00    25.107 No_date   39:30   26.99  .363     .000
01676>       [CN= 66.0: N= 3.00:  Tp=11.66]
01677>       [IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
01678>       [InterEventTime=  12.00]
01679> #
01680> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01681> # of 1.68
01682> R0025: C00013------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01683>      CONTINUOUS NASHYD       30.0 01: SW_9          1132.00    11.574 No_date   30:30   30.15  .405     .000
01684>       [CN= 70.0: N= 3.00:  Tp=  2.51]
01685>       [IaREC= 4.00:  SMN=  43.07:  SMX=287.10:  SK= .010]
01686>       [InterEventTime=  12.00]
01687> #
01688> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01689> # of 1.82
01690> R0025: C00014------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01691>      CONTINUOUS NASHYD       30.0 01: NC_CK         4464.00    12.525 No_date   39:30   24.58  .330     .000
01692>       [CN= 62.0: N= 3.00:  Tp=11.32]
01693>       [IaREC= 4.00:  SMN=  61.90:  SMX=412.66:  SK= .010]
01694>       [InterEventTime=  12.00]
01695> #
01696> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01697> # of 1.80
01698> R0025: C00015------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01699> *    CONTINUOUS NASHYD       30.0 01: SW_8          131.00     2.156 No_date   28:30   25.17  .338     .000
01700>       [CN= 63.0: N= 3.00:  Tp=  .90]
01701>       [IaREC= 4.00:  SMN=  59.42:  SMX=396.11:  SK= .010]
01702>       [InterEventTime=  12.00]
01703> #
01704> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01705> # of 1.65
01706> R0025: C00016------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01707>      CONTINUOUS NASHYD       30.0 01: HB_DR         3854.00    14.880 No_date   38:30   26.99  .363     .000
01708>       [CN= 66.0: N= 3.00:  Tp=  8.42]
01709>       [IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
01710>       [InterEventTime=  12.00]
01711> #
01712> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01713> # of 1.82
01714> R0025: C00017------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01715>      CONTINUOUS NASHYD       30.0 01: SW_7          3197.00    11.391 No_date   36:00   21.73  .292     .000
01716>       [CN= 57.0: N= 3.00:  Tp=  6.65]
01717>       [IaREC= 4.00:  SMN=  76.32:  SMX=508.81:  SK= .010]
01718>       [InterEventTime=  12.00]
01719> #
01720> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01721> # of 1.75
01722> R0025: C00018------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01723>      CONTINUOUS NASHYD       30.0 01: SW_6          165.00     1.056 No_date   33:00   27.61  .371     .000
01724>       [CN= 67.0: N= 3.00:  Tp=  4.18]
01725>       [IaREC= 4.00:  SMN=  50.55:  SMX=336.97:  SK= .010]
01726>       [InterEventTime=  12.00]
01727> #
01728> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01729> # of 1.67
01730> R0025: C00019------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01731>      CONTINUOUS NASHYD       30.0 01: VG_DR         1332.00     7.707 No_date   35:00   31.47  .423     .000
01732>       [CN= 72.0: N= 3.00:  Tp=  5.95]
01733>       [IaREC= 4.00:  SMN=  39.75:  SMX=264.99:  SK= .010]
01734>       [InterEventTime=  12.00]
01735> R0025: C00020------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01736> *    CONTINUOUS NASHYD       30.0 01: SW_5          224.00     6.682 No_date   28:30   35.63  .479     .000
01737>       [CN= 77.0: N= 3.00:  Tp=  .75]
01738>       [IaREC= 4.00:  SMN=  31.15:  SMX=207.66:  SK= .010]
01739>       [InterEventTime=  12.00]
01740> #
01741> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01742> # of 1.30
01743> R0025: C00021------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01744>      CONTINUOUS NASHYD       30.0 01: FL_CK         4945.00    36.990 No_date   33:00   32.82  .441     .000
01745>       [CN= 74.0: N= 3.00:  Tp=  4.45]
01746>       [IaREC= 4.00:  SMN=  36.67:  SMX=244.49:  SK= .010]
01747>       [InterEventTime=  12.00]
01748> R0025: C00022------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01749> *    CONTINUOUS NASHYD       30.0 01: SW_5A2          20.00      .739 No_date   28:30   39.33  .529     .000
01750>       [CN= 81.0: N= 3.00:  Tp=  .62]
01751>       [IaREC= 4.00:  SMN=  25.21:  SMX=168.09:  SK= .010]
01752>       [InterEventTime=  12.00]
01753> #
01754> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
01755> # of 1.61
01756> R0025: C00023------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01757>      CONTINUOUS NASHYD       30.0 01: SW_5A1         1412.00     7.263 No_date   37:30   34.21  .460     .000
01758>       [CN= 75.0: N= 3.00:  Tp=  8.00]
01759>       [IaREC= 4.00:  SMN=  33.81:  SMX=225.43:  SK= .010]
01760>       [InterEventTime=  12.00]
01761> R0025: C00024------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01762>      CONTINUOUS NASHYD       30.0 01: SW_4          585.00    10.733 No_date   29:30   39.33  .529     .000
01763>       [CN= 81.0: N= 3.00:  Tp=  1.75]
01764>       [IaREC= 4.00:  SMN=  25.21:  SMX=168.09:  SK= .010]
01765>       [InterEventTime=  12.00]
01766> R0025: C00025------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01767>      CONTINUOUS NASHYD       30.0 01: LM_CK         1021.00    14.279 No_date   30:30   38.57  .519     .000
01768>       [CN= 80.0: N= 3.00:  Tp=  2.46]
01769>       [IaREC= 4.00:  SMN=  26.32:  SMX=175.50:  SK= .010]
01770>       [InterEventTime=  12.00]
01771> R0025: C00026------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01772> *    CONTINUOUS NASHYD       30.0 01: SW_2          177.00     5.280 No_date   28:30   35.63  .479     .000
01773>       [CN= 77.0: N= 3.00:  Tp=  .75]
01774>       [IaREC= 4.00:  SMN=  31.15:  SMX=207.66:  SK= .010]
01775>       [InterEventTime=  12.00]
01776> R0025: C00027------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01777>      CONTINUOUS NASHYD       30.0 01: SM_DR         1122.00    13.030 No_date   31:30   39.33  .529     .000
01778>       [CN= 81.0: N= 3.00:  Tp=  3.25]
01779>       [IaREC= 4.00:  SMN=  25.21:  SMX=168.09:  SK= .010]
01780>       [InterEventTime=  12.00]
01781> R0025: C00028------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01782>      CONTINUOUS NASHYD       30.0 01: MD_DR         2737.00    28.975 No_date   31:00   34.91  .469     .000
01783>       [CN= 76.0: N= 3.00:  Tp=  3.03]
01784>       [IaREC= 4.00:  SMN=  32.46:  SMX=216.39:  SK= .010]
01785>       [InterEventTime=  12.00]
01786> R0025: C00029------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01787>      CONTINUOUS NASHYD       30.0 01: SW_1          3176.00    31.429 No_date   32:00   36.35  .489     .000
01788>       [CN= 78.0: N= 3.00:  Tp=  3.56]
01789>       [IaREC= 4.00:  SMN=  29.88:  SMX=199.22:  SK= .010]
01790>       [InterEventTime=  12.00]
01791> #
01792> # Routing hydrographs
01793> #
01794> # Starting with the addition of Jock River Headwater and Subwatershed 13
01795> #
01796> R0025: C00030------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01797>      ADD HYD                 30.0 02: JR_HW         3680.00    15.104 No_date   36:30   25.77  n/a      .000
01798>                        +     30.0 02: SW_13          971.00     5.679 No_date   32:30   24.00  n/a      .000
01799>                    SUM=      30.0 01: S_N13         4651.00    19.326 No_date   35:00   25.40  n/a      .000
01800> #
01801> # Sum of hydrographs from Node 13 routed to Node 13A
01802> # (Approximated cross-section - see cross-section 258)
01803> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
01804> #
01805> R0025: C00031------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01806>      ROUTE CHANNEL   ->     30.0 02: S_N13         4651.00    19.326 No_date   35:00   25.40  n/a      .000
01807>       [RDT=30.00] out<-     30.0 01: N13A          4651.00    15.622 No_date   39:00   25.40  n/a      .000
01808>       [L/S/n= 9074./  .022/ .040]
01809>       [Vmx=   .545: Dmx=  3.628]
01810> #
01811> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
01812> #
01813> R0025: C00032------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01814>      ADD HYD                 30.0 02: N13A          4651.00    15.622 No_date   39:00   25.40  n/a      .000
01815>                        +     30.0 02: JR_GWM        3074.00     7.216 No_date   39:30   20.63  n/a      .000
01816>                    SUM=      30.0 01: SN13A         7725.00    22.816 No_date   39:30   23.50  n/a      .000
01817> #
01818> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
01819> #
01820> R0025: C00033------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01821>      ROUTE RESERVOIR ->      30.0 02: SN13A         7725.00    22.816 No_date   39:30   23.50  n/a      .000
01822>                        out <=  30.0 01: RES_GM        7725.00     3.669 No_date   61:00   23.50  n/a      .000
01823>       [MuSt ok ed=  .1171E+03  m]
01824> #
01825> R0025: C00034------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01826>      SAVE HYD                30.0 01: RES_GM        7725.00     3.669 No_date   61:00   23.50  n/a      .000
01827>       fname : H_RESGM
01828>       remark: Outflow from Res GM
01829> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
01830> # (Approximated cross-section - see cross-section 258)
01831> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
01832> R0025: C00035------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01833>      ROUTE CHANNEL   ->     30.0 02: RES_GM        7725.00     3.669 No_date   61:00   23.50  n/a      .000
01834>       [RDT=30.00] out<-     30.0 01: N12           7725.00     3.665 No_date   64:00   23.50  n/a      .000
01835>       [L/S/n= 5926./  .076/ .040]
01836>       [Vmx=   .552: Dmx=  1.522]
01837> #
01838> # Addition of Subwatershed Jock River at Ashton to Node 12
01839> #
01840> R0025: C00036------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01841>      ADD HYD                 30.0 02: N12           7725.00     3.665 No_date   64:00   23.50  n/a      .000
01842>                        +     30.0 02: JR_ASH        1781.00    13.927 No_date   32:30   31.47  n/a      .000
01843>                    SUM=      30.0 01: S_N12         9506.00    15.946 No_date   32:30   24.99  n/a      .000
01844> R0025: C00037------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01845>      SAVE HYD                30.0 01: S_N12         9506.00    15.946 No_date   32:30   24.99  n/a      .000
01846>       fname : H_SN12
01847>       remark: flow at S_N12 near Ashton
01848> #
01849> # Sum of hydrographs from Node 12 routed to Node 11
01850> # (Approximated cross-section - see cross-section 258)
01851> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
01852> R0025: C00038------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01853>      ROUTE CHANNEL   ->     30.0 02: S_N12         9506.00    15.946 No_date   32:30   24.99  n/a      .000
01854>       [RDT=30.00] out<-     30.0 01: N11           9506.00    15.700 No_date   33:00   24.99  n/a      .000
01855>       [L/S/n=  972./  .051/ .040]
01856>       [Vmx=   .705: Dmx=  2.858]
01857> #
01858> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
01859> #
01860> R0025: C00039------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01861>      ROUTE CHANNEL   ->     30.0 02: S_N12         9506.00    15.946 No_date   32:30   24.99  n/a      .000
01862>       [RDT=30.00] out<-     30.0 01: Dum11         9506.00    15.719 No_date   33:00   24.99  n/a      .000
01863>       [L/S/n=  972./  .054/ .040]
01864>       [Vmx=   .718: Dmx=  2.831]
01865> #
01866> # Addition of Subwatershed 11 and No Name Creek to Node 11
01867> #
01868> R0025: C00040------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01869>      ADD HYD                 30.0 02: Dum11         9506.00    15.719 No_date   33:00   24.99  n/a      .000
01870>                        +     30.0 02: SW_11          500.00     7.356 No_date   29:00   26.99  n/a      .000
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01871>                        +     30.0 02: NN_CK        1917.00   10.139 No_date   34:00   26.99  n/a     .000
01872>                      SUM=    30.0 01: S_N11       11923.00   27.440 No_date   33:00   25.40  n/a     .000
01873> #
01874> # Sum of hydrographs from Node 11 routed to Node 10
01875> # Section 1
01876> #
01877> R0025: C00041-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01878>       ROUTE CHANNEL    ->     30.0 02: S_N11       11923.00   27.440 No_date   33:00   25.40  n/a     .000
01879>        [ RDT=30.00] out<-     30.0 01: N10         11923.00   17.756 No_date   40:00   25.40  n/a     .000
01880>        [ L/ S/ n=14028. /  .157/ .040]
01881>        [ Vmx=   .463: Dmx=  1.320]
01882> #
01883> # Addition of Subwatershed 10 to Node 10
01884> #
01885> R0025: C00042-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01886>       ADD HYD                 30.0 02: N10         11923.00   17.756 No_date   40:00   25.40  n/a     .000
01887>                        +     30.0 02: SW_10         5666.00   26.665 No_date   37:30   31.47  n/a     .000
01888>                      SUM=    30.0 01: S_N10       17589.00   44.045 No_date   38:30   27.35  n/a     .000
01889> R0025: C00043-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01890>       SAVE HYD                30.0 01: S_N10       17589.00   44.045 No_date   38:30   27.35  n/a     .000
01891>        fname : H_SN10
01892>        remark: flow at S_N10:  N10 + SW_10
01893> # Addition of Kings Creek to S_N10
01894> #
01895> R0025: C00044-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01896>       ADD HYD                 30.0 02: S_N10       17589.00   44.045 No_date   38:30   27.35  n/a     .000
01897>                        +     30.0 02: KG_CK         8376.00   25.107 No_date   39:30   26.99  n/a     .000
01898>                      SUM=    30.0 01: S_N10A      25965.00   68.824 No_date   39:30   27.24  n/a     .000
01899> #
01900> # Sum of hydrographs from Node 10 routed to Node 9
01901> # Section 2
01902> #
01903> R0025: C00045-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01904>       ROUTE CHANNEL    ->     30.0 02: S_N10A      25965.00   68.824 No_date   39:30   27.24  n/a     .000
01905>        [ RDT=30.00] out<-     30.0 01: N9          25965.00   66.905 No_date   39:30   27.24  n/a     .000
01906>        [ L/ S/ n= 3982. /  .075/ .040]
01907>        [ Vmx=   .713: Dmx=  1.864]
01908> #
01909> # Addition of Subwatershed 9 and Nichols Creek to Node 9
01910> #
01911> R0025: C00046-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01912>       ADD HYD                 30.0 02: N9          25965.00   66.905 No_date   39:30   27.24  n/a     .000
01913>                        +     30.0 02: SW_9          1132.00   11.574 No_date   30:30   30.15  n/a     .000
01914>                        +     30.0 02: NC_CK         4464.00   12.525 No_date   39:30   24.58  n/a     .000
01915>                      SUM=    30.0 01: S_N9        31561.00   82.190 No_date   39:30   26.97  n/a     .000
01916> #
01917> # Sum of hydrographs from Node 9 routed to Node 8
01918> # Section 3
01919> #
01920> R0025: C00047-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01921>       ROUTE CHANNEL    ->     30.0 02: S_N9        31561.00   82.190 No_date   39:30   26.97  n/a     .000
01922>        [ RDT=30.00] out<-     30.0 01: N8          31561.00   77.115 No_date   40:00   26.97  n/a     .000
01923>        [ L/ S/ n= 2269. /  .088/ .045]
01924>        [ Vmx=   .362: Dmx=  1.727]
01925> #
01926> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
01927> #
01928> R0025: C00048-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01929>       ADD HYD                 30.0 02: N8          31561.00   77.115 No_date   40:00   26.97  n/a     .000
01930>                        +     30.0 02: SW_8          131.00    2.156 No_date   28:30   25.17  n/a     .000
01931>                        +     30.0 02: HB_DR        3854.00   14.880 No_date   38:30   26.99  n/a     .000
01932>                      SUM=    30.0 01: S_N8        35546.00   91.271 No_date   39:30   26.96  n/a     .000
01933> #
01934> # Sum of hydrographs from Node 8 routed to Node 7
01935> # Section 4
01936> #
01937> R0025: C00049-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01938>       ROUTE CHANNEL    ->     30.0 02: S_N8        35546.00   91.271 No_date   39:30   26.96  n/a     .000
01939>        [ RDT=30.00] out<-     30.0 01: N7          35546.00   78.196 No_date   45:00   26.96  n/a     .000
01940>        [ L/ S/ n= 3750. /  .053/ .070]
01941>        [ Vmx=   .225: Dmx=  2.134]
01942> #
01943> # Addition of Subwatershed 7 to Node 7
01944> #
01945> R0025: C00050-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01946>       ADD HYD                 30.0 02: N7          35546.00   78.196 No_date   45:00   26.96  n/a     .000
01947>                        +     30.0 02: SW_7          3197.00   11.391 No_date   36:00   21.73  n/a     .000
01948>                      SUM=    30.0 01: S_N7        38743.00   84.011 No_date   44:00   26.53  n/a     .000
01949> R0025: C00051-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01950>       SAVE HYD                30.0 01: S_N7        38743.00   84.011 No_date   44:00   26.53  n/a     .000
01951>        fname : H_SN7
01952>        remark: flow at S_N7:  N7 + SW_7
01953> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
01954> # Storage area and volumes were estimated from available topo maps.
01955> # Release rate from fen was assumed to be controlled by the downstream
01956> # river cross-section for summer conditions.  It is was assumed that for up to
01957> # 0.75 m of water, the main channel of the river provided the storage.  Above
01958> # this depth, the wetland starts to significantly store water.
01959> #
01960> R0025: C00052-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01961>       ROUTE RESERVOIR  ->     30.0 02: S_N7        38743.00   84.011 No_date   44:00   26.53  n/a     .000
01962>                       out <=  30.0 01: RES_RF      38743.00   40.725 No_date   60:30   26.53  n/a     .000
01963>        [ MxStok=6.3577E+03   m3 ]
01964> R0025: C00053-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01965>       SAVE HYD                30.0 01: RES_RF      38743.00   40.725 No_date   60:30   26.53  n/a     .000
01966>        fname : H_ResRF
01967>        remark: outflow of Richmond Fen
01968> #
01969> # Sum of hydrographs from Node 7 routed to Node 6
01970> # Section 5
01971> #
01972> R0025: C00054-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01973>       ROUTE CHANNEL    ->     30.0 02: RES_RF      38743.00   40.725 No_date   60:30   26.53  n/a     .000
01974>        [ RDT=30.00] out<-     30.0 01: N6          38743.00   40.549 No_date   61:30   26.53  n/a     .000
01975>        [ L/ S/ n= 3056. /  .082/ .025]
01976>        [ Vmx=   .510: Dmx=  1.101]
01977> #
01978> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
01979> #
01980> R0025: C00055-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01981>       ADD HYD                 30.0 02: N6          38743.00   40.549 No_date   61:30   26.53  n/a     .000
01982>                        +     30.0 02: SW_6          165.00    1.056 No_date   33:00   27.61  n/a     .000
01983>                        +     30.0 02: VG_DR        1332.00    7.707 No_date   35:00   31.47  n/a     .000
01984>                      SUM=    30.0 01: S_N6        40240.01   40.613 No_date   61:30   26.70  n/a     .000
01985> #
01986> # Sum of hydrographs from Node 6 routed to Node 5
01987> # Section 6
01988> #
01989> R0025: C00056-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01990>       ROUTE CHANNEL    ->     30.0 02: S_N6        40240.01   40.613 No_date   61:30   26.70  n/a     .000
01991>        [ RDT=30.00] out<-     30.0 01: N5          40240.01   40.523 No_date   62:30   26.70  n/a     .000
01992>        [ L/ S/ n= 1852. /  .054/ .035]
01993>        [ Vmx=   .440: Dmx=  1.203]
01994> #
01995> # Addition of Subwatershed 5 and Flowing Creek to Node 5
01996> #
01997> R0025: C00057-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
01998>       ADD HYD                 40240.01   40.523 No_date   62:30   26.70  n/a     .000
01999>                        +     30.0 02: SW_5          224.00    6.682 No_date   28:30   35.63  n/a     .000
02000>                        +     30.0 02: FL_CK        4945.00   36.990 No_date   33:00   32.82  n/a     .000
02001>                      SUM=    30.0 01: S_N5        45409.01   61.906 No_date   34:00   27.41  n/a     .000
02002> #
02003> # Sum of hydrographs from Node 5 routed to Node 5A
02004> # Section 7
02005> #
02006> R0025: C00058-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02007>       ROUTE CHANNEL    ->     30.0 02: S_N5        45409.01   61.906 No_date   34:00   27.41  n/a     .000
02008>        [ RDT=30.00] out<-     30.0 01: N5A         45409.01   61.890 No_date   34:30   27.41  n/a     .000
02009>        [ L/ S/ n=  556. /  .090/ .040]
02010>        [ Vmx=   .510: Dmx=  1.217]
02011> #
02012> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
02013> #
02014> R0025: C00059-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02015>       ADD HYD                 30.0 02: N5A         45409.01   61.890 No_date   34:30   27.41  n/a     .000
02016>                        +     30.0 02: SW_5A2          20.00     .739 No_date   28:30   29.31  n/a     .000
02017>                        +     30.0 02: SW_5A1        1412.00    7.263 No_date   37:30   34.21  n/a     .000
02018>                      SUM=    30.0 01: S_N5A       46841.01   68.494 No_date   34:30   27.62  n/a     .000
02019> #
02020> # Sum of hydrographs from Node 5A routed to Node 4
02021> # Section 8
02022> #
02023> R0025: C00060-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02024>       ROUTE CHANNEL    ->     30.0 02: S_N5A       46841.01   68.494 No_date   34:30   27.62  n/a     .000
02025>        [ RDT=30.00] out<-     30.0 01: N4          46841.01   65.794 No_date   36:30   27.62  n/a     .000
02026>        [ L/ S/ n= 4630. /  .043/ .035]
02027>        [ Vmx=   .838: Dmx=  3.516]
02028> #
02029> # Addition of Subwatershed 4 and Leamy Creek to Node 4
02030> #
02031> R0025: C00061-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02032>       ADD HYD                 30.0 02: N4          46841.01   65.794 No_date   36:30   27.62  n/a     .000
02033>                        +     30.0 02: SW_4          585.00   10.733 No_date   29:30   39.33  n/a     .000
02034>                        +     30.0 02: LM_CK        1021.00   14.279 No_date   30:30   38.57  n/a     .000
02035>                      SUM=    30.0 01: S_N4        48447.00   73.162 No_date   35:30   27.99  n/a     .000
02036> R0025: C00062-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02037>       SAVE HYD                30.0 01: S_N4        48447.00   73.162 No_date   35:30   27.99  n/a     .000
02038>        fname : S_N4. 0025
02039>        remark: flow at S_N4
02040> #
02041> # Sum of hydrographs from Node 4 routed to Node 2
02042> # Section 9
02043> #
02044> R0025: C00063-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02045>       ROUTE CHANNEL    ->     30.0 02: S_N4        48447.00   73.162 No_date   35:30   27.99  n/a     .000
02046>        [ RDT=30.00] out<-     30.0 01: N2          48447.00   72.927 No_date   35:30   27.99  n/a     .000
02047>        [ L/ S/ n= 1667. /  .060/ .040]
02048>        [ Vmx=   .871: Dmx=  3.558]
02049> #
02050> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
02051> #
02052> R0025: C00064-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02053>       ADD HYD                 30.0 02: N2          48447.00   72.927 No_date   35:30   27.99  n/a     .000
02054>                        +     30.0 02: SW_2            177.00    5.280 No_date   28:30   35.63  n/a     .000
02055>                        +     30.0 02: SM_DR          1122.00   13.030 No_date   31:30   39.33  n/a     .000
02056>                        +     30.0 02: MD_DR          2737.00   28.975 No_date   31:00   34.91  n/a     .000
02057>                      SUM=    30.0 01: S_N2        52483.00   104.643 No_date   33:00   28.62  n/a     .000
02058> R0025: C00065-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02059>       SAVE HYD                30.0 01: S_N2        52483.00   104.643 No_date   33:00   28.62  n/a     .000
02060>        fname : H_SN2
02061>        remark: flow at S_N2 Jock River Gauge at Moodie Dr.
02062> #
02063> # Sum of hydrographs from Node 2 routed to Node 1
02064> # Section 10
02065> #
02066> R0025: C00066-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02067>       ROUTE CHANNEL    ->     30.0 02: S_N2        52483.00   104.643 No_date   33:00   28.62  n/a     .000
02068>        [ RDT=30.00] out<-     30.0 01: N1          52483.00    92.450 No_date   36:00   28.62  n/a     .000
02069>        [ L/ S/ n=10046. /  .050/ .040]
02070>        [ Vmx=   .998: Dmx=  3.955]
02071> #
02072> # Addition of Subwatershed 1 to Node 1
02073> #
02074> R0025: C00067-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02075>       ADD HYD                 30.0 02: N1          52483.00    92.450 No_date   36:00   28.62  n/a     .000
02076>                        +     30.0 02: SW_1         3176.00    31.429 No_date   32:00   36.35  n/a     .000
02077>                      SUM=    30.0 01: N1          55659.00   115.838 No_date   34:30   29.06  n/a     .000
02078> R0025: C00068-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02079>       SAVE HYD                30.0 01: N1          55659.00   115.838 No_date   34:30   29.06  n/a     .000
02080>        fname : N1. 0025
02081>        remark: total outflow of Jock River
02082> ################################################################################
02083>    ** END OF RUN :    49
02084>
02085> ********************************************************************************************************************
02086>
02087>
02088>
02089>
02090>
02091>  RUN#: COMMAND#
02092> R0050: C00001-----------------------------------------------------------------------------------------------------
02093>       START
02094>        [TZERO =     .00 hrs on         0]
02095>        [METOUT=    2    (1=imperial, 2=metric output)]
02096>        [NSTORM=    1 ]
02097>        [NRUN  = 0050 ]
02098> #*************************************************************************
02099> #  SWMHYMO Ver: 5.02/Jan 2001 <BETA> / INPUT DATA FILE
02100> #*************************************************************************
02101> #  Project Name: [Jock River]      Project Number: [411-02]
02102> #  Date        : 06-06-2003
02103> #  Modeller    : [JoF]
02104> #  Company     : JFSAinc.
02105> #  License #   :  2549237
02106> #*************************************************************************
02107> # CALIBRATION OF SUMMER MODEL PARAMETERS
02108> # USING MULTIPLE SIMULATIONS
02109> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
02110> # Use data collected from May 1st to July 14, 2003
02111> # ---------------------------------------------------------
02112> R0050: C00002-----------------------------------------------------------------------------------------------------
02113>       READ STORM
02114>        Filename = storm_001
02115>        Comment  = Pluie SCS de 24 hres 1:50 ans pour Ottawa CDA
02116>        [ SDT=10.00: SDUR=   24.00: PTOT=   81.51]
02117> R0050: C00003-----------------------------------------------------------------------------------------------------
02118>       MODIFY STORM
02119>        [ REFACT=   1.00: TSHIFT= 960.00 min]
02120>        [ SDT=10.00: SDUR=   40.00: PTOT=   81.51]
02121> R0050: C00004-----------------------------------------------------------------------------------------------------
02122>       COMPUTE API
02123>        [ API ini = 50.00:  API kdy= .8500:  API kdt= .9989]
02124>        [ API mx=113.33:  API avg= 67.14:  API min= 44.87]
02125> #
02126> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02127> # of 1.32
02128> R0050: C00005-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02129>       CONTINUOUS NASHYD       30.0 01: JR_HW        3680.00   17.963 No_date   36:30   30.30 .372      .000
02130>        [ CN= 64.0:  N= 3.00:  Tp= 7.13]
02131>        [ IaREC= 4.00:  SMN=  57.05:  SMX=380.32:  SK= .010]
02132>        [ InterEventTime=  12.00]
02133> #
02134> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02135> # of 1.32
02136> R0050: C00006-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02137>       CONTINUOUS NASHYD       30.0 01: SW_13         971.00    6.816 No_date   32:30   28.25 .347      .000
02138>        [ CN= 61.0:  N= 3.00:  Tp= 3.76]
02139>        [ IaREC= 4.00:  SMN=  64.50:  SMX=430.01:  SK= .010]
02140>        [ InterEventTime=  12.00]
02141> #
02142> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02143> # of 1.80
02144> R0050: C00007-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02145>       CONTINUOUS NASHYD       30.0 01: JR_GWM       3074.00    8.540 No_date   39:30   24.29 .298      .000
02146>        [ CN= 55.0:  N= 3.00:  Tp=11.33]
02147>        [ IaREC= 4.00:  SMN=  83.24:  SMX=554.96:  SK= .010]
02148>        [ InterEventTime=  12.00]
02149> R0050: C00008-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02150>       CONTINUOUS NASHYD       30.0 01: JR_ASH       1781.00   16.547 No_date   32:30   36.82 .452      .000
02151>        [ CN= 72.0:  N= 3.00:  Tp= 3.91]
02152>        [ IaREC= 4.00:  SMN=  39.75:  SMX=264.99:  SK= .010]
02153>        [ InterEventTime=  12.00]
02154> R0050: C00009-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02155>       CONTINUOUS NASHYD       30.0 01: SW_11         500.00    8.861 No_date   29:00   31.71 .389      .000
02156>        [ CN= 66.0:  N= 3.00:  Tp= 1.24]
02157>        [ IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
02158>        [ InterEventTime=  12.00]
02159> #
02160> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02161> # of 1.80
02162> R0050: C00010-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02163>       CONTINUOUS NASHYD       30.0 01: NN_CK        1917.00   12.088 No_date   34:00   31.71 .389      .000
02164>        [ CN= 66.0:  N= 3.00:  Tp= 5.29]
02165>        [ IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
02166>        [ InterEventTime=  12.00]
02167> #
02168> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02169> # of 1.52
02170> R0050: C00011-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02171>       CONTINUOUS NASHYD       30.0 01: SW_10         5666.00   31.459 No_date   37:30   36.82 .452      .000
02172>        [ CN= 72.0:  N= 3.00:  Tp= 8.00]
02173>        [ IaREC= 4.00:  SMN=  39.75:  SMX=264.99:  SK= .010]
02174>        [ InterEventTime=  12.00]
02175> #
02176> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02177> # of 1.75
02178> R0050: C00012-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02179>       CONTINUOUS NASHYD       30.0 01: KG_CK        8376.00   29.616 No_date   39:30   31.71 .389      .000
02180>        [ CN= 66.0:  N= 3.00:  Tp=11.66]
02181>        [ IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
02182>        [ InterEventTime=  12.00]
02183> #
02184> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02185> # of 1.68
02186> R0050: C00013-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02187>       CONTINUOUS NASHYD       30.0 01: SW_9          1132.00   13.828 No_date   30:30   35.33 .433      .000
02188>        [ CN= 70.0:  N= 3.00:  Tp= 2.51]
02189>        [ IaREC= 4.00:  SMN=  43.07:  SMX=287.10:  SK= .010]
02190>        [ InterEventTime=  12.00]
02191> #
02192> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02193> # of 1.82
02194> R0050: C00014-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02195>       CONTINUOUS NASHYD       30.0 01: NC_CK        4464.00   14.806 No_date   39:30   28.93 .355      .000
02196>        [ CN= 62.0:  N= 3.00:  Tp=11.32]
02197>        [ IaREC= 4.00:  SMN=  61.90:  SMX=412.66:  SK= .010]
02198>        [ InterEventTime=  12.00]
02199> #
02200> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02201> # of 1.80
02202> R0050: C00015-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02203> *     CONTINUOUS NASHYD       30.0 01: SW_8          131.00    2.605 No_date   28:30   29.61 .363      .000
02204>        [ CN= 63.0:  N= 3.00:  Tp=  .90]
02205>        [ IaREC= 4.00:  SMN=  59.42:  SMX=396.11:  SK= .010]
02206>        [ InterEventTime=  12.00]
02207> #
02208> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02209> # of 1.65
02210> R0050: C00016-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02211>       CONTINUOUS NASHYD       30.0 01: HB_DR        3854.00   17.631 No_date   38:30   31.71 .389      .000
02212>        [ CN= 66.0:  N= 3.00:  Tp= 8.42]
02213>        [ IaREC= 4.00:  SMN=  52.62:  SMX=350.79:  SK= .010]
02214>        [ InterEventTime=  12.00]
02215> #
02216> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02217> # of 1.82
02218> R0050: C00017-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02219>       CONTINUOUS NASHYD       30.0 01: SW_7          3197.00   13.606 No_date   36:00   25.59 .314      .000
02220>        [ CN= 57.0:  N= 3.00:  Tp= 6.65]
02221>        [ IaREC= 4.00:  SMN=  76.32:  SMX=508.81:  SK= .010]
02222>        [ InterEventTime=  12.00]
02223> #
02224> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02225> # of 1.75
02226> R0050: C00018-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02227>       CONTINUOUS NASHYD       30.0 01: SW_6          165.00    1.261 No_date   33:00   32.42 .398      .000
02228>        [ CN= 67.0:  N= 3.00:  Tp= 4.18]
02229>        [ IaREC= 4.00:  SMN=  50.55:  SMX=336.97:  SK= .010]
02230>        [ InterEventTime=  12.00]
02231> #
02232> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2-4)
02233> # of 1.67
02234> R0050: C00019-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02235>       CONTINUOUS NASHYD       30.0 01: VG_DR        1332.00    9.122 No_date   35:00   36.82 .452      .000
02236>        [ CN= 72.0:  N= 3.00:  Tp= 5.95]
02237>        [ IaREC= 4.00:  SMN=  39.75:  SMX=264.99:  SK= .010]
02238>        [ InterEventTime=  12.00]
02239> R0050: C00020-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02240> *     CONTINUOUS NASHYD       30.0 01: SW_5          224.00    7.947 No_date   28:30   41.48 .509      .000
02241>        [ CN= 77.0:  N= 3.00:  Tp=  .75]
02242>        [ IaREC= 4.00:  SMN=  31.15:  SMX=207.66:  SK= .010]
02243>        [ InterEventTime=  12.00]
02244> #
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02245> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02246> # of 1.20
02247> R0050: C00021-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02248>       CONTINUOUS NASHYD     30.0 01: FL_CK        4945.00    43.824 No_date   33:00   38.35 .470     .000
02249>         [CN= 74.0: N= 3.00: Tp= 4.45]
02250>         [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
02251>         [InterEventTime= 12.00]
02252> R0050: C00022-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02253> *     CONTINUOUS NASHYD     30.0 01: SW_SA2         20.00      .873 No_date   28:30   45.57 .559     .000
02254>         [CN= 81.0: N= 3.00: Tp=  .62]
02255>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
02256>         [InterEventTime= 12.00]
02257> #
02258> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02259> # of 1.61
02260> R0050: C00023-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02261>       CONTINUOUS NASHYD     30.0 01: SW_SA1       1412.00     8.537 No_date   37:30   39.90 .490     .000
02262>         [CN= 75.0: N= 3.00: Tp= 8.00]
02263>         [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
02264>         [InterEventTime= 12.00]
02265> R0050: C00024-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02266>       CONTINUOUS NASHYD     30.0 01: SW_4         585.00    12.656 No_date   29:30   45.57 .559     .000
02267>         [CN= 81.0: N= 3.00: Tp= 1.75]
02268>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
02269>         [InterEventTime= 12.00]
02270> R0050: C00025-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02271>       CONTINUOUS NASHYD     30.0 01: LM_CK        1021.00    16.828 No_date   30:30   44.74 .549     .000
02272>         [CN= 80.0: N= 3.00: Tp= 2.46]
02273>         [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
02274>         [InterEventTime= 12.00]
02275> R0050: C00026-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02276> *     CONTINUOUS NASHYD     30.0 01: SW_2         177.00     6.279 No_date   28:30   41.48 .509     .000
02277>         [CN= 77.0: N= 3.00: Tp=  .75]
02278>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
02279>         [InterEventTime= 12.00]
02280> R0050: C00027-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02281>       CONTINUOUS NASHYD     30.0 01: SM_DR        1122.00    15.311 No_date   31:30   45.57 .559     .000
02282>         [CN= 81.0: N= 3.00: Tp= 3.25]
02283>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
02284>         [InterEventTime= 12.00]
02285> R0050: C00028-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02286>       CONTINUOUS NASHYD     30.0 01: MD_DR        2737.00    34.329 No_date   31:00   40.69 .499     .000
02287>         [CN= 76.0: N= 3.00: Tp= 3.03]
02288>         [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
02289>         [InterEventTime= 12.00]
02290> R0050: C00029-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02291>       CONTINUOUS NASHYD     30.0 01: SW_1         3176.00    37.086 No_date   32:00   42.28 .519     .000
02292>         [CN= 78.0: N= 3.00: Tp= 3.56]
02293>         [IaREC= 4.00: SMN= 29.88: SMX=199.22: SK= .010]
02294>         [InterEventTime= 12.00]
02295> #
02296> # Routing hydrographs
02297> #
02298> # Starting with the addition of Jock River Headwater and Subwatershed 13
02299> #
02300> R0050: C00030-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02301>       ADD HYD               30.0 02: JR_HW        3680.00    17.963 No_date   36:30   30.30  n/a     .000
02302>                       +     30.0 02: SW_13         971.00     6.816 No_date   32:30   28.25  n/a     .000
02303>                     SUM=    30.0 01: S_N13        4651.00    23.017 No_date   35:00   29.87  n/a     .000
02304> #
02305> # Sum of hydrographs from Node 13 routed to Node 13A
02306> # (Approximated cross-section - see cross-section 258)
02307> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02308> #
02309> R0050: C00031-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02310>       ROUTE CHANNEL    ->     30.0 02: S_N13        4651.00    23.017 No_date   35:00   29.87  n/a     .000
02311>         [RDT=30.00] out<-     30.0 01: N13A         4651.00    18.758 No_date   38:30   29.87  n/a     .000
02312>         [L/S/n= 9074./ .022/.040]
02313>         [Vmx= .571: Dmx= 3.883]
02314> #
02315> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
02316> #
02317> R0050: C00032-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02318>       ADD HYD               30.0 02: N13A         4651.00    18.758 No_date   38:30   29.87  n/a     .000
02319>                       +     30.0 02: JR_GWM       3074.00     8.540 No_date   39:30   24.29  n/a     .000
02320>                     SUM=    30.0 01: SN13A        7725.00    27.242 No_date   39:30   27.65  n/a     .000
02321> #
02322> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
02323> #
02324> R0050: C00033-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02325>       ROUTE RESERVOIR ->     30.0 02: SN13A        7725.00    27.242 No_date   39:30   27.65  n/a     .000
02326>                     out <=   30.0 01: RES_GM       7725.00     3.797 No_date   62:30   27.65  n/a     .000
02327>         [MaxStorage=.1456E+03  m3]
02328> #
02329> R0050: C00034-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02330>       SAVE HYD              30.0 01: RES_GM       7725.00     3.797 No_date   62:30   27.65  n/a     .000
02331>         fname : H_RESGM
02332>         remark: Out flow from Res GM
02333> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
02334> # (Approximated cross-section - see cross-section 258)
02335> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02336> R0050: C00035-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02337>       ROUTE CHANNEL    ->     30.0 02: RES_GM       7725.00     3.797 No_date   62:30   27.65  n/a     .000
02338>         [RDT=30.00] out<-     30.0 01: N12          7725.00     3.794 No_date   65:00   27.65  n/a     .000
02339>         [L/S/n= 5926./ .076/.040]
02340>         [Vmx= .556: Dmx= 1.539]
02341> #
02342> # Addition of Subwatershed Jock River at Ashton to Node 12
02343> #
02344> R0050: C00036-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02345>       ADD HYD               30.0 02: N12          7725.00     3.794 No_date   65:00   27.65  n/a     .000
02346>                       +     30.0 02: JR_ASH       1781.00    16.547 No_date   32:30   36.82  n/a     .000
02347>                     SUM=    30.0 01: S_N12        9506.00    18.583 No_date   32:30   29.37  n/a     .000
02348> R0050: C00037-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02349>       SAVE HYD              30.0 01: S_N12        9506.00    18.583 No_date   32:30   29.37  n/a     .000
02350>         fname : H_SN12
02351>         remark: flow at S_N12 near Ashton
02352> #
02353> # Sum of hydrographs from Node 12 routed to Node 11
02354> # (Approximation cross-section - see cross-section 258)
02355> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02356> R0050: C00038-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02357>       ROUTE CHANNEL    ->     30.0 02: S_N12        9506.00    18.583 No_date   32:30   29.37  n/a     .000
02358>         [RDT=30.00] out<-     30.0 01: N11          9506.00    18.279 No_date   32:30   29.37  n/a     .000
02359>         [L/S/n= 972./ .051/.040]
02360>         [Vmx= .734: Dmx= 3.040]
02361> #
02362> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
02363> #
02364> R0050: C00039-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02365>       ROUTE CHANNEL    ->     30.0 02: S_N12        9506.00    18.583 No_date   32:30   29.37  n/a     .000
02366>         [RDT=30.00] out<-     30.0 01: Dam11        9506.00    18.314 No_date   32:30   29.37  n/a     .000
02367>         [L/S/n= 972./ .054/.040]
02368>         [Vmx= .748: Dmx= 3.010]
02369> #
02370> # Addition of Subwatershed 11 and No Name Creek to Node 11
02371> #
02372> R0050: C00040-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02373>       ADD HYD               30.0 02: Dam11        9506.00    18.314 No_date   32:30   29.37  n/a     .000
02374>                       +     30.0 02: SW_11         500.00     8.861 No_date   29:00   31.71  n/a     .000
02375>                       +     30.0 02: NN_CK        1917.00    12.088 No_date   34:00   31.71  n/a     .000
02376>                     SUM=    30.0 01: S_N11       11923.00    32.241 No_date   33:00   29.84  n/a     .000
02377> #
02378> # Sum of hydrographs from Node 11 routed to Node 10
02379> # Section 1
02380> #
02381> R0050: C00041-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02382>       ROUTE CHANNEL    ->     30.0 02: S_N11       11923.00    32.241 No_date   33:00   29.84  n/a     .000
02383>         [RDT=30.00] out<-     30.0 01: N10          11923.00    20.165 No_date   40:00   29.84  n/a     .000
02384>         [L/S/n=14028./ .157/.040]
02385>         [Vmx= .473: Dmx= 1.413]
02386> #
02387> # Addition of Subwatershed 10 to Node 10
02388> #
02389> R0050: C00042-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02390>       ADD HYD               30.0 02: N10          11923.00    20.165 No_date   40:00   29.84  n/a     .000
02391>                       +     30.0 02: SW_10         5666.00    31.459 No_date   37:30   36.82  n/a     .000
02392>                     SUM=    30.0 01: S_N10       17589.00    51.443 No_date   38:00   32.09  n/a     .000
02393> R0050: C00043-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02394>       SAVE HYD              30.0 01: S_N10        17589.00    51.443 No_date   38:00   32.09  n/a     .000
02395>         fname : H_SN10
02396>         remark: flow at S_N10:  N10 + SW_10
02397> # Addition of Kings Creek to S_N10
02398> #
02399> R0050: C00044-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02400>       ADD HYD               30.0 02: S_N10        17589.00    51.443 No_date   38:00   32.09  n/a     .000
02401>                       +     30.0 02: KG_CK         8376.00    29.616 No_date   39:30   31.71  n/a     .000
02402>                     SUM=    30.0 01: S_N10A       25965.00    80.385 No_date   39:30   31.97  n/a     .000
02403> #
02404> # Sum of hydrographs from Node 10 routed to Node 9
02405> # Section 2
02406> #
02407> R0050: C00045-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02408>       ROUTE CHANNEL    ->     30.0 02: S_N10A       25965.00    80.385 No_date   39:30   31.97  n/a     .000
02409>         [RDT=30.00] out<-     30.0 01: N9           25965.00    78.483 No_date   39:30   31.97  n/a     .000
02410>         [L/S/n= 3982./ .075/.040]
02411>         [Vmx= .739: Dmx= 1.990]
02412> #
02413> # Addition of Subwatershed 9 and Nichols Creek to Node 9
02414> #
02415> R0050: C00046-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02416>       ADD HYD               30.0 02: N9           25965.00    78.483 No_date   39:30   31.97  n/a     .000
02417>                       +     30.0 02: SW_9          1132.00    13.828 No_date   30:30   35.33  n/a     .000
02418>                       +     30.0 02: NC_CK         4464.00    14.806 No_date   39:30   28.93  n/a     .000
02419>                     SUM=    30.0 01: S_N9         31561.00    96.483 No_date   39:30   31.66  n/a     .000
02420> #
02421> # Sum of hydrographs from Node 9 routed to Node 8
02422> # Section 3
02423> #
02424> R0050: C00047-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02425>       ROUTE CHANNEL    ->     30.0 02: S_N9         31561.00    96.483 No_date   39:30   31.66  n/a     .000
02426>         [RDT=30.00] out<-     30.0 01: N8           31561.00    91.152 No_date   40:00   31.66  n/a     .000
02427>         [L/S/n= 2269./ .088/.045]
02428>         [Vmx= .367: Dmx= 1.816]
02429> #
02430> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
02431> #
02432> R0050: C00048-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02433>       ADD HYD               30.0 02: N8           31561.00    91.152 No_date   40:00   31.66  n/a     .000
02434>                       +     30.0 02: SW_8          131.00     2.605 No_date   28:30   29.61  n/a     .000
02435>                       +     30.0 02: HB_DR        3854.00    17.631 No_date   38:30   31.71  n/a     .000
02436>                     SUM=    30.0 01: S_N8         35546.00   108.049 No_date   39:30   31.66  n/a     .000
02437> #
02438> # Sum of hydrographs from Node 8 routed to Node 7
02439> # Section 4
02440> #
02441> R0050: C00049-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02442>       ROUTE CHANNEL    ->     30.0 02: S_N8         35546.00   108.049 No_date   39:30   31.66  n/a     .000
02443>         [RDT=30.00] out<-     30.0 01: N7           35546.00    92.806 No_date   44:30   31.66  n/a     .000
02444>         [L/S/n= 3750./ .053/.070]
02445>         [Vmx= .230: Dmx= 2.266]
02446> #
02447> # Addition of Subwatershed 7 to Node 7
02448> #
02449> R0050: C00050-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02450>       ADD HYD               30.0 02: N7           35546.00    92.806 No_date   44:30   31.66  n/a     .000
02451>                       +     30.0 02: SW_7          3197.00    13.606 No_date   36:00   25.59  n/a     .000
02452>                     SUM=    30.0 01: S_N7         38743.00   100.010 No_date   43:30   31.16  n/a     .000
02453> R0050: C00051-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02454>       SAVE HYD              30.0 01: S_N7         38743.00   100.010 No_date   43:30   31.16  n/a     .000
02455>         fname : H_SN7
02456>         remark: flow at S_N7:  N7 + SW_7
02457> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
02458> # Storage area and volumes were estimated from available topo maps.
02459> # Release rate from fen was assumed to be controlled by the downstream
02460> # river cross-section for summer conditions.  It is was assumed that for up to
02461> # 0.75 m of water, the main channel of the river provided the storage.  Above
02462> # this depth, the wetland starts to signigicantly store water.
02463> #
02464> R0050: C00052-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02465>       ROUTE RESERVOIR ->     30.0 02: S_N7         38743.00   100.010 No_date   43:30   31.16  n/a     .000
02466>                     out <=   30.0 01: RES_RF       38743.00    50.512 No_date   59:00   31.16  n/a     .000
02467>         [MaxStorage=.4285E+03  m3]
02468> R0050: C00053-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02469>       SAVE HYD              30.0 01: RES_RF       38743.00    50.512 No_date   59:00   31.16  n/a     .000
02470>         fname : H_ResRF
02471>         remark: outflow of Richmond Fen
02472> #
02473> # Sum of hydrographs from Node 7 routed to Node 6
02474> # Section 5
02475> #
02476> R0050: C00054-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02477>       ROUTE CHANNEL    ->     30.0 02: RES_RF       38743.00    50.512 No_date   59:00   31.16  n/a     .000
02478>         [RDT=30.00] out<-     30.0 01: N6           38743.00    50.296 No_date   60:30   31.16  n/a     .000
02479>         [L/S/n= 3056./ .082/.035]
02480>         [Vmx= .534: Dmx= 1.234]
02481> #
02482> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
02483> #
02484> R0050: C00055-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02485>       ADD HYD               30.0 02: N6           38743.00    50.296 No_date   60:30   31.16  n/a     .000
02486>                       +     30.0 02: SW_6          165.00     1.261 No_date   33:00   32.42  n/a     .000
02487>                       +     30.0 02: VG_DR        1332.00     9.122 No_date   35:00   36.82  n/a     .000
02488>                     SUM=    30.0 01: S_N6         40240.01    50.407 No_date   60:30   31.35  n/a     .000
02489> #
02490> # Sum of hydrographs from Node 6 routed to Node 5
02491> # Section 6
02492> #
02493> R0050: C00056-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02494>       ROUTE CHANNEL    ->     30.0 02: S_N6         40240.01    50.407 No_date   60:30   31.35  n/a     .000
02495>         [RDT=30.00] out<-     30.0 01: N5           40240.01    50.300 No_date   61:00   31.35  n/a     .000
02496>         [L/S/n= 1852./ .054/.035]
02497>         [Vmx= .466: Dmx= 1.333]
02498> #
02499> # Addition of Subwatershed 5 and Flowing Creek to Node 5
02500> #
02501> R0050: C00057-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02502>       ADD HYD               30.0 02: N5           40240.01    50.300 No_date   61:00   31.35  n/a     .000
02503>                       +     30.0 02: SW_5          224.00     7.947 No_date   28:30   41.48  n/a     .000
02504>                       +     30.0 02: FL_CK        4945.00    43.824 No_date   33:00   38.35  n/a     .000
02505>                     SUM=    30.0 01: S_N5         45409.01    70.670 No_date   34:00   32.16  n/a     .000
02506> #
02507> # Sum of hydrographs from Node 5 routed to Node 5A
02508> # Section 7
02509> #
02510> R0050: C00058-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02511>       ROUTE CHANNEL    ->     30.0 02: S_N5         45409.01    70.670 No_date   34:00   32.16  n/a     .000
02512>         [RDT=30.00] out<-     30.0 01: N5A          45409.01    70.588 No_date   34:30   32.16  n/a     .000
02513>         [L/S/n=  556./ .090/.040]
02514>         [Vmx= .528: Dmx= 1.284]
02515> #
02516> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
02517> #
02518> R0050: C00059-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02519>       ADD HYD               30.0 02: N5A          45409.01    70.588 No_date   34:30   32.16  n/a     .000
02520>                       +     30.0 02: SW_5A2         20.00      .873 No_date   28:30   45.57  n/a     .000
02521>                       +     30.0 02: SW_5A1       1412.00     8.537 No_date   37:30   39.90  n/a     .000
02522>                     SUM=    30.0 01: S_N5A        46841.01    78.358 No_date   34:30   32.40  n/a     .000
02523> #
02524> # Sum of hydrographs from Node 5A routed to Node 4
02525> # Section 8
02526> #
02527> R0050: C00060-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02528>       ROUTE CHANNEL    ->     30.0 02: S_N5A        46841.01    78.358 No_date   34:30   32.40  n/a     .000
02529>         [RDT=30.00] out<-     30.0 01: N4           46841.01    75.078 No_date   36:00   32.40  n/a     .000
02530>         [L/S/n= 4630./ .043/.035]
02531>         [Vmx= .871: Dmx= 3.687]
02532> #
02533> # Addition of Subwatershed 4 and Leamy Creek to Node 4
02534> #
02535> R0050: C00061-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02536>       ADD HYD               30.0 02: N4           46841.01    75.078 No_date   36:00   32.40  n/a     .000
02537>                       +     30.0 02: SW_4          585.00    12.656 No_date   29:30   45.57  n/a     .000
02538>                       +     30.0 02: LM_CK        1021.00    16.828 No_date   30:30   44.74  n/a     .000
02539>                     SUM=    30.0 01: S_N4         48447.00    84.137 No_date   35:00   32.82  n/a     .000
02540> R0050: C00062-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02541>       SAVE HYD              30.0 01: S_N4         48447.00    84.137 No_date   35:00   32.82  n/a     .000
02542>         fname : S_N4. 0050
02543>         remark: flow at S_N4
02544> #
02545> # Sum of hydrographs from Node 4 routed to Node 2
02546> # Section 9
02547> #
02548> R0050: C00063-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02549>       ROUTE CHANNEL    ->     30.0 02: S_N4         48447.00    84.137 No_date   35:00   32.82  n/a     .000
02550>         [RDT=30.00] out<-     30.0 01: N2           48447.00    83.911 No_date   35:30   32.82  n/a     .000
02551>         [L/S/n= 1667./ .060/.040]
02552>         [Vmx= .907: Dmx= 3.737]
02553> #
02554> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
02555> #
02556> R0050: C00064-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02557>       ADD HYD               30.0 02: N2           48447.00    83.911 No_date   35:30   32.82  n/a     .000
02558>                       +     30.0 02: SW_2          177.00     6.279 No_date   28:30   41.48  n/a     .000
02559>                       +     30.0 02: SM_DR        1122.00    15.311 No_date   31:30   45.57  n/a     .000
02560>                       +     30.0 02: MD_DR        2737.00    34.329 No_date   31:00   40.69  n/a     .000
02561>                     SUM=    30.0 01: S_N2         52483.00   122.469 No_date   33:00   33.53  n/a     .000
02562> R0050: C00065-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02563>       SAVE HYD              30.0 01: S_N2         52483.00   122.469 No_date   33:00   33.53  n/a     .000
02564>         fname : H_SN2
02565>         remark: flow at S_N2 Jock River Gauge at Moodie Dr.
02566> #
02567> # Sum of hydrographs from Node 2 routed to Node 1
02568> # Section 10
02569> #
02570> R0050: C00066-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02571>       ROUTE CHANNEL    ->     30.0 02: S_N2         52483.00   122.469 No_date   33:00   33.53  n/a     .000
02572>         [RDT=30.00] out<-     30.0 01: N1           52483.00   107.946 No_date   35:30   33.53  n/a     .000
02573>         [L/S/n=10046./ .050/.040]
02574>         [Vmx= 1.047: Dmx= 4.256]
02575> #
02576> # Addition of Subwatershed 1 to Node 1
02577> #
02578> R0050: C00067-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02579>       ADD HYD               30.0 02: N1           52483.00   107.946 No_date   35:30   33.53  n/a     .000
02580>                       +     30.0 02: SW_1         3176.00    37.086 No_date   32:00   42.28  n/a     .000
02581>                     SUM=    30.0 01: N1           55659.00   136.459 No_date   34:00   34.03  n/a     .000
02582> R0050: C00068-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
02583>       SAVE HYD              30.0 01: N1           55659.00   136.459 No_date   34:00   34.03  n/a     .000
02584>         fname : N1. 0050
02585>         remark: total outflow of Jock River
02586> ##################################################################################
02587>    ** END OF RUN :   99
02588> *
02589> **********************************************************************************************************
02590>
02591>
02592>
02593>
02594>
02595>  RUN#: COMMAND#
02596> R0100: C00001-----------------------------------------------------------------------------------------------
02597>       START
02598>         [TZERO =     .00 hrs on          0]
02599>         [METOUT=    2     (1=imperial, 2=metric output)]
02600>         [NSTORM=    1  ]
02601>         [NRUN  = 0100 ]
02602> #*****************************************************************************
02603> #  SWMM5D Ver: 5.02/Jan 2001 <BETA> / INPUT DATA FILE
02604> #*****************************************************************************
02605> #  Project Name: [Jock River]      Project Number: [411-02]
02606> #  Date        : 06-06-2003
02607> #  Modeller    : [JoF]
02608> #  Company     : JFSAinc.
02609> #  License #   :  2549237
02610> #*****************************************************************************
02611> # CALIBRATION OF SUMMER MODEL PARAMETERS
02612> # USING CONTINUOUS SIMULATIONS
02613> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
02614> # Use data collected from May 1st to July 14, 2003
02615> # ---------------------------------------------------------------------------
02616> R0100: C00002-----------------------------------------------------------------------------------------------
02617>       READ STORM
02618>         Filename = storm.001
```

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02619>         Comment   = Pluie SCS de 24 hres 1:100 ans pour Ottawa CDA
02620>         [SDT=10.00: SDUR=  24.00: PTOT=  88.57]
02621> R0100: C00003-------------------------------------------------------------------------------
02622>         MODIFY STORM
02623>         [RFACT=  1.00: TSHIFT= 960.00 min]
02624>         [SDT=10.00: SDUR=  40.00: PTOT=  88.57]
02625> R0100: C00004-------------------------------------------------------------------------------
02626>         COMPUTE API
02627>         [APImin= 50.00:  APIkdy= .8500:  APIkdt= .9989]
02628>         [APImax=119.84:  APIavg= 69.19:  APImin= 44.87]
02629> #
02630> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02631> # of 1.32
02632> R0100: C00005------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02633>         CONTINUOUS NASHYD      30.0 01:JR_HW          3680.00    21.054 No_date   36:30   35.15 .397      .000
02634>         [CN= 64.0: N= 3.00: Tp= 7.13]
02635>         [IaREC= 4.00: SMN= 57.05: SMX=380.32: SK= .010]
02636>         [InterEventTime= 12.00]
02637> #
02638> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02639> # of 1.32
02640> R0100: C00006------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02641>         CONTINUOUS NASHYD      30.0 01:SW_13          971.00     8.058 No_date   32:30   32.81 .370      .000
02642>         [CN= 61.0: N= 3.00: Tp= 3.76]
02643>         [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
02644>         [InterEventTime= 12.00]
02645> #
02646> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02647> # of 1.80
02648> R0100: C00007------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02649>         CONTINUOUS NASHYD      30.0 01:JR_GWM         3074.00     9.983 No_date   39:30   28.27 .319      .000
02650>         [CN= 55.0: N= 3.00: Tp=11.33]
02651>         [IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
02652>         [InterEventTime= 12.00]
02653> R0100: C00008------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02654>         CONTINUOUS NASHYD      30.0 01:JR_ASH         1781.00    19.356 No_date   32:30   42.46 .479      .000
02655>         [CN= 72.0: N= 3.00: Tp= 3.91]
02656>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
02657>         [InterEventTime= 12.00]
02658> R0100: C00009------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02659>         CONTINUOUS NASHYD      30.0 01:SW_11          500.00    10.499 No_date   29:00   36.74 .415      .000
02660>         [CN= 66.0: N= 3.00: Tp= 1.24]
02661>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
02662>         [InterEventTime= 12.00]
02663> #
02664> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02665> # of 1.80
02666> R0100: C00010------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02667>         CONTINUOUS NASHYD      30.0 01:NN_CK          1917.00    14.197 No_date   34:00   36.74 .415      .000
02668>         [CN= 66.0: N= 3.00: Tp= 5.29]
02669>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
02670>         [InterEventTime= 12.00]
02671> #
02672> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02673> # of 1.52
02674> R0100: C00011------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02675>         CONTINUOUS NASHYD      30.0 01:SW_10          5666.00    36.560 No_date   37:30   42.46 .479      .000
02676>         [CN= 72.0: N= 3.00: Tp= 8.00]
02677>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
02678>         [InterEventTime= 12.00]
02679> #
02680> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02681> # of 1.75
02682> R0100: C00012------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02683>         CONTINUOUS NASHYD      30.0 01:KG_CK          8376.00    34.456 No_date   39:30   36.74 .415      .000
02684>         [CN= 66.0: N= 3.00: Tp=11.66]
02685>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
02686>         [InterEventTime= 12.00]
02687> #
02688> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02689> # of 1.68
02690> R0100: C00013------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02691>         CONTINUOUS NASHYD      30.0 01:SW_9           1132.00    16.257 No_date   30:30   40.80 .461      .000
02692>         [CN= 70.0: N= 3.00: Tp= 2.51]
02693>         [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
02694>         [InterEventTime= 12.00]
02695> #
02696> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02697> # of 1.82
02698> R0100: C00014------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02699>         CONTINUOUS NASHYD      30.0 01:NC_CK          4464.00    17.270 No_date   39:30   33.59 .379      .000
02700>         [CN= 62.0: N= 3.00: Tp=11.32]
02701>         [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
02702>         [InterEventTime= 12.00]
02703> #
02704> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02705> # of 1.80
02706> R0100: C00015------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02707> *       CONTINUOUS NASHYD      30.0 01:SW_8           131.00     3.096 No_date   28:30   34.37 .388      .000
02708>         [CN= 63.0: N= 3.00: Tp=  .90]
02709>         [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
02710>         [InterEventTime= 12.00]
02711> #
02712> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02713> # of 1.65
02714> R0100: C00016------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02715>         CONTINUOUS NASHYD      30.0 01:HB_DR          3854.00    20.590 No_date   38:00   36.74 .415      .000
02716>         [CN= 66.0: N= 3.00: Tp= 8.42]
02717>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
02718>         [InterEventTime= 12.00]
02719> #
02720> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02721> # of 1.82
02722> R0100: C00017------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02723>         CONTINUOUS NASHYD      30.0 01:SW_7           3197.00    16.027 No_date   36:00   29.76 .336      .000
02724>         [CN= 57.0: N= 3.00: Tp= 6.65]
02725>         [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
02726>         [InterEventTime= 12.00]
02727> #
02728> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02729> # of 1.75
02730> R0100: C00018------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02731>         CONTINUOUS NASHYD      30.0 01:SW_6           165.00     1.482 No_date   33:00   37.54 .424      .000
02732>         [CN= 67.0: N= 3.00: Tp= 4.18]
02733>         [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
02734>         [InterEventTime= 12.00]
02735> #
02736> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02737> # of 1.67
02738> R0100: C00019------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02739>         CONTINUOUS NASHYD      30.0 01:VG_DR          1332.00    10.635 No_date   35:00   42.46 .479      .000
02740>         [CN= 72.0: N= 3.00: Tp= 5.95]
02741>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
02742>         [InterEventTime= 12.00]
02743> R0100: C00020------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02744> *       CONTINUOUS NASHYD      30.0 01:SW_5           224.00     9.294 No_date   28:30   47.59 .537      .000
02745>         [CN= 77.0: N= 3.00: Tp=  .75]
02746>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
02747>         [InterEventTime= 12.00]
02748> #
02749> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02750> # of 1.20
02751> R0100: C00021------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02752>         CONTINUOUS NASHYD      30.0 01:FL_CK          4945.00    51.121 No_date   33:00   44.15 .498      .000
02753>         [CN= 74.0: N= 3.00: Tp= 4.45]
02754>         [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
02755>         [InterEventTime= 12.00]
02756> R0100: C00022------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02757> *       CONTINUOUS NASHYD      30.0 01:SW_5A2          20.00     1.014 No_date   28:30   52.03 .587      .000
02758>         [CN= 81.0: N= 3.00: Tp=  .62]
02759>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
02760>         [InterEventTime= 12.00]
02761> #
02762> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02763> # of 1.61
02764> R0100: C00023------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02765>         CONTINUOUS NASHYD      30.0 01:SW_5A1         1412.00     9.884 No_date   37:30   45.85 .518      .000
02766>         [CN= 75.0: N= 3.00: Tp= 8.00]
02767>         [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
02768>         [InterEventTime= 12.00]
02769> R0100: C00024------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02770>         CONTINUOUS NASHYD      30.0 01:SW_4           585.00    14.684 No_date   29:30   52.03 .587      .000
02771>         [CN= 81.0: N= 3.00: Tp= 1.75]
02772>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
02773>         [InterEventTime= 12.00]
02774> R0100: C00025------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02775>         CONTINUOUS NASHYD      30.0 01:LM_CK          1021.00    19.515 No_date   30:30   51.13 .577      .000
02776>         [CN= 80.0: N= 3.00: Tp= 2.46]
02777>         [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
02778>         [InterEventTime= 12.00]
02779> R0100: C00026------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02780> *       CONTINUOUS NASHYD      30.0 01:SW_2           177.00     7.344 No_date   28:30   47.59 .537      .000
02781>         [CN= 77.0: N= 3.00: Tp=  .75]
02782>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
02783>         [InterEventTime= 12.00]
02784> R0100: C00027------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02785>         CONTINUOUS NASHYD      30.0 01:SM_DR          1122.00    17.710 No_date   31:30   52.03 .587      .000
02786>         [CN= 81.0: N= 3.00: Tp= 3.25]
02787>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
02788>         [InterEventTime= 12.00]
02789> R0100: C00028------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02790>         CONTINUOUS NASHYD      30.0 01:MD_DR          2737.00    40.026 No_date   31:00   46.72 .527      .000
02791>         [CN= 76.0: N= 3.00: Tp= 3.03]
02792>         [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
02793>         [InterEventTime= 12.00]
02794> R0100: C00029------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02795>         CONTINUOUS NASHYD      30.0 01:SW_1           3176.00    43.079 No_date   32:00   48.46 .547      .000
02796>         [CN= 78.0: N= 3.00: Tp= 3.56]
02797>         [IaREC= 4.00: SMN= 29.88: SMX=199.22: SK= .010]
02798>         [InterEventTime= 12.00]
02799> #
02800> # Routing hydrographs
02801> #
02802> # Starting with the addition of Jock River Headwater and Subwatershed 13
02803> #
02804> R0100: C00030------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02805>         ADD HYD                30.0 02:JR_HW          3680.00    21.054 No_date   36:30   35.15 n/a       .000

02806>                       +        30.0 02:SW_13          971.00     8.058 No_date   32:30   32.81 n/a       .000
02807>                     SUM=       30.0 01:S_N13          4651.00   27.020 No_date   35:00   34.66 n/a       .000
02808> #
02809> # Sum of hydrographs from Node 13 routed to Node 13A
02810> # (Approximated cross-section - see cross-section 258)
02811> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02812> #
02813> R0100: C00031------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02814>         ROUTE CHANNEL    ->    30.0 02:JR_GWM         4651.00   27.020 No_date   35:00   34.66 n/a       .000
02815>         [RDT=30.00]  out <-    30.0 01:N13A           4651.00   22.149 No_date   38:30   34.66 n/a       .000
02816>         [L/S/n= 9074./ .022/ .040]
02817>         [Vmax=  .594: Dmax= 4.138]
02818> #
02819> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
02820> #
02821> R0100: C00032------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02822>         ADD HYD                30.0 02:N13A           4651.00   22.149 No_date   38:30   34.66 n/a       .000
02823>                       +        30.0 02:JR_GWM         3074.00    9.983 No_date   39:30   28.27 n/a       .000
02824>                     SUM=       30.0 01:SN13A          7725.00   31.987 No_date   39:30   32.12 n/a       .000
02825> #
02826> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
02827> #
02828> R0100: C00033------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02829>         ROUTE RESERVOIR ->     30.0 02:SN13A          7725.00   31.987 No_date   39:30   32.12 n/a       .000
02830>                       out <=   30.0 01:RES_GM         7725.00    3.938 No_date   63:30   32.12 n/a       .000
02831>         [MxStoUsed=  .1767E+03   m3]
02832> #
02833> R0100: C00034------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02834>         SAVE HYD               30.0 01:RES_GM         7725.00    3.938 No_date   63:30   32.12 n/a       .000
02835>         fname: H_RESGM
02836>         remark: Outflow from Res GM
02837> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
02838> # (Approximated cross-section - see cross-section 258)
02839> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02840> R0100: C00035------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02841>         ROUTE CHANNEL    ->    30.0 02:RES_GM         7725.00    3.938 No_date   63:30   32.12 n/a       .000
02842>         [RDT=30.00]  out <-    30.0 01:N12            7725.00    3.934 No_date   66:30   32.12 n/a       .000
02843>         [L/S/n= 5926./ .076/ .040]
02844>         [Vmax=  .560: Dmax= 1.558]
02845> #
02846> # Addition of Subwatershed Jock River at Ashton to Node 12
02847> #
02848> R0100: C00036------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02849>         ADD HYD                30.0 02:N12            7725.00    3.934 No_date   66:30   32.12 n/a       .000
02850>                       +        30.0 02:JR_ASH         1781.00   19.356 No_date   32:30   42.46 n/a       .000
02851>                     SUM=       30.0 01:S_N12          9506.00   21.410 No_date   32:30   34.06 n/a       .000
02852> R0100: C00037------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02853>         SAVE HYD               30.0 01:S_N12          9506.00   21.410 No_date   32:30   34.06 n/a       .000
02854>         fname: H_SN12
02855>         remark: flow at S_N12 near Ashton
02856> #
02857> # Sum of hydrographs from Node 12 routed to Node 11
02858> # (Approximated cross-section - see cross-section 258)
02859> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02860> R0100: C00038------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02861>         ROUTE CHANNEL    ->    30.0 02:S_N12          9506.00   21.410 No_date   32:30   34.06 n/a       .000
02862>         [RDT=30.00]  out <-    30.0 01:N11            9506.00   21.115 No_date   33:00   34.06 n/a       .000
02863>         [L/S/n=  972./ .051/ .040]
02864>         [Vmax=  .760: Dmax= 3.206]
02865> #
02866> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
02867> #
02868> R0100: C00039------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02869>         ROUTE CHANNEL    ->    30.0 02:S_N12          9506.00   21.410 No_date   32:30   34.06 n/a       .000
02870>         [RDT=30.00]  out <-    30.0 01:Dumm1          9506.00   21.111 No_date   32:30   34.06 n/a       .000
02871>         [L/S/n=  972./ .054/ .040]
02872>         [Vmax=  .774: Dmax= 3.175]
02873> #
02874> # Addition of Subwatershed 11 and No Name Creek to Node 11
02875> #
02876> R0100: C00040------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02877>         ADD HYD                30.0 02:Dumm1          9506.00   21.111 No_date   32:30   34.06 n/a       .000
02878>                       +        30.0 02:SW_11          500.00    10.499 No_date   29:00   36.74 n/a       .000
02879>                       +        30.0 02:NN_CK          1917.00   14.197 No_date   34:00   36.74 n/a       .000
02880>                     SUM=       30.0 01:S_N11          11923.00  37.433 No_date   33:00   34.60 n/a       .000
02881> #
02882> # Sum of hydrographs from Node 11 routed to Node 10
02883> # Section 1
02884> #
02885> R0100: C00041------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02886>         ROUTE CHANNEL    ->    30.0 02:S_N11          11923.00  37.433 No_date   33:00   34.60 n/a       .000
02887>         [RDT=30.00]  out <-    30.0 01:N10            11923.00  23.312 No_date   39:00   34.60 n/a       .000
02888>         [L/S/n=14028./ .157/ .040]
02889>         [Vmax=  .484: Dmax= 1.483]
02890> #
02891> # Addition of Subwatershed 10 to Node 10
02892> #
02893> R0100: C00042------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02894>         ADD HYD                30.0 02:N10            11923.00  23.312 No_date   39:00   34.60 n/a       .000
02895>                       +        30.0 02:SW_10          5666.00   36.560 No_date   37:30   42.46 n/a       .000
02896>                     SUM=       30.0 01:S_N10          17589.00  59.667 No_date   38:00   37.13 n/a       .000
02897> R0100: C00043------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02898>         SAVE HYD               30.0 01:S_N10          17589.00  59.667 No_date   38:00   37.13 n/a       .000
02899>         fname: H_SN10
02900>         remark: flow at S_N10:  N10 + SW_10
02901> # Addition of Kings Creek to S_N10
02902> #
02903> R0100: C00044------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02904>         ADD HYD                30.0 02:S_N10          17589.00  59.667 No_date   38:00   37.13 n/a       .000
02905>                       +        30.0 02:KG_CK          8376.00   34.456 No_date   39:30   36.74 n/a       .000
02906>                     SUM=       30.0 01:S_N10A         25965.00  93.246 No_date   39:30   37.01 n/a       .000
02907> #
02908> # Sum of hydrographs from Node 10 routed to Node 9
02909> # Section 2
02910> #
02911> R0100: C00045------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02912>         ROUTE CHANNEL    ->    30.0 02:S_N10A         25965.00  93.246 No_date   39:30   37.01 n/a       .000
02913>         [RDT=30.00]  out <-    30.0 01:N9             25965.00  91.373 No_date   39:30   37.00 n/a       .000
02914>         [L/S/n= 3982./ .075/ .040]
02915>         [Vmax=  .769: Dmax= 2.125]
02916> #
02917> # Addition of Subwatershed 9 and Nichols Creek to Node 9
02918> #
02919> R0100: C00046------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02920>         ADD HYD                30.0 02:N9             25965.00  91.373 No_date   39:30   37.00 n/a       .000
02921>                       +        30.0 02:SW_9           1132.00   16.257 No_date   30:30   40.80 n/a       .000
02922>                       +        30.0 02:NC_CK          4464.00   17.270 No_date   39:30   33.59 n/a       .000
02923>                     SUM=       30.0 01:S_N9           31561.00  112.264 No_date   39:30   36.66 n/a       .000
02924> #
02925> # Sum of hydrographs from Node 9 routed to Node 8
02926> # Section 3
02927> #
02928> R0100: C00047------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02929>         ROUTE CHANNEL    ->    30.0 02:S_N9           31561.00  112.264 No_date   39:30   36.66 n/a       .000
02930>         [RDT=30.00]  out <-    30.0 01:N8             31561.00  106.464 No_date   40:00   36.66 n/a       .000
02931>         [L/S/n= 2269./ .088/ .045]
02932>         [Vmax=  .372: Dmax= 1.905]
02933> #
02934> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
02935> #
02936> R0100: C00048------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02937>         ADD HYD                30.0 02:N8             31561.00  106.464 No_date   40:00   36.66 n/a       .000
02938>                       +        30.0 02:SW_8           131.00    3.096 No_date   28:30   34.37 n/a       .000
02939>                       +        30.0 02:HB_DR          3854.00   20.590 No_date   38:00   36.74 n/a       .000
02940>                     SUM=       30.0 01:S_N8           35546.00  126.233 No_date   39:30   36.66 n/a       .000
02941> #
02942> # Sum of hydrographs from Node 8 routed to Node 7
02943> # Section 4
02944> #
02945> R0100: C00049------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02946>         ROUTE CHANNEL    ->    30.0 02:S_N8           35546.00  126.233 No_date   39:30   36.66 n/a       .000
02947>         [RDT=30.00]  out <-    30.0 01:N7             35546.00  108.761 No_date   44:30   36.66 n/a       .000
02948>         [L/S/n= 3750./ .053/ .070]
02949>         [Vmax=  .236: Dmax= 2.384]
02950> #
02951> # Addition of Subwatershed 7 to Node 7
02952> #
02953> R0100: C00050------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02954>         ADD HYD                30.0 02:N7             35546.00  108.761 No_date   44:30   36.66 n/a       .000
02955>                       +        30.0 02:SW_7           3197.00   16.027 No_date   36:00   29.76 n/a       .000
02956>                     SUM=       30.0 01:S_N7           38743.00  117.353 No_date   43:30   36.09 n/a       .000
02957> R0100: C00051------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02958>         SAVE HYD               30.0 01:S_N7           38743.00  117.353 No_date   43:30   36.09 n/a       .000
02959>         fname: H_SN7
02960>         remark: flow at S_N7:  N7 + SW_7
02961> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
02962> # Storage area and volumes were estimated from available topo maps.
02963> # Release rate from fen was assumed to be controlled by the downstream
02964> # river cross-section for summer conditions.  It is was assumed that for up to
02965> # 0.75 m of water, the main channel of the river provided the storage.  Above
02966> # this depth, the wetland starts to signigicantly store water.
02967> #
02968> R0100: C00052------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02969>         ROUTE RESERVOIR ->     30.0 02:S_N7           38743.00  117.353 No_date   43:30   36.09 n/a       .000
02970>                       out <=   30.0 01:RES_RF         38743.00  60.593 No_date   58:30   36.09 n/a       .000
02971>         [MxStoUsed=  .5014E+03   m3]
02972> R0100: C00053------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02973>         SAVE HYD               30.0 01:RES_RF         38743.00  60.593 No_date   58:30   36.09 n/a       .000
02974>         fname: H_RESRF
02975>         remark: outflow of Richmond Fen
02976> #
02977> # Sum of hydrographs from Node 7 routed to Node 6
02978> # Section 5
02979> #
02980> R0100: C00054------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02981>         ROUTE CHANNEL    ->    30.0 02:RES_RF         38743.00  60.593 No_date   58:30   36.09 n/a       .000
02982>         [RDT=30.00]  out <-    30.0 01:N6             38743.00  60.336 No_date   60:00   36.09 n/a       .000
02983>         [L/S/n= 3056./ .082/ .025]
02984>         [Vmax=  .553: Dmax= 1.353]
02985> #
02986> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
02987> #
02988> R0100: C00055------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02989>         ADD HYD                30.0 02:N6             38743.00  60.336 No_date   60:00   36.09 n/a       .000
02990>                       +        30.0 02:SW_6           165.00    1.482 No_date   33:00   37.54 n/a       .000
02991>                       +        30.0 02:VG_DR          1332.00   10.635 No_date   35:00   42.46 n/a       .000
02992>                     SUM=       30.0 01:S_N6           40240.01  60.497 No_date   59:30   36.31 n/a       .000
```

```
02993> #
02994> # Sum of hydrographs from Node 6 routed to Node 5
02995> # Section 6
02996> #
02997> R0100: C00056------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
02998>       ROUTE CHANNEL    ->    30.0 02: S_N6        40240.01    60.497 No_date   59:30   36.31  n/a      .000
02999>         [RDT=30.00] out<-    30.0 01: N5          40240.01    60.383 No_date   60:30   36.31  n/a      .000
03000>         [L/S/n= 1852./ .054/.035]
03001>         [Vmax=  .490: Dmax= 1.451]
03002> #
03003> # Addition of Subwatershed 5 and Flowing Creek to Node 5
03004> #
03005> R0100: C00057------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03006>       ADD HYD              30.0 02: N5          40240.01    60.383 No_date   60:30   36.31  n/a      .000
03007>                        +   30.0 02: SW_5          224.00     9.294 No_date   28:30   47.59  n/a      .000
03008>                        +   30.0 02: FL_CK        4945.00    51.121 No_date   33:00   44.15  n/a      .000
03009>                      SUM=  30.0 01: S_N5        45409.01    79.891 No_date   34:00   37.22  n/a      .000
03010> #
03011> # Sum of hydrographs from Node 5 routed to Node 5A
03012> # Section 7
03013> #
03014> R0100: C00058------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03015>       ROUTE CHANNEL    ->    30.0 02: S_N5        45409.01    79.891 No_date   34:00   37.22  n/a      .000
03016>         [RDT=30.00] out<-    30.0 01: N5A         45409.01    79.815 No_date   34:00   37.22  n/a      .000
03017>         [L/S/n=  556./ .090/.040]
03018>         [Vmax=  .544: Dmax= 1.346]
03019> #
03020> # Addition of Subwatershed 5Al and Subwatershed 5A2 to Node 5A
03021> #
03022> R0100: C00059------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03023>       ADD HYD              30.0 02: N5A         45409.01    79.815 No_date   34:00   37.22  n/a      .000
03024>                        +   30.0 02: SW_5A2          20.00     1.014 No_date   28:30   52.03  n/a      .000
03025>                        +   30.0 02: SW_5Al        1412.00     9.884 No_date   37:30   45.85  n/a      .000
03026>                      SUM=  30.0 01: S_N5A       46841.01    88.619 No_date   34:30   37.48  n/a      .000
03027> #
03028> # Sum of hydrographs from Node 5A routed to Node 4
03029> # Section 8
03030> #
03031> R0100: C00060------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03032>       ROUTE CHANNEL    ->    30.0 02: S_N5A       46841.01    88.619 No_date   34:30   37.48  n/a      .000
03033>         [RDT=30.00] out<-    30.0 01: N4          46841.01    84.955 No_date   36:00   37.48  n/a      .000
03034>         [L/S/n= 4630./ .043/.035]
03035>         [Vmax=  .901: Dmax= 3.849]
03036> #
03037> # Addition of Subwatershed 4 and Leamy Creek to Node 4
03038> #
03039> R0100: C00061------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03040>       ADD HYD              30.0 02: N4          46841.01    84.955 No_date   36:00   37.48  n/a      .000
03041>                        +   30.0 02: SW_4           585.00    14.684 No_date   29:30   52.03  n/a      .000
03042>                        +   30.0 02: LM_CK         1021.00    19.515 No_date   30:30   51.13  n/a      .000
03043>                      SUM=  30.0 01: S_N4        48447.00    95.694 No_date   34:30   37.95  n/a      .000
03044> R0100: C00062------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03045>       SAVE HYD             30.0 01: S_N4        48447.00    95.694 No_date   34:30   37.95  n/a      .000
03046>         fname: S_N4.0100
03047>         remrk: flow at S_N4
03048> #
03049> # Sum of hydrographs from Node 4 routed to Node 2
03050> # Section 9
03051> #
03052> R0100: C00063------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03053>       ROUTE CHANNEL    ->    30.0 02: S_N4        48447.00    95.694 No_date   34:30   37.95  n/a      .000
03054>         [RDT=30.00] out<-    30.0 01: N2          48447.00    95.342 No_date   35:00   37.95  n/a      .000
03055>         [L/S/n= 1667./ .060/.040]
03056>         [Vmax=  .942: Dmax= 3.915]
03057> #
03058> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
03059> #
03060> R0100: C00064------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03061>       ADD HYD              30.0 02: N2          48447.00    95.342 No_date   35:00   37.95  n/a      .000
03062>                        +   30.0 02: SW_2           177.00     7.344 No_date   28:30   47.59  n/a      .000
03063>                        +   30.0 02: SM_DR          1122.00    17.710 No_date   31:30   52.03  n/a      .000
03064>                        +   30.0 02: MO_DR          2737.00    40.026 No_date   31:00   46.72  n/a      .000
03065>                      SUM=  30.0 01: S_N2        52483.00   141.415 No_date   32:30   38.74  n/a      .000
03066> R0100: C00065------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03067>       SAVE HYD             30.0 01: S_N2        52483.00   141.415 No_date   32:30   38.74  n/a      .000
03068>         fname: H_SN2
03069>         remrk: flow at S_N2 Jock River Gauge at Moodie Dr.
03070> #
03071> # Sum of hydrographs from Node 2 routed to Node 1
03072> # Section 10
03073> #
03074> R0100: C00066------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03075>       ROUTE CHANNEL    ->    30.0 02: S_N2        52483.00   141.415 No_date   32:30   38.74  n/a      .000
03076>         [RDT=30.00] out<-    30.0 01: N1          52483.00   124.304 No_date   35:00   38.74  n/a      .000
03077>         [L/S/n=10046./ .050/.040]
03078>         [Vmax=  1.091: Dmax= 4.553]
03079> #
03080> # Addition of Subwatershed 1 to Node 1
03081> #
03082> R0100: C00067------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03083>       ADD HYD              30.0 02: N1          52483.00   124.304 No_date   35:00   38.74  n/a      .000
03084>                        +   30.0 02: SW_1          3176.00    43.079 No_date   32:00   48.46  n/a      .000
03085>                      SUM=  30.0 01: N1          55659.00   158.420 No_date   34:00   39.29  n/a      .000
03086> R0100: C00068------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03087>       SAVE HYD             30.0 01: N1          55659.00   158.420 No_date   34:00   39.29  n/a      .000
03088>         fname: N1.0100
03089>         remrk: total outflow of Jock River
03090> ##############################################################################
03091> R0100: C00002-------------------------------------------------------------------------------------------
03092>       FINISH
03093> -------------------------------------------------------------------------------------------------------
03094> *******************************************************************************************************
03095>       WARNINGS / ERRORS / NOTES
03096>       -------------------------
03097> R0002: C00015   CONTINUOUS NASHYD
03098> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03099> R0002: C00020   CONTINUOUS NASHYD
03100> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03101> R0002: C00022   CONTINUOUS NASHYD
03102> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03103> R0002: C00026   CONTINUOUS NASHYD
03104> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03105> R0005: C00015   CONTINUOUS NASHYD
03106> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03107> R0005: C00020   CONTINUOUS NASHYD
03108> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03109> R0005: C00022   CONTINUOUS NASHYD
03110> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03111> R0005: C00026   CONTINUOUS NASHYD
03112> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03113> R0010: C00015   CONTINUOUS NASHYD
03114> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03115> R0010: C00020   CONTINUOUS NASHYD
03116> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03117> R0010: C00022   CONTINUOUS NASHYD
03118> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03119> R0010: C00026   CONTINUOUS NASHYD
03120> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03121> R0025: C00015   CONTINUOUS NASHYD
03122> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03123> R0025: C00020   CONTINUOUS NASHYD
03124> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03125> R0025: C00022   CONTINUOUS NASHYD
03126> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03127> R0025: C00026   CONTINUOUS NASHYD
03128> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03129> R0050: C00015   CONTINUOUS NASHYD
03130> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03131> R0050: C00020   CONTINUOUS NASHYD
03132> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03133> R0050: C00022   CONTINUOUS NASHYD
03134> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03135> R0050: C00026   CONTINUOUS NASHYD
03136> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03137> R0100: C00015   CONTINUOUS NASHYD
03138> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03139> R0100: C00020   CONTINUOUS NASHYD
03140> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03141> R0100: C00022   CONTINUOUS NASHYD
03142> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03143> R0100: C00026   CONTINUOUS NASHYD
03144> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
03145>    Simulation ended on 2021-02-22      at 15:43:22
03146> =======================================================================================================
03147>
03148>
```

JFSA
WATER RESOURCES AND
ENVIRONMENTAL CONSULTANTS

Ottawa. ON
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Attachment B

Model 2 – Jock River Reach One Model

Stantec, 2007

SWMHYMO Input & Summary files

```
2    Metric units
*#************************************************************************
*#  Project Name: [Jock River Reach 1 SubWatershed Study]Project #: [160400414]
*#  Date        : October 2006
*#  Modeller    : [Navin Gautam/ Original by Ana M Paerez]
*#  Company     : Stantec.
*#  License #   :  3824306
*#************************************************************************
START                TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[002]
*%                    ["C24SC002.stm"] <--storm filename, one per line for NSTORM time
*#-----------------|---------------------------------------------------------|
READ STORM           STORM_FILENAME=["storm 001"]
*%-----------------|---------------------------------------------------------|
MODIFY STORM         ICASEms=[1],   NSHIFT=[96],
                     RedFACT=[1],
*%-----------------|---------------------------------------------------------|
DEFAULT VALUES       ICASEdv=[1],  read and print values
                     DEFVAL_FILENAME=["MODIFIED.VAL"]
COMPUTE API          API I=[50], API K=[.85]/day
*#************************************************************************
*#
*#            JOCK RIVER REACH 1 SUBWATERSHED STUDY DISCRETIZED MODEL
*#                    PROPOSED CONDITIONS DESIGN STORM MODEL (SUMMER)
*#
*# Version: Draft Final Report, October 2006
*# Revision History
*# -Draft Interim Condition Report, Nov. 2005
*#************************************************************************
*# Assumptions
*# - All catchments are assumed to be developed except S-1, S-2, and SW-1a
*# - SWM facilities are modeled
*# - Rating curves were estimated based on existing reports and modeling for the
*#   proposed SWM facilities
*# - The rating curve for the existing Kennedy Burnett SWM Facility was obtained from
*#   the Urban Runoff Treatment in the Kennedy Burnett Settling Pond (URTKBP)- Regional
*#   Municipality of Ottawa Carleton, March 1983
*# - River routing modeled
*# - River cross sections obtained from RVCA's HEC-RAS hydraulic model
*#-----------------|---------------------------------------------------------|
*# Parameters
*# - Design Storms: 2,5,10,25,50 &100yr events: 24hr SCS (DT=10min)-model comparison
*# - Impervious area weighted based on: rural subdivision @20%, urban @55%
*# - NRCS(SCS) CN based on landuse (airphoto) and soil type (base mapping)
*# - Time to peak using Uplands Method
*#-----------------|---------------------------------------------------------|
*#************************************************************************
*#Read hydrograph upstream of N2 from RVCA Jock R. floodrisk watershed modeling
*#************************************************************************
READ HYD             ID=[ 1 ],   NHYD=["S_N2"],
                     HYD_FILENAME=["H-S_N2"]
*%-----------------|---------------------------------------------------------|
*#
*# Hydrograph from Node 2 routed to Node 416
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
*#
ROUTE CHANNEL        IDout=[4], NHYD=["N_416"] ,IDin=[1] ,
                     RDT=[10](min),
                     CHLGTH=[2327](m),   CHSLOPE=[0.0498](%),
                                          FPSLOPE=[0.0498](%),
                     SECNUM=[1.0],          NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.075,-23.96
                       -0.055,23.96
                       0.075,157.38]   NSEG times
                     ( DISTANCE (m), ELEVATION (m))=
                     [-336.97,93.5]
```

```
                        [-318.85,93]
                        [-259,92.5]
                        [-133.18,92]
                        [-33.17,92]
                        [-27.21,92]
                        [-26.14,91.5]
                        [-24.99,91]
                        [-23.96,90.5]
                        [-14.33,88.26]
                        [-0.68,88.12]
                        [14.33,88.26]
                        [23.96,90.5]
                        [32.12,91]
                        [43.74,91.5]
                        [57.09,92]
                        [73.53,92.5]
                        [108.27,93]
                        [125.88,93.5]
                        [144.81,94]
                        [157.38,94.5]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Catchment SW-1a
*#     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
*#     - Undeveloped agricultural land
*#################################################################################
CONTINUOUS NASHYD   ID=[2], NHYD=["SW_1a"], DT=[5]min, AREA=[546](ha),
                    DWF=[0](cms), CN/C=[72],  IA=[4.67](mm),
                    N=[3], TP=[2.79]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
ADD HYD             IDsum=[ 3 ], NHYD=["SN_416"], IDs to add=[4,2]
*%----------------|---------------------------------------------------------------|
SAVE HYD            ID=[ 3 ],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Highway 416"]
*%----------------|---------------------------------------------------------------|
*#
*# Hydrograph from Node 416 routed to Node at Okeefe drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
*#
ROUTE CHANNEL       IDout=[1], NHYD=["N_OK"] ,IDin=[3] ,
                    RDT=[5](min),
                    CHLGTH=[497](m),  CHSLOPE=[0.3018](%),
                                        FPSLOPE=[0.3018](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.075,-19.40
                      -0.055,19.40
                      0.075,377.02] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                    [-1062.81, 93.00]
                    [-1061.41, 92.50]
                    [-945.91, 92.00]
                    [-783.64, 91.50]
                    [-136.74, 91.00]
                    [-134.06, 91.00]
                    [-128.97, 91.00]
                    [-86.04, 91.00]
                    [-20.86, 91.00]
```

```
                        [-20.18,  90.50]
                        [-19.40,  90.00]
                        [-11.68,  86.89]
                        [0.00,  86.10]
                        [12.09,  86.81]
                        [19.40,  90.00]
                        [34.68,  90.50]
                        [60.56,  91.00]
                        [170.14,  91.00]
                        [175.05,  90.50]
                        [180.29,  90.00]
                        [193.41,  90.00]
                        [195.98,  90.50]
                        [377.02,  92.50]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Catchment OKEEFE
*#     - To O'Keefe drain (north of the Jock)
*#     - Developed with assumed 43% imp.
*#################################################################################
CONTINUOUS STANDHYD ID=[2], NHYD=["OKEEFE"], DT=[5](min), AREA=[448](ha),
                        XIMP=[0.43], TIMP=[0.43], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                                LGI=[1728](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1

*#################################################################################
*#     Okeefe Pond
*#     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#     and a ratio of the catchment area to the West Clarke pond rating curve
*#       from the MSS for the next coordinates
*#################################################################################
ROUTE RESERVOIR     IDout=[4],    NHYD=["P_OKE"],   IDin=[2],
                        RDT=[5](min),
                               TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [    0.0 ,   0.0 ]
                                    [    0.20 ,  1.72]
                                    [    -1   ,  -1  ]  (max twenty pts)
                        IDovf=[9], NHYDovf=["ok-OVF"]

*%----------------|---------------------------------------------------------------|
ADD HYD             IDsum=[ 3 ], NHYD=["SN_OK"], IDs to add=[1,4,9]
*%----------------|---------------------------------------------------------------|
SAVE HYD            ID=[ 3 ],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Okeefe Drain"]
*%----------------|---------------------------------------------------------------|
*#
*# Hydrograph from Node Okeefe routed to Node at Foster Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
*#
ROUTE CHANNEL       IDout=[1], NHYD=["N_FO"] ,IDin=[3] ,
                        RDT=[5](min),
                        CHLGTH=[1183](m),   CHSLOPE=[0.0761](%),
                                             FPSLOPE=[0.0761](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-33.89
                          -0.035,31.59
                          0.050,854.54] NSEG times
```

```
                        ( DISTANCE (m), ELEVATION (m))=
                        [-1075.50,  93.00]
                        [-1070.59,  92.50]
                        [-1003.21,  92.00]
                        [-1001.67,  92.00]
                        [-986.64,  92.00]
                        [-816.61,  91.50]
                        [-797.29,  91.00]
                        [-794.18,  91.00]
                        [-775.41,  91.50]
                        [-702.63,  91.50]
                        [-546.19,  91.50]
                        [-529.54,  91.50]
                        [-323.44,  91.00]
                        [-320.71,  91.00]
                        [-183.59,  91.00]
                        [-182.54,  90.50]
                        [-181.36,  90.00]
                        [-177.37,  90.00]
                        [-87.70,  90.00]
                        [-33.89,  90.00]
                        [-18.52,  86.88]
                        [0.00,85.20]
                        [16.20,  86.83]
                        [31.59,  90.00]
                        [33.03,  90.50]
                        [34.41,  91.00]
                        [34.99,  91.00]
                        [72.19,  91.00]
                        [208.76,  91.50]
                        [846.25,  92.00]
                        [854.54,  94.00]
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment FOSTER
*#     - To Foster ditch (north of the Jock)
*#     - Partially developed (medium density); remaining agricultural
*#*****************************************************************************
CONTINUOUS STANDHYD ID=[2], NHYD=["FOSTER"], DT=[5]min, AREA=[373](ha),
                        XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[74],
                        Pervious    surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                                LGI=[1577](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1

*#*****************************************************************************
*#     Foster Pond
*#     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#     and a ratio of the catchment area to the West Clarke pond rating curve
*#       from the MSS for the next coordinates
*#*****************************************************************************
ROUTE RESERVOIR     IDout=[4],    NHYD=["P_FOS"],   IDin=[2],
                        RDT=[5](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                          (cms) - (ha-m)
                                    [    0.0 ,   0.0 ]
                                    [    0.20 ,  1.72]
                                    [    -1   ,  -1   ]  (max twenty pts)
                              IDovf=[9], NHYDovf=["FO-OVF"]
*%----------------|---------------------------------------------------------------|
ADD HYD             IDsum=[ 3 ], NHYD=["SN_FO"], IDs to add=[1,4,9]
```

```
*%----------------|---------------------------------------------------------|
SAVE HYD          ID=[ 3 ],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Foster Drain"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Node Foster routed to Node at Cedarview Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
*#
ROUTE CHANNEL     IDout=[1], NHYD=["N_CE"] ,IDin=[3] ,
                  RDT=[5](min),
                  CHLGTH=[159](m),   CHSLOPE=[0.0818](%),
                                       FPSLOPE=[0.0818](%),
                  SECNUM=[1.0],          NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=
                    [0.050,-15.46
                    -0.035,26.55
                    0.050,1299.52] NSEG times
                  ( DISTANCE (m), ELEVATION (m))=
                  [-891.38, 93.00]
                  [-882.49, 93.00]
                  [-880.92, 92.50]
                  [-879.37, 92.00]
                  [-877.72, 91.50]
                  [-876.10, 91.00]
                  [-873.23, 91.00]
                  [-871.82, 91.50]
                  [-870.40, 92.00]
                  [-803.44, 92.00]
                  [-645.23, 91.50]
                  [-391.20, 91.50]
                  [-91.00, 91.50]
                  [-85.52, 91.50]
                  [-15.46, 89.40]
                  [-9.79, 89.31]
                  [-3.22, 86.24]
                  [3.22, 85.07]
                  [10.96, 85.79]
                  [16.44, 86.49]
                  [26.55, 89.45]
                  [29.03, 90.27]
                  [35.76, 90.67]
                  [36.67, 91.00]
                  [108.08, 91.00]
                  [109.82, 90.50]
                  [112.04, 90.50]
                  [114.62, 91.00]
                  [116.76, 91.50]
                  [118.42, 92.00]
                  [449.53, 92.50]
                  [571.98, 92.50]
                  [1093.81, 93.50]
                  [1150.48, 94.00]
                  [1299.52, 95.00]
*%----------------|---------------------------------------------------------|
*#*************************************************************************
*#    Catchment S-1
*#    - To Jock River (north and south of Jock)
*#    - Primarily agricultural fields; portion of sand quarry
*#*************************************************************************
CONTINUOUS NASHYD ID=[2], NHYD=["S-1"], DT=[5]min, AREA=[245](ha),
                  DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                  N=[3], TP=[1.10]hrs,
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[12](hrs)
```

```
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1

*%----------------|-------------------------------------------------------------|
ADD HYD                 IDsum=[ 3 ], NHYD=["SN_CE"], IDs to add=[1,2]
*%----------------|-------------------------------------------------------------|
SAVE HYD                ID=[ 3 ],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Cedarview Road"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
*#
ROUTE CHANNEL           IDout=[1], NHYD=["N_WC"] ,IDin=[3] ,
                        RDT=[5](min),
                        CHLGTH=[825](m),   CHSLOPE=[0.01](%),
                                             FPSLOPE=[0.01](%),
                        SECNUM=[1.0],          NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-37.5
                          -0.035,37.50
                          0.050,1367.08] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-1095.18, 94.00]
                        [-1091.79, 93.50]
                        [-1088.95, 93.00]
                        [-1086.77, 93.00]
                        [-1069.38, 93.00]
                        [-1063.14, 93.00]
                        [-1017.52, 93.00]
                        [-899.70, 93.00]
                        [-877.78, 93.00]
                        [-859.62, 92.50]
                        [-803.18, 93.00]
                        [-789.92, 92.00]
                        [-37.50, 90.00]
                        [-19.61, 87.04]
                        [0.00, 85.70]
                        [14.87, 86.93]
                        [37.50, 90.00]
                        [38.54, 90.50]
                        [42.23, 91]
                        [157.05,91.50]
                        [161.44, 91.50]
                        [236.48, 93.00]
                        [385.47, 92.50]
                        [390.78, 92.50]
                        [863.80, 93.00]
                        [866.13, 93.00]
                        [990.85, 92.50]
                        [991.82, 92.50]
                        [993.04, 93.00]
                        [994.81, 93.50]
                        [1005.36, 93.00]
                        [1190.52, 93.00]
                        [1267.97, 93.50]
                        [1318.99, 94.00]
                        [1367.08, 94.50]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment W_CLAR
*#     - To West Clarke Drain (south of the Jock)
*#     - Subdivision with 43% imp. as per Barrhaven South MSS
*#*****************************************************************************
```

```
CONTINUOUS STANDHYD ID=[2], NHYD=["W_CLAR"], DT=[5]min, AREA=[243](ha),
                    XIMP=[0.43], TIMP=[0.43], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[1273](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1

*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    West Clarke Pond 2
*#    - Rating curve obtained from Barrhaven South MSS modeling
*#    - Tributary Drainage Area to MSS Pond 2 = 241 ha
*#*****************************************************************************
ROUTE RESERVOIR     IDout=[8],   NHYD=["MS_P2"],  IDin=[2],
                    RDT=[5](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,  0.0 ]
                                  [   0.11 , 0.96]
                                  [   -1  ,  -1  ]  (max twenty pts)
                          IDovf=[9], NHYDovf=["P2-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD             IDsum=[ 4 ], NHYD=["SN_WC"], IDs to add=[8,9,1]
*%----------------|-------------------------------------------------------------|
SAVE HYD            ID=[4],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at West Clarke Pond Outlet"]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
*#
ROUTE CHANNEL       IDout=[1], NHYD=["N_KB"] ,IDin=[4] ,
                    RDT=[5](min),
                    CHLGTH=[1020](m),   CHSLOPE=[0.0498](%),
                                         FPSLOPE=[0.0498](%),
                    SECNUM=[1.0],        NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.050,-23.63
                      -0.035,23.63
                      0.050,728.3] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-1082.01,94]
                    [-1028.17,92.5]
                    [-992.3,93.5]
                    [-279.34,90]
                    [-23.63,90]
                    [-13.45,87.13]
                    [-0.07,86.24]
                    [10.54,87.15]
                    [23.63,90]
                    [24.86,90.5]
                    [26.72,91]
                    [45.07,91.5]
                    [128.17,91.5]
                    [270.7,92.5]
                    [728.3,95]

*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    Catchment KEN_BU
*#    - To Kennedy-Burnett SWM Facility
*#    - Outlets to Fraser-Clarke drain (north of the Jock)
```

```
*#     - Medium density residential subdivision
*#*************************************************************************
CONTINUOUS STANDHYD ID=[2], NHYD=["KEN_BU"], DT=[5]min, AREA=[281](ha),
                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[71],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[1369](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------|
*#*************************************************************************
*#    Existing Kennedy-Burnett SWM Facility
*#     - Rating curve obtained from URTKBP
*#     - Tributary Drainage Area to Pond = 160 ha
*#*************************************************************************
ROUTE RESERVOIR     IDout=[5],    NHYD=["KEN_P"],  IDin=[2],
                    RDT=[5](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                  [    0.0 ,   0.0 ]
                                  [    0.13 ,  0.26]
                                  [    0.43 ,  0.56]
                                  [    0.67 ,  0.90]
                                  [    0.86 ,  1.32]
                                  [    1.01 ,  1.79]
                                  [    1.15 ,  2.33]
                                  [    -1   ,  -1  ]  (max twenty pts)
                           IDovf=[6], NHYDovf=["KEN-OV"]
*%----------------|-------------------------------------------------------|
*#*************************************************************************
*#     Catchment FRASER
*#     - To Fraser-Clarke drain (north of the Jock)
*#     - Developed land with assumed 43% imp.
*#*************************************************************************
CONTINUOUS STANDHYD ID=[7], NHYD=["FRASER"], DT=[5]min, AREA=[90](ha),
                    XIMP=[0.25], TIMP=[0.25], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[80],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[775](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1

*%----------------|-------------------------------------------------------|
ROUTE RESERVOIR     IDout=[8],    NHYD=["MS_P2"],  IDin=[7],
                    RDT=[5](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                  [    0.0 ,   0.0 ]
                                  [    0.04 ,  0.36]
                                  [    -1   ,  -1  ]  (max twenty pts)
                           IDovf=[9], NHYDovf=["P2-OVF"]
*%----------------|-------------------------------------------------------|
ADD HYD             IDsum=[ 4 ], NHYD=["SN_KB"], IDs to add=[5,6,8,9,1]
*%----------------|-------------------------------------------------------|
SAVE HYD            ID=[4],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Ken-Burnett Outlet"]
*%----------------|-------------------------------------------------------|
*# Hydrograph from Node Kennedy - Burnett Drain to Node Todd Drain
```

```
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
*#
ROUTE CHANNEL         IDout=[1], NHYD=["N_TO"] ,IDin=[4] ,
                      RDT=[5](min),
                      CHLGTH=[650](m),   CHSLOPE=[0.0498](%),
                                           FPSLOPE=[0.0498](%),
                      SECNUM=[1.0],          NSEG=[3]
                      ( SEGROUGH, SEGDIST (m))=
                        [0.050,-23.74
                        -0.035,23.74
                        0.050,74.7] NSEG times
                      ( DISTANCE (m), ELEVATION (m))=
                      [-74.18, 92.5]
                      [-65.96, 92]
                      [-54.17, 91.5]
                      [-29.24, 91]
                      [-27.41, 90.5]
                      [-25.64, 90]
                      [-23.74, 89.5]
                      [-22,89. 26]
                      [-20, 88.51]
                      [-19, 88.32]
                      [-15, 88.1]
                      [-10, 88.11]
                      [-5, 88.17]
                      [0, 88.27]
                      [5, 88.19]
                      [10, 88.06]
                      [15, 88.48]
                      [16, 88.7]
                      [23.74, 89.5]
                      [24.68, 90]
                      [25.57, 90.5]
                      [26.5, 91]
                      [47.55, 91]
                      [74.7, 92.5]
*%----------------|-------------------------------------------------------------|

*#*****************************************************************************
*#     Catchment TODD
*#     - To Todd Drain (south of the Jock)
*#     - Subdivision with 43% imp. as per Barrhaven South MSS
*#*****************************************************************************
CONTINUOUS STANDHYD ID=[3], NHYD=["TODD"], DT=[5]min, AREA=[195](ha),
                      XIMP=[0.43], TIMP=[0.43], DWF=[0](cms), LOSS=[2],
                      SCS curve number CN=[77],
                      Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                      Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[1140](m), MNI=[0.013], SCI=[0](min),
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[18](hrs),    END=-1

*#*****************************************************************************
*#     Todd Pond 3
*#     - Rating curve obtained from Barrhaven South MSS modeling
*#     - Tributary Drainage Area to MSS Pond 3 = 193 ha
*#*****************************************************************************
ROUTE RESERVOIR       IDout=[2],    NHYD=["MS_P3"],   IDin=[3],
                      RDT=[5](min),
                             TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [    0.0 ,   0.0 ]
                                      [    0.08 ,  0.78]
```

```
                                    [    -1   ,   -1   ]  (max twenty pts)
                          IDovf=[9], NHYDovf=["P3-OVF"]
*%-----------------|-----------------------------------------------------------|
ADD HYD             IDsum=[10], NHYD=["SN_TO"], IDs to add=[1,2,9]
*%-----------------|-----------------------------------------------------------|
SAVE HYD            ID=[ 10 ],    # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Todd Drain"]
*%-----------------|-----------------------------------------------------------
*#
*# Hydrograph from Todd Drain routed to Corrigan Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*#
ROUTE CHANNEL       IDout=[1], NHYD=["N_TO"] ,IDin=[10] ,
                    RDT=[5](min),
                    CHLGTH=[280](m),   CHSLOPE=[0.033](%),
                                         FPSLOPE=[0.033](%),
                    SECNUM=[1.0],        NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.075,-17.72
                      -0.045,17.72
                      0.075,80.62] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-83.32, 90.00]
                    [-81.36, 89.50]
                    [-79.12, 89.00]
                    [-76.13, 88.50]
                    [-20.46, 88.00]
                    [-19.36, 87.50]
                    [-18.51, 87.00]
                    [-17.72, 86.50]
                    [-11.95, 85.24]
                    [-0.11, 85.12]
                    [11.49, 85.20]
                    [17.72, 86.50]
                    [19.74, 87.00]
                    [21.22, 87.50]
                    [22.68, 88.00]
                    [24.28, 88.50]
                    [26.79, 89.00]
                    [71.98, 90.00]
                    [80.62, 90.50]
*%-----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#    Catchment CORRIG
*#    - To Corrigan Drain (south of the Jock)
*#    - Primarily Developed (medium density)
*#*****************************************************************************
CONTINUOUS STANDHYD ID=[2], NHYD=["CORRIG"], DT=[5]min, AREA=[149](ha),
                    XIMP=[0.45], TIMP=[0.45], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                             LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                             LGI=[997](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1

*%-----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#    Corrigan Pond 1
*#    - Rating curve obtained from Barrhaven South MSS modeling
*#    - Tributary Drainage Area to MSS Pond 1 = 145 ha
*#*****************************************************************************
ROUTE RESERVOIR     IDout=[5],    NHYD=["MS_P1"],   IDin=[2],
```

```
                        RDT=[5](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                 [    0.0 ,   0.0 ]
                                 [    0.06 ,  0.58]
                                 [    -1   ,  -1  ]  (max twenty pts)
                              IDovf=[4], NHYDovf=["P1-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD           IDsum=[ 3 ], NHYD=["SN_CO"], IDs to add=[1,4,5]
*%----------------|-------------------------------------------------------------|
SAVE HYD          ID=[ 3 ],    # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Corrigan Drain"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Corrigan Drain routed to Jockvale Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*#
ROUTE CHANNEL     IDout=[1], NHYD=["N_MI"] ,IDin=[3] ,
                  RDT=[5](min),
                  CHLGTH=[580](m),   CHSLOPE=[0.4448](%),
                                       FPSLOPE=[0.4448](%),
                  SECNUM=[1.0],          NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=
                    [0.075,-17.72
                    -0.045,17.72
                    0.075,80.62] NSEG times
                  ( DISTANCE (m), ELEVATION (m))=
                  [-83.32, 90.00]
                  [-81.36, 89.50]
                  [-79.12, 89.00]
                  [-76.13, 88.50]
                  [-20.46, 88.00]
                  [-19.36, 87.50]
                  [-18.51, 87.00]
                  [-17.72, 86.50]
                  [-11.95, 85.24]
                  [-0.11, 85.12]
                  [11.49, 85.20]
                  [17.72, 86.50]
                  [19.74, 87.00]
                  [21.22, 87.50]
                  [22.68, 88.00]
                  [24.28, 88.50]
                  [26.79, 89.00]
                  [71.98, 90.00]
                  [80.62, 90.50]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
*#     Catchment MILLS
*#     - To SWM Facility north of the Jock
*#     - Primarily residental development
*#*************************************************************************
CONTINUOUS STANDHYD ID=[2], NHYD=["MILLS"], DT=[5]min, AREA=[139](ha),
                  XIMP=[0.38], TIMP=[0.38], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[74],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                           LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                           LGI=[963](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),    END=-1

*%----------------|-------------------------------------------------------------|
*#*************************************************************************
```

```
*#     Chapman Mills SWM Pond
*#     - Rating curve obtained from CCL hydraulic modeling
*#*************************************************************************
ROUTE RESERVOIR      IDout=[5],    NHYD=["MILL_P"],   IDin=[2],
                     RDT=[5](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                 (cms) - (ha-m)
                              [    0.0 ,   0.0 ]
                              [    0.01 ,  0.01]
                              [    0.05 ,  0.06]
                              [    0.09 ,  0.11]
                              [    0.13 ,  0.15]
                              [    0.18 ,  0.19]
                              [    0.28 ,  0.28]
                              [    0.37 ,  0.34]
                              [    0.45 ,  0.40]
                              [    0.51 ,  0.44]
                              [    0.56 ,  0.47]
                              [    0.64 ,  0.52]
                              [    0.76 ,  0.59]
                              [    0.86 ,  0.65]
                              [    1.09 ,  0.78]
                              [    1.44 ,  0.96]
                              [    3.18 ,  1.84]
                              [    4.05 ,  2.31]
                              [    -1   ,  -1   ]  (max twenty pts)
                           IDovf=[4], NHYDovf=["MIL-OV"]
*%-----------------|-------------------------------------------------------|
ADD HYD              IDsum=[ 3 ], NHYD=["SN_MI"], IDs to add=[1,4,5]
*%-----------------|-------------------------------------------------------|
SAVE HYD             ID=[ 3 ],    # OF PCYCLES=[-1],   ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Jockvale Road"]
*%-----------------|-------------------------------------------------------|
*#
*# Hydrograph from Jockvale Road routed to Heart's Desire
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 689
*#
ROUTE CHANNEL        IDout=[1], NHYD=["N_DE"] ,IDin=[3] ,
                     RDT=[5](min),
                     CHLGTH=[1962](m),   CHSLOPE=[0.2227](%),
                                         FPSLOPE=[0.2227](%),
                     SECNUM=[1.0],          NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.075,-17.56
                       -0.045,18.27
                       0.075,67.59] NSEG times
                     ( DISTANCE (m), ELEVATION (m))=
                     [-111.59,  88.00]
                     [-102.58,  87.50]
                     [-96.20,  87.00]
                     [-90.04,  86.50]
                     [-84.02,  86.00]
                     [-77.54,  85.50]
                     [-54.07,  85.00]
                     [-39.43,  84.50]
                     [-28.30,  84.00]
                     [-24.12,  83.50]
                     [-22.30,  83.00]
                     [-20.55,  82.50]
                     [-17.56,  82.00]
                     [-12.63,  81.22]
                     [-0.11,  80.75]
                     [11.55,  81.22]
                     [18.27,  82.00]
                     [19.82,  82.50]
                     [22.48,  83.00]
```

```
                        [27.90,  83.50]
                        [29.31,  84.00]
                        [30.81,  84.50]
                        [32.51,  85.00]
                        [34.24,  85.50]
                        [36.34,  86.00]
                        [41.65,  86.50]
                        [62.64,  87.00]
                        [65.14,  87.50]
                        [67.59,  88.00]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#    Catchment DESIRE
*#    - To Jock River (north of the Jock)
*#    - Rural-estate subdivision (Heart's Desire Community)
*#################################################################################
CONTINUOUS STANDHYD ID=[2], NHYD=["DESIRE"], DT=[5]min, AREA=[24](ha),
                        XIMP=[0.25], TIMP=[0.25], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[400](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1

*%----------------|---------------------------------------------------------------|
*#################################################################################
*#    Catchment JOCKVA
*#    - To Jockvale SWM Facility
*#    - Residential development & golf course
*#################################################################################
CONTINUOUS STANDHYD ID=[3], NHYD=["JOCKVA"], DT=[5]min, AREA=[252](ha),
                        XIMP=[0.50], TIMP=[0.50], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[74],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[1296](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1

*%----------------|---------------------------------------------------------------|
*#################################################################################
*#    Jockvale SWM Facility
*#    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
*#################################################################################
ROUTE RESERVOIR     IDout=[5],    NHYD=["JOCK_P"],   IDin=[3],
                        RDT=[5](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [    0.0 ,   0.0 ]
                                    [    0.27 ,  0.03]
                                    [    0.28 ,  0.55]
                                    [    0.29 ,  1.14]
                                    [    0.30 ,  1.80]
                                    [    0.31 ,  2.32]
                                    [    1.12 ,  2.87]
                                    [    2.92 ,  3.45]
                                    [    4.64 ,  4.07]
                                    [    6.69 ,  4.72]
                                    [    9.02 ,  5.39]
```

```
                                        [    11.62 ,  6.10]
                                        [    14.42 ,  6.85]
                                        [    17.45 ,  7.62]
                                        [    20.69 ,  8.44]
                                        [    24.08 ,  9.28]
                                        [    27.68 ,  10.17]
                                        [    -1    ,  -1   ]  (max twenty pts)
                              IDovf=[4], NHYDovf=["JO-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD           IDsum=[ 3 ], NHYD=["SN_DE"], IDs to add=[1,2,4,5]
*%----------------|-------------------------------------------------------------|
SAVE HYD          ID=[ 3 ],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Heart's Desire"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Heart's Desire routed to Rideau River
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 0
*#
ROUTE CHANNEL     IDout=[1], NHYD=["N1"] ,IDin=[3] ,
                  RDT=[5](min),
                  CHLGTH=[563](m),   CHSLOPE=[0.9668](%),
                                       FPSLOPE=[0.9668](%),
                  SECNUM=[1.0],        NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=
                    [0.075,-30.20
                    -0.045,30.20
                    0.075,168.81] NSEG times
                  ( DISTANCE (m), ELEVATION (m))=
                  [-170.17,  86.00]
                  [-164.75,  85.50]
                  [-158.08,  85.00]
                  [-113.12,  82.00]
                  [-98.46,  81.50]
                  [-92.24,  81.00]
                  [-86.88,  80.50]
                  [-81.54,  80.00]
                  [-74.36,  79.50]
                  [-63.54,  79.00]
                  [-39.23,  78.50]
                  [-34.51,  78.00]
                  [-33.01,  77.50]
                  [-30.20,  77.00]
                  [-13.42,  76.18]
                  [-1.14,  76.09]
                  [17.06,  76.18]
                  [30.20,  77.00]
                  [32.95,  77.50]
                  [34.06,  78.00]
                  [35.11,  78.50]
                  [36.32,  79.00]
                  [37.74,  79.50]
                  [48.48,  81.50]
                  [49.25,  82.00]
                  [55.61,  84.50]
                  [57.09,  85.00]
                  [59.51,  85.50]
                  [64.34,  86.00]
                  [66.30,  86.00]
                  [76.71,  86.50]
                  [101.83,  86.50]
                  [119.73,  87.00]
                  [142.04,  87.50]
                  [168.81,  88.00]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
*#     Catchment S-2
```

```
*#     - To Jock River (north and south)
*#     - Undeveloped floodplain and river
*#*************************************************************************
CONTINUOUS NASHYD   ID=[2], NHYD=["S-2"], DT=[5]min, AREA=[102](ha),
                    DWF=[0](cms), CNVC=[72],  IA=[4.67](mm),
                    N=[3], TP=[0.40]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1

*%----------------|-------------------------------------------------------|
ADD HYD             IDsum=[ 3 ], NHYD=["SN_N1"], IDs to add=[1,2]
*%----------------|-------------------------------------------------------|
SAVE HYD            ID=[ 3 ],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Rideau River"]
*%----------------|-------------------------------------------------------|
*% 5 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[005]
*%                   ["C24SC005.stm"] <--storm filename, one per line for NSTORM time
*%----------------|-------------------------------------------------------|
*% 10 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
*%START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[010]
*%                   ["C24SC010.stm"] <--storm filename, one per line for NSTORM time
*%----------------|-------------------------------------------------------|
*% 25 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[025]
*%                   ["C24SC025.stm"] <--storm filename, one per line for NSTORM time
*%----------------|-------------------------------------------------------|
*% 50 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
*%START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[050]
*%                   ["C24SC050.stm"] <--storm filename, one per line for NSTORM time
*%----------------|-------------------------------------------------------|
*% 100 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START               TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                   ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
*%----------------|-------------------------------------------------------|

*#########################################################################
FINISH
```

```
00001> ================================================================================
00002>
00003> SSSSS  W    W  M    M  H    H  Y    Y  M    M   OOO          999     999  =========
00004> S      W    W  MM  MM  H    H   Y  Y   MM  MM  O   O      9   9   9   9
00005> SSSSS  W W W  M MM M  HHHHHH    Y     M MM M  O   O  ##  9   9   9   9  Ver 5 Beta
00006>     S  W W W  M    M  H    H    Y     M    M  O   O      9999    9999  Sept 2000
00007> SSSSS   W W   M    M  H    H    Y     M    M   OOO           9       9  =========
00008>                                                          9   9   9   9  # 3783815
00009>         StormWater Management HYdrologic Model             999     999  =========
00010>
00011> ********************************************************************************
00012> ********** SWMHYMD Ver/5 Beta **********
00013> *******  A single event and continuous hydrologic simulation model      *******
00014> *******       based on the principles of HYMO and its successors       *******
00015> *******            OTTHYMO-83 and OTTHYMO-89.                          *******
00016> ********************************************************************************
00017> ******* Distributed by:  J. F. Sabourin and Associates Inc.             *******
00018> *******                  Ottawa, Ontario: (613) 727-5199               *******
00019> *******                  Gatineau, Quebec: (819) 243-6858              *******
00020> *******                  E-Mail: swmhymo@jfsa.Com                      *******
00021> ********************************************************************************
00022>
00023> +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024> +++++++ Licensed user: Stantec - Ottawa - 604                            +++++++
00025> +++++++                  Ottawa                SERIAL#: 3783815          +++++++
00026> +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028> ********************************************************************************
00029> *******              ++++++ PROGRAM ARRAY DIMENSIONS ++++++               *******
00030> *******              Maximum value for ID numbers  :   10                 *******
00031> *******              Max. number of rainfall points:  52750               *******
00032> *******              Max. number of flow points    :  52750               *******
00033> ********************************************************************************
00034>
00035> *** DESCRIPTION SUMMARY TABLE HEADERS (units depend on METOUT in START) ***
00036> ***------------------------------------------------------------------------***
00037> ***    ID:  Hydrograph IDentification numbers, (1-10).                     ***
00038> ***  NHYD:  Hydrograph reference numbers, (6 digits or characters).        ***
00039> ***  AREA:  Drainage area associated with hydrograph, (sc.) or (ha.).      ***
00040> *** QPEAK:  Peak flow of simulated hydrograph, (ft^3/s) or (m^3/s).       ***
00041> *** TpeakDate_hh:mm is the date and time of the peak flow.                 ***
00042> ***   R.V.:  Runoff Volume of simulated hydrograph, (in) or (mm).         ***
00043> ***  R.C.:  Runoff Coefficient of simulated hydrograph, (ratio).          ***
00044> ***     *:  see WARNING or NOTE message printed at end of run.            ***
00045> ***    **:  ERROR message printed at end of run.                          ***
00046> ********************************************************************************
00047> ********************************************************************************
00048>
00049> ::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
00050>
00051> ********************************************************************************
00052>
00053> ********************  S U M M A R Y   O U T P U T  ********************
00054> ********************************************************************************
00055> *        DATE: 2006-11-15          TIME: 14:33:15       RUN COUNTER: 000132      *
00056> ********************************************************************************
00057> * Input  filename: C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\SMR_POST.dat             *
00058> * Output  filename: C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\SMR_POST.out           *
00059> * Summary filename: C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\SMR_POST.sum           *
00060> * User comments:                                                             *
00061> * 1: ----------------------------------------------------------------------- *
00062> * 2: ----------------------------------------------------------------------- *
00063> * 3: ----------------------------------------------------------------------- *
00064> ********************************************************************************
00065>
00066>
00067> #*******************************************************************************
00068> #  Project Name: [Jock River Reach 1 SubWatershed Study]Project #: [160400414]
00069> #  Date       : October 2006
00070> #  Modeller   : [Navin Gautam/ Original by Ana M.Paerez]
00071> #  Company    : Stantec.
00072> #  License #  :  3824306
00073> #*******************************************************************************
00074>  ** END OF RUN :   1
00075>
00076> ********************************************************************************
00077>
00078>
00079>
00080>
00081>
00082> RUN COMMAND#
00083> 002: 0001----------------------------------------------------------------
00084>       START
00085>         [TZERO =       .00 hrs on      0]
00086>         [METOUT=    2     (1=imperial, 2=metric output)]
00087>         [NSTORM=    1 ]
00088>         [NRUN  =    2 ]
00089> #*******************************************************************************
00090> #  Project Name: [Jock River Reach 1 SubWatershed Study]Project #: [160400414]
00091> #  Date       : October 2006
00092> #  Modeller   : [Navin Gautam/ Original by Ana M.Paerez]
00093> #  Company    : Stantec.
00094> #  License #  :  3824306
00095> #*******************************************************************************
00096> #----------|---------|---------|---------|---------|---------|---------|---------|
00097> 002: 0002----------------------------------------------------------------
00098>       READ STORM
00099>         Filename = storm001
00100>         Comment  = Pluie SCS de 24 hres 1:2 ans pour Ottawa CDA
00101>         [SDT=10.00: SDUR=  24.00: PTOT=  45.51]
00102> 002: 0003----------------------------------------------------------------
00103>       MODIFY STORM
00104>         [REACT=    1.00: TSHIFT= 960.00 min]
00105>         [SDT=10.00: SDUR=  40.00: PTOT=  45.51]
00106> 002: 0004----------------------------------------------------------------
00107>       DEFAULT VALUES
00108>         Filename = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\MODIFIED.VAL
00109>         ICASEdv  = 1 (read and print data)
00110>         FileTitle= File comment: [2005 City of Ottawa Sewer Design Guideline]
00111>                    PARAMETERS USED IN THE DESIGN STANDHYD COMMAND FOR OTTAWA.
00112>         Horton's infiltration equation parameters:
00113>         [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=   .00 mm]
00114>         Parameters for PERVIOUS surfaces in STANDHYD:
00115>         [IAper=    4.67 mm] [LGP=40.00 m] [MNP=  .250]
00116>         Parameters for IMPERVIOUS surfaces in STANDHYD:
00117>         [IAimp=    1.57 mm] [CLI=  1.50]    [MNI=  .013]
00118>         Parameters used in NASHYD:
00119>         [Ia=   2.50 mm] [N= 3.00]
00120> 002: 0005----------------------------------------------------------------
00121>       COMPUTE API
00122>         [APIini= 50.00:  APIkdy=  .8500:  APIkdt=  .9989]
00123>         [APImax= 80.12:  APIavg= 56.74:  APImin= 44.87]
00124> #*******************************************************************************
00125> #
00126> #                 JOCK RIVER REACH 1 SUBWATERSHED STUDY DISCRETIZED MODEL
00127> #                          PROPOSED CONDITIONS DESIGN STORM MODEL (SUMMER)
00128> #
00129> # Version: Draft Final Report, October 2006
00130> # Revision History
00131> # -Draft Interim Condition Report, Nov. 2005
00132> #*******************************************************************************
00133> # Assumptions
00134> # - All catchments are assumed to be developed except S-1, S-2, and SW1a
00135> # - SWM facilities are modeled
00136> # - Rating curves were estimated based on existing reports and modeling for the
00137> #   proposed SWM facilities
00138> # - The rating curve for the existing Kennedy Burnett SWM Facility was obtained
00139> #   the Urban Runoff Treatment in the Kennedy Burnett Settling Pond (URTKBP)- R
00140> #   Municipality of Ottawa Carleton, March 1983
00141> # - River routing modeled
00142> # - River cross sections obtained from RVCA's HEC-RAS hydraulic model
00143> #----------|---------|---------|---------|---------|---------|---------|---------|
00144> # Parameters
00145> # - Design Storms: 2,5,10,25,50 &l 00yr events: 24hr SCS (DT=10min)-model compa
00146> # - Impervious area weighted based on: rural subdivision @20% urban @85%
00147> # - NRCS(SCS) CN based on landuse (airphoto) and soil type (base mapping)
00148> # - Time to peak using Uplands Method
00149> #----------|---------|---------|---------|---------|---------|---------|---------|
00150> #*******************************************************************************
00151> #Read hydrograph upstream of N2 from RVCA Jock R. floodrisk watershed modeling
00152> #*******************************************************************************
00153>  002: 0006----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00154>       READ HYD              01:S_N2     52483.01    45.789 No_date   33:50   12.75  n/a
00155>         Filename = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-S_N2.002
00156>         Comment  = N2
00157> #
00158> # Hydrograph from Node 2 routed to Node 416
00159> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
00160> #
00161>  002: 0007----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00162>       ROUTE CHANNEL      -> 01:S_N2     52483.01    45.789 No_date   33:50   12.75  n/a
00163>         [RDT=10.00] out<- 04:N_416    52483.01    44.971 No_date   36:30   12.75  n/a
00164>         [L/S/n= 2327./  .050/  .055]
00165>         [Vmx=   .575: Dmx=  2.199]
00166> #*******************************************************************************
00167> #     Catchment SW1a
00168> #     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
00169> #     - Undeveloped agricultural land
00170> #*******************************************************************************
00171>  002: 0008----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00172>       CONTINUOUS NASHYD     02:SW_1a      546.00     1.904 No_date   31:20   13.01  .286
00173>         [CN= 72.0: N= 3.00]
00174>         [Tp= 2.79: DT= 5.00]
00175>         [IaREC= 4.00: SM No= 39.75:  SMX=264.99:  SK= .010]
00176>         [InterEvent Time=  12.00]
00177>  002: 0009----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00178>       ADD HYD               04:N_416    52483.01    44.971 No_date   36:30   12.75  n/a
00179>                           + 02:SW_1a      546.00     1.904 No_date   31:20   13.01  n/a
00180>         [DT= 5.00]  SUM=  03:SN_416   53029.01    46.118 No_date   34:50   12.75  n/a
00181>  002: 0010----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00182>       SAVE HYD              03:SN_416   53029.01    46.118 No_date   34:50   12.75  n/a
00183>         fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_416.002
00184>         remark: Total Flows at Highway 416
00185> #
00186> # Hydrograph from Node 416 routed to Node at Okeefe drain
00187> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
00188> #
00189>  002: 0011----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00190>       ROUTE CHANNEL      -> 03:SN_416  53029.01    46.118 No_date   34:50   12.75  n/a
00191>         [RDT= 5.00] out<- 01:N_OK     53029.01    46.108 No_date   34:45   12.75  n/a
00192>         [L/S/n=  497./  .302/  .055]
00193>         [Vmx=x  1.185: Dmx=  1.869]
00194> #*******************************************************************************
00195> #     Catchment OKEEFE
00196> #     - To O'Keefe drain (north of the Jock)
00197> #     - Developed with assumed 43% imp.
00198> #*******************************************************************************
00199>  002: 0012----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00200>       CONTINUOUS STANDHYD02: OKEEFE    448.00    13.801 No_date   28:15   25.18  .553
00201>         [XIMP=.43: TIMP=.43]
00202>         [LOSS= 2 : CN= 77.0]
00203>         [Pervious      area: IAper= 4.67: SLPP=  .50: LGP=   40. : MNP=.250: SCP=    .0]
00204>         [Impervious    area: IAimp= 1.57: SLPI=  .50: LGI=1728. : MNI=.013: SCI=    .0]
00205>         [IaRECimp=   4.00: IaRECper=   4.00]
00206>         [SM No= 31.15:  SMX=207.66:  SK= .010]
00207> #*******************************************************************************
00208> #     Okeefe Pond
00209> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
00210> #     and a ratio of the catchment area to the West Clarke pond rating curve
00211> #     from the MSS for the next coordinates
00212> #*******************************************************************************
00213>  002: 0013----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00214>       ROUTE RESERVOIR -> 02:OKEEFE    448.00    13.801 No_date   28:15   25.18  n/a
00215>         [RDT= 5.00] out<- 04:P_OKE    116.46       .200 No_date   27:45   25.18  n/a
00216>                         overflow <= 09:ok-OVF     331.54    13.458 No_date   28:20   25.18  n/a
00217>       [MxStOkEed=.1720E+01,  Tot.Ov Vol =.8349E+01,  N-Ov=     2,  Tot.Dur.Ov=   13.hrs]
00218>  002: 0014----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00219>       ADD HYD               01:N_OK     53029.01    46.108 No_date   34:45   12.75  n/a
00220>                           + 04:P_OKE    116.46       .200 No_date   27:45   25.18  n/a
00221>                           + 09:ok-OVF   331.54    13.458 No_date   28:20   25.18  n/a
00222>         [DT= 5.00]  SUM=  03:SN_OK    53477.02    46.839 No_date   34:45   12.85  n/a
00223>  002: 0015----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00224>       SAVE HYD              03:SN_OK    53477.02    46.839 No_date   34:45   12.85  n/a
00225>         fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_OK.002
00226>         remark: Total Flows at Okeefe drain
00227> #
00228> # Hydrograph from Node Okeefe routed to Node at Foster Drain
00229> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
00230> #
00231>  002: 0016----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00232>       ROUTE CHANNEL      -> 03:SN_OK   53477.02    46.839 No_date   34:45   12.85  n/a
00233>         [RDT= 5.00] out<- 01:N_FO     53477.02    46.817 No_date   34:50   12.85  n/a
00234>         [L/S/n= 1183./  .076/  .035]
00235>         [Vmx=x  1.826: Dmx=  .010]
00236> #*******************************************************************************
00237> #     Catchment FOSTER
00238> #     - To Foster ditch (north of the Jock)
00239> #     - Partially developed (medium density); remaining agricultural
00240> #*******************************************************************************
00241>  002: 0017----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00242>       CONTINUOUS STANDHYD02: FOSTER    373.00    14.534 No_date   28:15   28.56  .628
00243>         [XIMP=.55: TIMP=.55]
00244>         [LOSS= 2 : CN= 74.0]
00245>         [Pervious      area: IAper= 4.67: SLPP=  .50: LGP=   40. : MNP=.250: SCP=    .0]
00246>         [Impervious    area: IAimp= 1.57: SLPI=  .50: LGI=1577. : MNI=.013: SCI=    .0]
00247>         [IaRECimp=   4.00: IaRECper=   4.00]
00248>         [SM No= 36.67:  SMX=244.49:  SK= .010]
00249> #*******************************************************************************
00250> #     Foster Pond
00251> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
00252> #     and a ratio of the catchment area to the West Clarke pond rating curve
00253> #     from the MSS for the next coordinates
00254> #*******************************************************************************
00255>  002: 0018----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00256>       ROUTE RESERVOIR -> 02:FOSTER    373.00    14.534 No_date   28:15   28.56  n/a
00257>         [RDT= 5.00] out<- 04:P_FOS     102.35       .200 No_date   27:35   28.56  n/a
00258>                         overflow <= 09:FO-OVF     270.65    14.097 No_date   28:20   28.56  n/a
00259>       [MxStOkEed=.1720E+01,  Tot.Ov Vol =.7731E+01,  N-Ov=     3,  Tot.Dur.Ov=   13.hrs]
00260>  002: 0019----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00261>       ADD HYD               01:N_FO     53477.02    46.817 No_date   34:50   12.85  n/a
00262>                           + 04:P_FOS     102.35       .200 No_date   27:35   28.56  n/a
00263>                           + 09:FO-OVF   270.65    14.097 No_date   28:20   28.56  n/a
00264>         [DT= 5.00]  SUM=  03:SN_FO    53850.02    47.455 No_date   34:50   12.96  n/a
00265>  002: 0020----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00266>       SAVE HYD              03:SN_FO    53850.02    47.455 No_date   34:50   12.96  n/a
00267>         fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_FO.002
00268>         remark: Total Flows at Foster Drain
00269> #
00270> # Hydrograph from Node Foster routed to Node at Cedarview Road
00271> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
00272> #
00273>  002: 0021----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00274>       ROUTE CHANNEL      -> 03:SN_FO   53850.02    47.455 No_date   34:50   12.96  n/a
00275>         [RDT= 5.00] out<- 01:N_CE     53850.02    47.455 No_date   34:50   12.96  n/a
00276>         [L/S/n=  159./  .082/  .035]
00277>         [Vmx=x  3.197: Dmx=  .002]
00278> #*******************************************************************************
00279> #     Catchment S-1
00280> #     - To Jock River (north and south of Jock)
00281> #     - Primarily agricultural fields; portion of sand quarry
00282> #*******************************************************************************
00283>  002: 0022----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00284>       CONTINUOUS NASHYD  02: S-1       245.00     1.962 No_date   29:10   14.83  .326
00285>         [CN= 77.0: N= 3.00]
00286>         [Tp= 1.10: DT= 5.00]
00287>         [IaREC= 4.00:  SM No= 31.15:  SMX=207.66:  SK= .010]
00288>         [InterEvent Time=  12.00]
00289>  002: 0023----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00290>       ADD HYD               01:N_CE     53850.02    47.455 No_date   34:50   12.96  n/a
00291>                           + 02:S-1        245.00     1.962 No_date   29:10   14.83  n/a
00292>         [DT= 5.00]  SUM=  03:SN_CE    54095.02    47.809 No_date   34:50   12.97  n/a
00293>  002: 0024----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00294>       SAVE HYD              03:SN_CE    54095.02    47.809 No_date   34:50   12.97  n/a
00295>         fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_CE.002
00296>         remark: Total Flows at Cedarview Road
00297> #
00298> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
00299> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
00300> #
00301>  002: 0025----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00302>       ROUTE CHANNEL      -> 03:SN_CE   54095.02    47.809 No_date   34:50   12.97  n/a
00303>         [RDT= 5.00] out<- 01:N_CLAR    54095.02    47.793 No_date   35:00   12.97  n/a
00304>         [L/S/n=  825./  .010/  .035]
00305>         [Vmx=x  1.282: Dmx=  .001]
00306> #*******************************************************************************
00307> #     Catchment W_CLAR
00308> #     - To West Clarke Drain (south of the Jock)
00309> #     - Subdivision with 43% imp. as per Barrhaven South MSS
00310> #*******************************************************************************
00311>  002: 0026----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00312>       CONTINUOUS STANDHYD02: W_CLAR    243.00    10.023 No_date   28:05   24.81  .545
00313>         [XIMP=.43: TIMP=.43]
00314>         [LOSS= 2 : CN= 75.0]
00315>         [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=   40. : MNP=.250: SCP=    .0]
00316>         [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1273. : MNI=.013: SCI=    .0]
00317>         [IaRECimp=   4.00: IaRECper=   4.00]
00318>         [SM No= 33.81:  SMX=225.43:  SK= .010]
00319> #*******************************************************************************
00320> #     West Clarke Pond 2
00321> #     - Rating curve obtained from Barrhaven South MSS modeling
00322> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
00323> #*******************************************************************************
00324>  002: 0027----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00325>       ROUTE RESERVOIR -> 02:W_CLAR    243.00    10.023 No_date   28:05   24.81  n/a
00326>         [RDT= 5.00] out<- 08:MS_P2      64.85       .110 No_date   27:35   24.81  n/a
00327>                         overflow <= 09:P2-OVF     178.15     9.775 No_date   28:10   24.81  n/a
00328>       [MxStOkEed=.9597E+00,  Tot.Ov Vol =.4421E+01,  N-Ov=     2,  Tot.Dur.Ov=   13.hrs]
00329>  002: 0028----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00330>       ADD HYD               08:MS_P2      64.85       .110 No_date   27:35   24.81  n/a
00331>                           + 09:P2-OVF   178.15     9.775 No_date   28:10   24.81  n/a
00332>                           + 01:N_WC     54095.02    47.793 No_date   35:00   12.97  n/a
00333>         [DT= 5.00]  SUM=  04:SN_WC    54338.02    48.170 No_date   35:00   13.02  n/a
00334>  002: 0029----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00335>       SAVE HYD              04:SN_WC    54338.02    48.170 No_date   35:00   13.02  n/a
00336>         fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_WC.002
00337>         remark: Total Flows at West Clarke Pond Outlet
00338> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
00339> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
00340> #
00341>  002: 0030----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00342>       ROUTE CHANNEL      -> 04:SN_WC   54338.02    48.170 No_date   35:00   13.02  n/a
00343>         [RDT= 5.00] out<- 01:N_KB     54338.02    48.099 No_date   34:45   13.02  n/a
00344>         [L/S/n= 1020./  .050/  .035]
00345>         [Vmx=   .845: Dmx=  2.412]
00346> #*******************************************************************************
00347> #     Catchment KEN_BU
00348> #     - To Kennedy-Burnett SWM Facility
00349> #     - Outlets to Fraser-Clarke drain (north of the Jock)
00350> #     - Medium density residential subdivision
00351> #*******************************************************************************
00352>  002: 0031----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00353>       CONTINUOUS STANDHYD02: KEN_BU    281.00    14.015 No_date   28:05   28.17  .619
00354>         [XIMP=.55: TIMP=.55]
00355>         [LOSS= 2 : CN= 71.0]
00356>         [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=   40. : MNP=.250: SCP=    .0]
00357>         [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1369. : MNI=.013: SCI=    .0]
00358>         [IaRECimp=   4.00: IaRECper=   4.00]
00359>         [SM No= 41.38:  SMX=272.84:  SK= .010]
00360> #*******************************************************************************
00361> #     Existing Kennedy-Burnett SWM Facility
00362> #     - Rating curve obtained from URTKBP
00363> #     - Tributary Drainage Area to Pond = 160 ha
00364> #*******************************************************************************
00365>  002: 0032----------------ID NHYD------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
00366>       ROUTE RESERVOIR -> 02:KEN_BU    281.00    14.015 No_date   28:05   28.17  n/a
00367>         [RDT= 5.00] out<- 05:KEN_P     208.79     1.150 No_date   28:10   28.17  n/a
00368>                         overflow <= 06:KEN-OV      72.21    12.623 No_date   28:10   28.17  n/a
00369>       [MxStOkEed=.2330E+01,  Tot.Ov Vol =.2034E+01,  N-Ov=     4,  Tot.Dur.Ov=    2.hrs]
00370> #*******************************************************************************
00371> #     Catchment FRASER
00372> #     - To Fraser-Clarke drain (north of the Jock)
00373> #     - Developed land with assumed 43% imp.
00374> #*******************************************************************************
```

```
002: 0033----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS STANDHYD07: FRASER      90.00     2.860 No_date   28:05   20.31 .446
     [XI M=.25: TI MP=.25]
     [LOSS= 2 : CN= 80.0]
     [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=    .0]
     [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 775. : MNI=.013: SCI=    .0]
     [IaRECI mp=  4.00: IaRECper=   4.00]
     [SMN= 26.32: SMXx=175.50: SKx= .010]
002: 0034----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE RESERVOIR -> 07: FRASER      90.00     2.860 No_date   28:05   20.31  n/a
     [RDT= 5.00] out<- 08: MS_P2        28.48      .040 No_date   28:00   20.31  n/a
               overflow <= 09: P2-OVF   61.52     2.795 No_date   28:05   20.31  n/a
[MkStolked=.3600E+00,  Tot Ord Vol =.1250E+01,  N-Ord=     2;  Tot Dur Ord=    13. hrs]
002: 0035----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            05: KEN_P      208.79     1.150 No_date   28:10   28.17  n/a
                    +   06: KEN-OV      72.21    12.623 No_date   28:10   28.17  n/a
                    +   08: MS_P2       28.48      .040 No_date   28:00   20.31  n/a
                    +   09: P2-OVF      61.52     2.795 No_date   28:05   20.31  n/a
                    +   01: N_KB     54338.02    48.099 No_date   34:45   13.02  n/a
     [DT= 5.00]  SUM=  04: SN_KB     54709.01    49.195 No_date   34:45   13.11  n/a
002: 0036----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     SAVE HYD           04: SN_KB     54709.01    49.195 No_date   34:45   13.11  n/a
     fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_KB.002
     remark: Total Flows at Ken-Barnett Outlet
# Hydrograph from Node Kennedy - Barnett Drain to Node Todd Drain
# Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
#
002: 0037----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE CHANNEL      -> 04: SN_KB     54709.01    49.195 No_date   34:45   13.11  n/a
   * [RDT= 5.00] out<- 01: N_TO       54709.01    49.001 No_date   36:15   13.11  n/a
     [L/S/n=  650./ .050/.035]
     [Vmx=   .281: Dmx=   .999]
#---------------------------------------------------------------------------
     Catchment TODD
     - To Todd Drain (south of the Jock)
     - Subdivision with 43% imp. as per Barrhaven South MSS
#---------------------------------------------------------------------------
002: 0038----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS STANDHYD03: TODD       195.00     8.304 No_date   28:05   25.18 .553
     [XI M=.43: TI MP=.43]
     [LOSS= 2 : CN= 77.0]
     [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=    .0]
     [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1140. : MNI=.013: SCI=    .0]
     [IaRECI mp=  4.00: IaRECper=   4.00]
     [SMN= 31.15: SMXx=207.66: SKx= .010]
#---------------------------------------------------------------------------
     Todd Pond 3
     - Rating curve obtained from Barrhaven South MSS modeling
     - Tributary Drainage Area to MSS Pond 3 = 193 ha
#---------------------------------------------------------------------------
002: 0039----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE RESERVOIR -> 03: TODD       195.00     8.304 No_date   28:05   25.18  n/a
     [RDT= 5.00] out<- 02: MS_P3        49.78      .080 No_date   27:35   25.18  n/a
               overflow <= 09: P3-OVF   145.22     8.086 No_date   28:10   25.18  n/a
[MkStolked=.7798E+00,  Tot Ord Vol =.3657E+01,  N-Ord=     2;  Tot Dur Ord=    13. hrs]
002: 0040----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            01: N_TO       54709.01    49.001 No_date   36:15   13.11  n/a
                    +   02: MS_P3        49.78      .080 No_date   27:35   25.18  n/a
                    +   09: P3-OVF      145.22     8.086 No_date   28:10   25.18  n/a
     [DT= 5.00]  SUM=  10: SN_TO       54904.01    49.300 No_date   36:05   13.16  n/a
002: 0041----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     SAVE HYD           10: SN_TO       54904.01    49.300 No_date   36:05   13.16  n/a
     fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_TO.002
     remark: Total Flows at Todd Drain
#
# Hydrograph from Todd Drain routed to Corrigan Drain
# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
#
002: 0042----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE CHANNEL      -> 10: SN_TO       54904.01    49.300 No_date   36:05   13.16  n/a
   * [RDT= 5.00] out<- 01: N_TO       54904.01    49.134 No_date   36:45   13.16  n/a
     [L/S/n=  280./ .033/.045]
     [Vmx=   .639: Dmx=  2.378]
#---------------------------------------------------------------------------
     Catchment CORRIG
     - To Corrigan Drain (south of the Jock)
     - Primarily Developed (medium density)
#---------------------------------------------------------------------------
002: 0043----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS STANDHYD02: CORRIG      149.00     6.811 No_date   28:05   25.84 .568
     [XI M=.45: TI MP=.45]
     [LOSS= 2 : CN= 77.0]
     [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=    .0]
     [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 997. : MNI=.013: SCI=    .0]
     [IaRECI mp=  4.00: IaRECper=   4.00]
     [SMN= 31.15: SMXx=207.66: SKx= .010]
#---------------------------------------------------------------------------
     Corrigan Pond 1
     - Rating curve obtained from Barrhaven South MSS modeling
     - Tributary Drainage Area to MSS Pond 1 = 145 ha
#---------------------------------------------------------------------------
002: 0044----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE RESERVOIR -> 02: CORRIG      149.00     6.811 No_date   28:05   25.84  n/a
     [RDT= 5.00] out<- 05: MS_P1        36.35      .060 No_date   27:25   25.84  n/a
               overflow <= 04: P1-OVF   112.65     6.599 No_date   28:10   25.84  n/a
[MkStolked=.5800E+00,  Tot Ord Vol =.2911E+01,  N-Ord=     2;  Tot Dur Ord=    13. hrs]
002: 0045----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            01: N_TO       54904.01    49.134 No_date   36:45   13.16  n/a
                    +   04: P1-OVF      112.65     6.599 No_date   28:10   25.84  n/a
                    +   05: MS_P1        36.35      .060 No_date   27:25   25.84  n/a
     [DT= 5.00]  SUM=  03: SN_CO       55053.02    49.314 No_date   36:40   13.19  n/a
002: 0046----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     SAVE HYD           03: SN_CO       55053.02    49.314 No_date   36:40   13.19  n/a
     fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_CO.002
     remark: Total Flows at Corrigan Drain
#
# Hydrograph from Corrigan Drain routed to Jockvale Road
# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
#
002: 0047----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE CHANNEL      -> 03: SN_CO       55053.02    49.314 No_date   36:40   13.19  n/a
     [RDT= 5.00] out<- 01: N_MI         55053.02    49.312 No_date   36:45   13.19  n/a
     [L/S/n=  580./ .445/.045]
     [Vmx=  1.456: Dmx=  1.227]
#---------------------------------------------------------------------------
     Catchment MILLS
     - To SWM Facility north of the Jock
     - Primarily residental development
#---------------------------------------------------------------------------
002: 0048----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS STANDHYD02: MILLS       139.00     5.455 No_date   28:05   22.75 .500
     [XI M=.38: TI MP=.38]
     [LOSS= 2 : CN= 74.0]
     [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=    .0]
     [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 963. : MNI=.013: SCI=    .0]
     [IaRECI mp=  4.00: IaRECper=   4.00]
     [SMN= 36.67: SMXx=244.49: SKx= .010]
#---------------------------------------------------------------------------
     Chapman Mills SWM Pond
     - Rating curve obtained from CCL hydraulic modeling
#---------------------------------------------------------------------------
002: 0049----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE RESERVOIR -> 02: MILLS       139.00     5.455 No_date   28:05   22.75  n/a
     [RDT= 5.00] out<- 05: MILL_P       139.00     1.760 No_date   28:45   22.75  n/a
               overflow <= 04: MIL-OV       .00      .000 No_date    0:00     .00  n/a
[MkStolked=.1123E+01,  Tot Ord Vol =.0000E+00,  N-Ord=     0;  Tot Dur Ord=     0. hrs]
002: 0050----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            01: N_MI       55053.02    49.312 No_date   36:45   13.19  n/a
                    +   04: MIL-OV          .00      .000 No_date    0:00     .00  n/a
                    +   05: MILL_P      139.00     1.760 No_date   28:45   22.75  n/a
     [DT= 5.00]  SUM=  03: SN_MI       55192.02    49.553 No_date   36:45   13.21  n/a
002: 0051----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     SAVE HYD           03: SN_MI       55192.02    49.553 No_date   36:45   13.21  n/a
     fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_MI.002
     remark: Total Flows at Jockvale Road
#
# Hydrograph from Jockvale Road routed to Heart's Desire
# Channel X-Section obtained from RVCA Hydraulic Model - Station 689
#
002: 0052----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE CHANNEL      -> 03: SN_MI       55192.02    49.553 No_date   36:45   13.21  n/a
     [RDT= 5.00] out<- 01: N_DE         55192.02    49.452 No_date   37:30   13.21  n/a
     [L/S/n=  1962./ .223/.045]
     [Vmx=   .940: Dmx=   .050]
#---------------------------------------------------------------------------
     Catchment DESIRE
     - To Jock River (north of the Jock)
     - Rural-estate subdivision (Heart's Desire Community)
#---------------------------------------------------------------------------
002: 0053----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS STANDHYD02: DESIRE      24.00      .920 No_date   28:00   19.26 .423
     [XI M=.25: TI MP=.25]
     [LOSS= 2 : CN= 77.0]
     [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=    .0]
     [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 400. : MNI=.013: SCI=    .0]
     [IaRECI mp=  4.00: IaRECper=   4.00]
     [SMN= 31.15: SMXx=207.66: SKx= .010]
#---------------------------------------------------------------------------
     Catchment JOCKVA
     - To Jockvale SWM Facility
     - Residential development & golf course
#---------------------------------------------------------------------------
002: 0054----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS STANDHYD03: JOCKVA      252.00    11.718 No_date   28:05   26.85 .590
     [XI M=.50: TI MP=.50]
     [LOSS= 2 : CN= 74.0]
     [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=    .0]
     [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1296. : MNI=.013: SCI=    .0]
     [IaRECI mp=  4.00: IaRECper=   4.00]
     [SMN= 36.67: SMXx=244.49: SKx= .010]
#---------------------------------------------------------------------------
     Jockvale SWM Facility
     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
#---------------------------------------------------------------------------
002: 0055----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE RESERVOIR -> 03: JOCKVA      252.00    11.718 No_date   28:05   26.85  n/a
     [RDT= 5.00] out<- 05: JOCK_P       252.00     2.252 No_date   29:10   26.85  n/a
               overflow <= 04: JO-OVF       .00      .000 No_date    0:00     .00  n/a
[MkStolked=.3236E+01,  Tot Ord Vol =.0000E+00,  N-Ord=     0;  Tot Dur Ord=     0. hrs]
002: 0056----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            01: N_DE       55192.02    49.452 No_date   37:30   13.21  n/a
                    +   02: DESIRE       24.00      .920 No_date   28:00   19.26  n/a
                    +   04: JO-OVF        .00      .000 No_date    0:00     .00  n/a
                    +   05: JOCK_P      252.00     2.252 No_date   29:10   26.85  n/a
     [DT= 5.00]  SUM=  03: SN_DE       55468.01    49.870 No_date   37:20   13.28  n/a
002: 0057----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     SAVE HYD           03: SN_DE       55468.01    49.870 No_date   37:20   13.28  n/a
     fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_DE.002
     remark: Total Flows at Heart's Desire
#
# Hydrograph from Heart's Desire routed to Rideau River
# Channel X-Section obtained from RVCA Hydraulic Model - Station 0
#
002: 0058----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE CHANNEL      -> 03: SN_DE       55468.01    49.870 No_date   37:20   13.28  n/a
     [RDT= 5.00] out<- 01: NI           55468.01    49.870 No_date   37:25   13.28  n/a
     [L/S/n=  563./ .967/.045]
     [Vmx=  2.709: Dmx=   .015]
#---------------------------------------------------------------------------
#     Catchment S-2
#     - To Jock River (north and south)
#     - Undeveloped floodplain and river
#---------------------------------------------------------------------------
002: 0059----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS NASHYD  02: S-2         102.00     1.359 No_date   28:20   13.01 .286
     [CN= 72.0: N= 3.00]
     [Tp=  .40: DT=  5.00]
     [IaREC= 4.00:  SMN= 39.75:  SMXx=264.99:  SKx= .010]
     [InterEventTime=  12.00]
002: 0060----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            01: NI         55468.01    49.870 No_date   37:25   13.28  n/a
                    +   02: S-2          102.00     1.359 No_date   28:20   13.01  n/a
     [DT= 5.00]  SUM=  03: SN_NI       55570.01    49.967 No_date   37:25   13.28  n/a
002: 0061----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     SAVE HYD           03: SN_NI       55570.01    49.967 No_date   37:25   13.28  n/a
     fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_NI.002
     remark: Total Flows at Rideau River
** END OF RUN :    4
#
#
#
RUN: COMMAND#
005: 0001----------------------------------------------------------------------
     START
     [TZERO =     .00 hrs on         0]
     [METOUT=   2    (1=imperial, 2=metric output)]
     [NSTORM=   1 ]
     [NRUN  =   5 ]
#---------------------------------------------------------------------------
#  Project Name: [Jock River Reach 1 SubWatershed Study]Project #: [160400414]
#  Date        : October 2006
#  Modeller    : [Navin Gautam/ Original by Ana MPaerez]
#  Company     : Stantec.
#  License #   : 3824306
#---------------------------------------------------------------------------
005: 0002----------------------------------------------------------------------
     READ STORM
     Filename = storm 001
     Comment  = Pluie SCS de 24 hres 1:5 ans pour Ottawa CDA
     [SDT=10.00: SDUR=  24.00: PTOT=  57.12]
005: 0003----------------------------------------------------------------------
     MODIFY STORM
     [RFACT=   1.00: TSHIFT= 960.00 mn]
     [SDT=10.00: SDUR=  40.00: PTOT=  57.12]
005: 0004----------------------------------------------------------------------
     DEFAULT VALUES
     Filename = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\MODIFIED.VAL
     ICASEdv  = 1 (read and print data)
     FileTitle= File comment: [2005 City of Ottawa Sewer Design Guideline]
                PARAMETERS USED IN THE DESIGN STANDHYD COMMAND FOR OTTAWA\
     Horton's infiltration equation parameters:
     [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=  .00 mm]
     Parameters for PERVIOUS surfaces in STANDHYD:
     [IAper=   4.67 mm] [LGP=40.00 m] [MNP= .250]
     Parameters for IMPERVIOUS surfaces in STANDHYD:
     [IAimp=   1.57 mm] [CLI= 1.50]   [MNI= .013]
     Parameters used in NASHYD:
     [Ia=   2.50 mm] [N= 3.00]
005: 0005----------------------------------------------------------------------
     COMPUTE API
     [APIini= 50.00: APIkdy= .8500: APIkdt= .9989]
     [APImax= 90.83: APIavg= 60.09: APImin= 44.87]
#---------------------------------------------------------------------------
#                 JOCK RIVER REACH 1 SUBWATERSHED STUDY DISCRETIZED MODEL
#                        PROPOSED CONDITIONS DESIGN STORM MODEL (SUMMER)
#---------------------------------------------------------------------------
# Version: Draft Final Report, October 2006
# Revision History
# - Draft Interim Condition Report, Nov. 2005
#---------------------------------------------------------------------------
# Assumptions
# - All catchments are assumed to be developed except S-1, S-2, and SW1a
# - SWM facilities are modeled
# - Rating curves were estimated based on existing reports and modeling for the
#   proposed SWM facilities
# - The rating curve for the existing Kennedy Burnett SWM Facility was obtained
#   the Urban Runoff Treatment in the Kennedy Burnett Settling Pond (URTKBP) - R
#   Municipality of Ottawa Carleton, March 1983
# - River routing modeled
# - River cross sections obtained from RVCA's HEC-RAS hydraulic model
#---------|---------|---------|---------|---------|---------|---------|---------|
# Parameters
# - Design Storms: 2, 5, 10, 25, 50 &l 00yr events: 24hr SCS (DT=10min)-model compa
# - Impervious area weighted based on: rural subdivision @20%, urban @85%
# - NRCS( SCS) CN based on landuse (airphoto) and soil type (base mapping)
# - Time to peak using Uplands Method
#---------|---------|---------|---------|---------|---------|---------|---------|
#---------------------------------------------------------------------------
#Read hydrograph upstream of N2 from RVCA Jock R. floodrisk watershed modeling
#---------------------------------------------------------------------------
005: 0006----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     READ HYD           01: S_N2       52483.01    66.413 No_date   33:10   18.30  n/a
     Filename = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-S_N2.005
     Comment  = N2
#
# Hydrograph from Node 2 routed to Node 416
# Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
#
005: 0007----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE CHANNEL      -> 01: S_N2        52483.01    66.413 No_date   33:10   18.30  n/a
     [RDT=10.00] out<- 04: N_416        52483.01    65.031 No_date   34:30   18.30  n/a
     [L/S/n= 2327./ .050/.055]
     [Vmx=   .655: Dmx=  2.644]
#---------------------------------------------------------------------------
#     Catchment SW1a
#     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
#     - Undeveloped agricultural land
#---------------------------------------------------------------------------
005: 0008----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS NASHYD  02: SW_1a        546.00     3.042 No_date   31:15   18.99 .332
     [CN= 72.0: N= 3.00]
     [Tp= 2.79: DT=  5.00]
     [IaREC= 4.00:  SMN= 39.75:  SMXx=264.99:  SKx= .010]
     [InterEventTime=  12.00]
005: 0009----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            04: N_416      52483.01    65.031 No_date   34:30   18.30  n/a
                    +   02: SW_1a        546.00     3.042 No_date   31:15   18.99  n/a
     [DT= 5.00]  SUM=  03: SN_416      53029.01    67.141 No_date   34:10   18.30  n/a
005: 0010----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     SAVE HYD           03: SN_416      53029.01    67.141 No_date   34:10   18.30  n/a
     fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_416.005
     remark: Total Flows at Highway 416
#
# Hydrograph from Node 416 routed to Node at Okeefe drain
# Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
#
005: 0011----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE CHANNEL      -> 03: SN_416      53029.01    67.141 No_date   34:10   18.30  n/a
     [RDT= 5.00] out<- 01: N_OK         53029.01    67.140 No_date   34:10   18.30  n/a
     [L/S/n=  497./ .302/.055]
     [Vmx=  1.349: Dmx=  2.239]
#---------------------------------------------------------------------------
#     Catchment OKEEFE
#     - To O'Keefe drain (north of the Jock)
#     - Developed with assumed 43% imp.
#---------------------------------------------------------------------------
005: 0012----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     CONTINUOUS STANDHYD02: OKEEFE      448.00    19.045 No_date   28:15   34.02 .596
     [XI M=.43: TI MP=.43]
     [LOSS= 2 : CN= 77.0]
     [Pervious      area: IAper= 4.67: SLPP=  .50: LGP=  40. : MNP=.250: SCP=    .0]
     [Impervious    area: IAimp= 1.57: SLPI=  .50: LGI=1728. : MNI=.013: SCI=    .0]
     [IaRECI mp=  4.00: IaRECper=   4.00]
     [SMN= 31.15: SMXx=207.66: SKx= .010]
#---------------------------------------------------------------------------
#     Okeefe Pond
#     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
#   and a ratio of the catchment area to the West Clarke pond rating curve
#     from the MSS for the next coordinates
#---------------------------------------------------------------------------
005: 0013----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ROUTE RESERVOIR -> 02: OKEEFE      448.00    19.045 No_date   28:15   34.02  n/a
     [RDT= 5.00] out<- 04: P_OKE        88.43      .200 No_date   27:00   34.02  n/a
               overflow <= 09: ok-OVF   359.57    18.683 No_date   28:20   34.02  n/a
[MkStolked=.1720E+01,  Tot Ord Vol =.1223E+02,  N-Ord=     2;  Tot Dur Ord=    14. hrs]
005: 0014----------ID NHYD-------AREA----QPEAK TpeakDate_hh:mm----R.V.-R.C.-
     ADD HYD            01: N_OK       53029.01    67.140 No_date   34:10   18.30  n/a
                    +   04: P_OKE        88.43      .200 No_date   27:00   34.02  n/a
```

```
00749>                    +  09: ok- OVF    359.57    18.683 No_date    28:20    34.02   n/a
00750>          [ DT= 5.00]  SUM=  03: SN_OK   53477.01    68.150 No_date    34:05    18.44   n/a
00751> 005: 0015-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00752>          SAVE HYD          03: SN_OK   53477.01    68.150 No_date    34:05    18.44   n/a
00753>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_OK 005
00754>          remark: Total Flows at Okeefe Drain
00755> #
00756> # Hydrograph from Node Okeefe routed to Node at Foster Drain
00757> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6215
00758> #
00759>  005: 0016-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00760>          ROUTE CHANNEL     -> 03: SN_OK   53477.01    68.150 No_date    34:05    18.44   n/a
00761>          [ RDT= 5.00]  out <-  01: N_FO   53477.01    68.124 No_date    34:20    18.44   n/a
00762>          [ L/ S/ n= 1183. / . 076/ . 035]
00763>          [ Vmax= 1. 826: Dmax= . 015]
00764> #*****************************************************************************
00765> #     Catchment FOSTER
00766> #     - To Foster ditch (north of the Jock)
00767> #     - Partially developed (medium density); remining agricultural
00768> #*****************************************************************************
00769>  005: 0017-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00770>          CONTI NUOUS STANDHYD02: FOSTER     373.00    20.654 No_date    28:10    37.71 . 660
00771>          [ XI M= . 55: TI MP= . 55]
00772>          [ LOSS= 2 : CN= 74. 0]
00773>          [ Pervious      area: I Aper= 4. 67: SLPP= . 50: LGP=  40. : MNP= . 250: SCP=    . 0]
00774>          [ Impervious    area: I Aimp= 1. 57: SLPI = . 50: LGI = 1577. : MNI = . 013: SCI =    . 0]
00775>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
00776>          [ SMN= 36. 67:  SMAX= 244. 49:  SK= . 010]
00777> #*****************************************************************************
00778> #     Foster Pond
00779> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
00780> #       and a ratio of the catchment area to the West Clarke pond rating curve
00781> #       from the MSS for the next coordinates
00782> #*****************************************************************************
00783>  005: 0018-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00784>          ROUTE RESERVOI R -> 02: FOSTER     373.00    20.654 No_date    28:10    37.71   n/a
00785>          [ RDT= 5.00]  out <-  04: P_FOS      79.61      . 200 No_date    26:45    37.71   n/a
00786>                    overflow <= 09: FO- OVF    293.39    20.155 No_date    28:15    37.71   n/a
00787>          [ MxSt oRed= . 1720E+02,  Tot Or Vol =. 1106E+02,  N- Or = 2,  Tot Dur Or =  14. hrs]
00788>  005: 0019-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00789>          ADD HYD           01: N_FO   53477.01    68.124 No_date    34:20    18.44   n/a
00790>                    +  04: P_FOS      79.61      . 200 No_date    26:45    37.71   n/a
00791>                    +  09: FO- OVF    293.39    20.155 No_date    28:15    37.71   n/a
00792>          [ DT= 5.00]  SUM=  03: SN_FO   53850.01    68.977 No_date    34:20    18.57   n/a
00793>  005: 0020-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00794>          SAVE HYD          03: SN_FO   53850.01    68.977 No_date    34:20    18.57   n/a
00795>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_FO 005
00796>          remark: Total Flows at Foster Drain
00797> #
00798> # Hydrograph from Node Foster routed to Node at Cedarview Road
00799> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6016
00800> #
00801>  005: 0021-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00802>          ROUTE CHANNEL     -> 03: SN_FO   53850.01    68.977 No_date    34:20    18.57   n/a
00803>          [ RDT= 5.00]  out <-  01: N_CE   53850.01    68.977 No_date    34:20    18.57   n/a
00804>          [ L/ S/ n=  159. / . 082/ . 035]
00805>          [ Vmax= 3. 197: Dmax=  . 003]
00806> #*****************************************************************************
00807> #     Catchment S- 1
00808> #     - To Jock River (north and south of Jock)
00809> #     - Primarily agricultural fields; portion of sand quarry
00810> #*****************************************************************************
00811>  005: 0022-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00812>          CONTI NUOUS NASHYD  02: S- 1       245.00     3. 163 No_date    29:10    21. 69 . 380
00813>          [ CN= 77. 0:  N= 3. 00]
00814>          [ Tp=  1. 10: DT= 5. 00]
00815>          [ I aREC= 4. 00:  SMN= 31. 15:  SMAX= 207. 66:  SK= . 010]
00816>          [ I nterEvent Time=  12. 00]
00817>  005: 0023-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00818>          ADD HYD           01: N_CE   53850.01    68.977 No_date    34:20    18.57   n/a
00819>                    +  02: S- 1       245.00     3. 163 No_date    29:10    21. 69   n/a
00820>          [ DT= 5. 00]  SUM=  03: SN_CE   54095.01    69. 514 No_date    34:15    18. 58   n/a
00821>  005: 0024-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00822>          SAVE HYD          03: SN_CE   54095.01    69. 514 No_date    34:15    18. 58   n/a
00823>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_CE 005
00824>          remark: Total Flows at Cedarview Road
00825> #
00826> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
00827> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5002
00828> #
00829>  005: 0025-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00830>          ROUTE CHANNEL     -> 03: SN_CE   54095.01    69. 514 No_date    34:15    18. 58   n/a
00831>          [ RDT= 5.00]  out <-  01: N_WC   54095.01    69. 495 No_date    34:25    18. 58   n/a
00832>          [ L/ S/ n=  825. / . 010/ . 035]
00833>          [ Vmax= 1. 282: Dmax=  . 001]
00834> #*****************************************************************************
00835> #     Catchment W_CLAR
00836> #     - To West Clarke Drain (south of the Jock)
00837> #     - Subdivision with 43% imp. as per Barrhaven South MSS
00838> #*****************************************************************************
00839>  005: 0026-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00840>          CONTI NUOUS STANDHYD02: W_CLAR     243.00    13. 629 No_date    28:05    33. 48 . 586
00841>          [ XI M= . 43: TI MP= . 43]
00842>          [ LOSS= 2 : CN= 75. 0]
00843>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
00844>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 1273. : MNI = . 013: SCI =    . 0]
00845>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
00846>          [ SMN= 31. 81:  SMAX= 225. 43:  SK= . 010]
00847> #*****************************************************************************
00848> #     West Clarke Pond 2
00849> #     - Rating curve obtained from Barrhaven South MSS modeling
00850> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
00851> #*****************************************************************************
00852>  005: 0027-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00853>          ROUTE RESERVOI R -> 02: W_CLAR     243.00    13. 629 No_date    28:05    33. 48   n/a
00854>          [ RDT= 5.00]  out <-  08: MS_P2      49.32      . 110 No_date    26:50    33. 48   n/a
00855>                    overflow <= 09: P2- OVF    193. 68    13. 346 No_date    28:10    33. 48   n/a
00856>          [ MxSt oRed= . 9598E+00,  Tot Or Vol =. 6484E+01,  N- Or = 2,  Tot Dur Or =  14. hrs]
00857>  005: 0028-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00858>          ADD HYD           08: MS_P2      49.32      . 110 No_date    26:50    33. 48   n/a
00859>                    +  09: P2- OVF    193. 68    13. 346 No_date    28:10    33. 48   n/a
00860>                    +  01: N_WC   54095.01    69. 495 No_date    34:25    18. 58   n/a
00861>          [ DT= 5. 00]  SUM=  04: SN_WC   54338.01    70. 010 No_date    34:25    18. 65   n/a
00862>  005: 0029-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00863>          SAVE HYD          04: SN_WC   54338.01    70. 010 No_date    34:25    18. 65   n/a
00864>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_WC 005
00865>          remark: Total Flows at West Clarke Pond Outlet
00866> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
00867> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
00868> #
00869>  005: 0030-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00870>          ROUTE CHANNEL     -> 04: SN_WC   54338.01    70. 010 No_date    34:25    18. 65   n/a
00871>          [ RDT= 5.00]  out <-  01: N_KB   54338.01    69. 990 No_date    34:30    18. 65   n/a
00872>          [ L/ S/ n= 1020. / . 050/ . 035]
00873>          [ Vmax=  . 946: Dmax= 2. 860]
00874> #*****************************************************************************
00875> #     Catchment KEN_BU
00876> #     - To Kennedy- Burnett SWM Facility
00877> #     - Outlets to Fraser- Clarke drain (north of the Jock)
00878> #     - Medium density residential subdivision
00879> #*****************************************************************************
00880>  005: 0031-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00881>          CONTI NUOUS STANDHYD02: KEN_BU     281.00    18. 799 No_date    28:05    37. 13 . 650
00882>          [ XI M= . 55: TI MP= . 55]
00883>          [ LOSS= 2 : CN= 71. 0]
00884>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
00885>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 1369. : MNI = . 013: SCI =    . 0]
00886>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
00887>          [ SMN= 41. 38:  SMAX= 275. 84:  SK= . 010]
00888> #*****************************************************************************
00889> #   Existing Kennedy- Burnett SWM Facility
00890> #     - Rating curve obtained from URTKBP
00891> #     - Tributary Drainage Area to Pond = 160 ha
00892> #*****************************************************************************
00893>  005: 0032-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00894>          ROUTE RESERVOI R -> 02: KEN_BU     281.00    18. 799 No_date    28:05    37. 13   n/a
00895>          [ RDT= 5.00]  out <-  05: KEN_P      180.29      1. 150 No_date    28:05    37. 13   n/a
00896>                    overflow <= 06: KEN- OV    100.71    17. 309 No_date    28:10    37. 13   n/a
00897>          [ MxSt oRed= . 2330E+01,  Tot Or Vol =. 3739E+01,  N- Or = 4,  Tot Dur Or =  3. hrs]
00898> #*****************************************************************************
00899> #     Catchment FRASER
00900> #     - To Fraser- Clarke drain (north of the Jock)
00901> #     - Developed land with assumed 43% imp.
00902> #*****************************************************************************
00903>  005: 0033-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00904>          CONTI NUOUS STANDHYD07: FRASER      90.00     4. 131 No_date    28:05    28. 74 . 503
00905>          [ XI M= . 25: TI MP= . 25]
00906>          [ LOSS= 2 : CN= 80. 0]
00907>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
00908>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI =  775. : MNI = . 013: SCI =    . 0]
00909>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
00910>          [ SMN= 26. 32:  SMAX= 175. 50:  SK= . 010]
00911>  005: 0034-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00912>          ROUTE RESERVOI R -> 07: FRASER      90.00     4. 131 No_date    28:05    28. 74   n/a
00913>          [ RDT= 5.00]  out <-  08: MS_P2      20.53      . 040 No_date    27:45    28. 74   n/a
00914>                    overflow <= 09: P2- OVF    69. 47     4. 019 No_date    28:05    28. 74   n/a
00915>          [ MxSt oRed= . 3600E+00,  Tot Or Vol =. 1997E+01,  N- Or = 2,  Tot Dur Or =  13. hrs]
00916>  005: 0035-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00917>          ADD HYD           05: KEN_P      180.29      1. 150 No_date    28:05    37. 13   n/a
00918>                    +  06: KEN- OV    100.71    17. 309 No_date    28:10    37. 13   n/a
00919>                    +  08: MS_P2      20.53      . 040 No_date    27:45    28. 74   n/a
00920>                    +  09: P2- OVF    69. 47     4. 019 No_date    28:05    28. 74   n/a
00921>                    +  01: N_KB   54338.01    69. 990 No_date    34:30    18. 65   n/a
00922>          [ DT= 5. 00]  SUM=  04: SN_KB   54709.01    71. 220 No_date    34:30    18. 76   n/a
00923>  005: 0036-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00924>          SAVE HYD          04: SN_KB   54709.01    71. 220 No_date    34:30    18. 76   n/a
00925>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_KB. 005
00926>          remark: Total Flows at Ken- Burnett Outlet
00927> # Hydrograph from Node Kennedy - Burnett Drain to Node Todd Drain
00928> # Channel X- Section obtained from RVCA Hydraulic Model - Station 3633
00929> #
00930>  005: 0037-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00931>          ROUTE CHANNEL     -> 04: SN_KB   54709.01    71. 220 No_date    34:30    18. 76   n/a
00932>  *       [ RDT= 5.00]  out <-  01: N_TO   54709.01    70. 805 No_date    35:15    18. 76   n/a
00933>          [ L/ S/ n=  650. / . 050/ . 035]
00934>          [ Vmax=  . 281: Dmax=  . 999]
00935> #*****************************************************************************

00936> #     Catchment TODD
00937> #     - To Todd Drain (south of the Jock)
00938> #     - Subdivision with 43% imp. as per Barrhaven South MSS
00939> #*****************************************************************************
00940>  005: 0038-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00941>          CONTI NUOUS STANDHYD03: TODD       195.00    11. 301 No_date    28:05    34. 02 . 596
00942>          [ XI M= . 43: TI MP= . 43]
00943>          [ LOSS= 2 : CN= 77. 0]
00944>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
00945>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 1140. : MNI = . 013: SCI =    . 0]
00946>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
00947>          [ SMN= 31. 15:  SMAX= 207. 66:  SK= . 010]
00948> #*****************************************************************************
00949> #     Todd Pond 3
00950> #     - Rating curve obtained from Barrhaven South MSS modeling
00951> #     - Tributary Drainage Area to MSS Pond 3 = 193 ha
00952> #*****************************************************************************
00953>  005: 0039-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00954>          ROUTE RESERVOI R -> 03: TODD       195.00    11. 301 No_date    28:05    34. 02   n/a
00955>          [ RDT= 5.00]  out <-  02: MS_P3      37.74      . 080 No_date    26:50    34. 02   n/a
00956>                    overflow <= 09: P3- OVF    157. 26    11. 047 No_date    28:10    34. 02   n/a
00957>          [ MxSt oRed= . 7800E+00,  Tot Or Vol =. 5350E+01,  N- Or = 2,  Tot Dur Or =  14. hrs]
00958>  005: 0040-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00959>          ADD HYD           01: N_TO   54709.01    70. 805 No_date    35:15    18. 76   n/a
00960>                    +  02: MS_P3      37.74      . 080 No_date    26:50    34. 02   n/a
00961>                    +  09: P3- OVF    157. 26    11. 047 No_date    28:10    34. 02   n/a
00962>          [ DT= 5. 00]  SUM=  10: SN_TO   54904.01    71. 226 No_date    35:15    18. 82   n/a
00963>  005: 0041-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00964>          SAVE HYD          10: SN_TO   54904.01    71. 226 No_date    35:15    18. 82   n/a
00965>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_TO. 005
00966>          remark: Total Flows at Todd Drain
00967> #
00968> # Hydrograph from Todd Drain routed to Corrigan Drain
00969> # Channel X- Section obtained from RVCA Hydraulic Model - Station 2462
00970> #
00971>  005: 0042-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00972>          ROUTE CHANNEL     -> 10: SN_TO   54904.01    71. 226 No_date    35:15    18. 82   n/a
00973>  *       [ RDT= 5.00]  out <-  01: N_TO   54904.01    71. 106 No_date    35:40    18. 82   n/a
00974>          [ L/ S/ n=  280. / . 033/ . 045]
00975>          [ Vmax=  . 721: Dmax= 2. 885]
00976> #*****************************************************************************
00977> #     Catchment CORRIG
00978> #     - To Corrigan Drain (south of the Jock)
00979> #     - Primarily Developed (medium density)
00980> #*****************************************************************************
00981>  005: 0043-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00982>          CONTI NUOUS STANDHYD02: CORRI G     149.00     9. 766 No_date    28:05    34. 78 . 609
00983>          [ XI M= . 45: TI MP= . 45]
00984>          [ LOSS= 2 : CN= 77. 0]
00985>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
00986>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 997. : MNI = . 013: SCI =    . 0]
00987>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
00988>          [ SMN= 31. 15:  SMAX= 207. 66:  SK= . 010]
00989> #*****************************************************************************
00990> #     Corrigan Pond 1
00991> #     - Rating curve obtained from Barrhaven South MSS modeling
00992> #     - Tributary Drainage Area to MSS Pond 1 = 145 ha
00993> #*****************************************************************************
00994>  005: 0044-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
00995>          ROUTE RESERVOI R -> 02: CORRI G     149.00     9. 766 No_date    28:05    34. 78   n/a
00996>          [ RDT= 5.00]  out <-  05: MS_P1      27. 65      . 060 No_date    26:30    34. 78   n/a
00997>                    overflow <= 04: P1- OVF    121. 35     9. 684 No_date    28:05    34. 78   n/a
00998>          [ MxSt oRed= . 5790E+00,  Tot Or Vol =. 4220E+01,  N- Or = 3,  Tot Dur Or =  14. hrs]
00999>  005: 0045-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01000>          ADD HYD           01: N_TO   54904.01    71. 106 No_date    35:40    18. 82   n/a
01001>                    +  04: P1- OVF    121. 35     9. 684 No_date    28:05    34. 78   n/a
01002>                    +  05: MS_P1      27. 65      . 060 No_date    26:30    34. 78   n/a
01003>          [ DT= 5. 00]  SUM=  03: SN_CO   55053. 00    71. 431 No_date    35:40    18. 86   n/a
01004>  005: 0046-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01005>          SAVE HYD          03: SN_CO   55053. 00    71. 431 No_date    35:40    18. 86   n/a
01006>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_CO. 005
01007>          remark: Total Flows at Corrigan Drain
01008> #
01009> # Hydrograph from Corrigan Drain routed to Jockvale Road
01010> # Channel X- Section obtained from RVCA Hydraulic Model - Station 2462
01011> #
01012>  005: 0047-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01013>          ROUTE CHANNEL     -> 03: SN_CO   55053. 00    71. 431 No_date    35:40    18. 86   n/a
01014>          [ RDT= 5.00]  out <-  01: N_M     55053. 00    71. 427 No_date    35:45    18. 86   n/a
01015>          [ L/ S/ n=  580. / . 445/ . 045]
01016>          [ Vmax= 1. 654: Dmax= 1. 485]
01017> #*****************************************************************************
01018> #     Catchment M_LLS
01019> #     - To SWM Facility north of the Jock
01020> #     - Primarily residential development
01021> #*****************************************************************************
01022>  005: 0048-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01023>          CONTI NUOUS STANDHYD02: M_LLS      139.00     7. 873 No_date    28:05    30. 98 . 542
01024>          [ XI M= . 38: TI MP= . 38]
01025>          [ LOSS= 2 : CN= 74. 0]
01026>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01027>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 963. : MNI = . 013: SCI =    . 0]
01028>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
01029>          [ SMN= 36. 67:  SMAX= 244. 49:  SK= . 010]
01030> #*****************************************************************************
01031> #     Chapman Mills SWM Pond
01032> #     - Rating curve obtained from CCL hydraulic modeling
01033> #*****************************************************************************
01034>  005: 0049-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01035>          ROUTE RESERVOI R -> 02: M_LLS      139.00     7. 873 No_date    28:05    30. 98   n/a
01036>          [ RDT= 5.00]  out <-  05: M_LL_P     139.00     2. 516 No_date    28:40    30. 98   n/a
01037>                    overflow <= 04: M_L- OV       . 00      . 000 No_date     0:00      . 00   n/a
01038>          [ MxSt oRed= . 1506E+01,  Tot Or Vol =. 0000E+00,  N- Or = 0,  Tot Dur Or =  0. hrs]
01039>  005: 0050-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01040>          ADD HYD           01: N_M    55053. 00    71. 427 No_date    35:45    18. 86   n/a
01041>                    +  04: M_L- OV       . 00      . 000 No_date     0:00      . 00   n/a
01042>                    +  05: M_LL_P     139.00     2. 516 No_date    28:40    30. 98   n/a
01043>          [ DT= 5. 00]  SUM=  03: SN_M    55192. 00    71. 786 No_date    35:45    18. 89   n/a
01044>  005: 0051-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01045>          SAVE HYD          03: SN_M    55192. 00    71. 786 No_date    35:45    18. 89   n/a
01046>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_M. 005
01047>          remark: Total Flows at Jockvale Road
01048> #
01049> # Hydrograph from Jockvale Road routed to Heart's Desire
01050> # Channel X- Section obtained from RVCA Hydraulic Model - Station 689
01051> #
01052>  005: 0052-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01053>          ROUTE CHANNEL     -> 03: SN_M    55192. 00    71. 786 No_date    35:45    18. 89   n/a
01054>          [ RDT= 5.00]  out <-  01: N_DE    55192. 00    71. 488 No_date    36:20    18. 89   n/a
01055>          [ L/ S/ n= 1962. / . 223/ . 045]
01056>          [ Vmax=  . 940: Dmax=  . 073]
01057> #*****************************************************************************
01058> #     Catchment DESIRE
01059> #     - To Jock River (north of the Jock)
01060> #     - Rural- estate subdivision (Heart's Desire Community)
01061> #*****************************************************************************
01062>  005: 0053-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01063>          CONTI NUOUS STANDHYD02: DESIRE      24.00     1. 289 No_date    28:00    27. 22 . 477
01064>          [ XI M= . 25: TI MP= . 25]
01065>          [ LOSS= 2 : CN= 77. 0]
01066>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01067>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI =  400. : MNI = . 013: SCI =    . 0]
01068>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
01069>          [ SMN= 31. 15:  SMAX= 207. 66:  SK= . 010]
01070> #*****************************************************************************
01071> #     Catchment JOCKVA
01072> #     - To Jockvale SWM Facility
01073> #     - Residential development & golf course
01074> #*****************************************************************************
01075>  005: 0054-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01076>          CONTI NUOUS STANDHYD03: JOCKVA     252.00    15. 852 No_date    28:05    35. 73 . 626
01077>          [ XI M= . 50: TI MP= . 50]
01078>          [ LOSS= 2 : CN= 74. 0]
01079>          [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01080>          [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 1296. : MNI = . 013: SCI =    . 0]
01081>          [ I aREC mp=   4. 00: I aREC per=   4. 00]
01082>          [ SMN= 36. 67:  SMAX= 244. 49:  SK= . 010]
01083> #*****************************************************************************
01084> #     Jockvale SWM Facility
01085> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
01086> #*****************************************************************************
01087>  005: 0055-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01088>          ROUTE RESERVOI R -> 03: JOCKVA     252.00    15. 852 No_date    28:05    35. 73   n/a
01089>          [ RDT= 5.00]  out <-  05: JOCK_P     252.00     4. 332 No_date    28:50    35. 73   n/a
01090>                    overflow <= 04: JO- OVF       . 00      . 000 No_date     0:00      . 00   n/a
01091>          [ MxSt oRed= . 3962E+01,  Tot Or Vol =. 0000E+00,  N- Or = 0,  Tot Dur Or =  0. hrs]
01092>  005: 0056-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01093>          ADD HYD           01: N_DE    55192. 00    71. 488 No_date    36:20    18. 89   n/a
01094>                    +  02: DESIRE      24.00     1. 289 No_date    28:00    27. 22   n/a
01095>                    +  04: JO- OVF        . 00      . 000 No_date     0:00      . 00   n/a
01096>                    +  05: JOCK_P     252.00     4. 332 No_date    28:50    35. 73   n/a
01097>          [ DT= 5. 00]  SUM=  03: SN_DE   55468.00    72. 143 No_date    36:15    18. 97   n/a
01098>  005: 0057-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01099>          SAVE HYD          03: SN_DE   55468.00    72. 143 No_date    36:15    18. 97   n/a
01100>          fname : C: \ Navi n\ OCTOBE~ 1\ CONTI N~ 1\ SMR_POST\ H- SN_DE. 005
01101>          remark: Total Flows at Heart's Desire
01102> #
01103> # Hydrograph from Heart's Desire routed to Rideau River
01104> # Channel X- Section obtained from RVCA Hydraulic Model - Station 0
01105> #
01106>  005: 0058-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01107>          ROUTE CHANNEL     -> 03: SN_DE   55468.00    72. 143 No_date    36:15    18. 97   n/a
01108>          [ RDT= 5.00]  out <-  01: NI      55468.00    72. 141 No_date    36:20    18. 97   n/a
01109>          [ L/ S/ n=  563. / . 967/ . 045]
01110>          [ Vmax= 2. 709: Dmax=  . 022]
01111> #*****************************************************************************
01112> #     Catchment S- 2
01113> #     - To Jock River (north and south)
01114> #     - Undeveloped floodplain and river
01115> #*****************************************************************************
01116>  005: 0059-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
01117>          CONTI NUOUS NASHYD  02: S- 2       102.00     2. 237 No_date    28:20    18. 99 . 332
01118>          [ CN= 72. 0:  N= 3. 00]
01119>          [ Tp=  . 40: DT= 5. 00]
01120>          [ I aREC= 4. 00:  SMN= 39. 75:  SMAX= 264. 99:  SK= . 010]
01121>          [ I nterEvent Time=  12. 00]
01122>  005: 0060-----------------I D: N HYD------AREA----QPEAK TpeakDate_hh: mm----R. V. - R. C. -
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01123>       ADD HYD                 01: NI       55468.00    72.141 No_date    36:20    18.97   n/a
01124>                             +  02: S-2        102.00     2.237 No_date    28:20    18.99   n/a
01125>       [ DT= 5.00]  SUM=  03: SN_NI   55570.00    72.311 No_date    36:20    18.97   n/a
01126> 005: 0061----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01127>       SAVE HYD                03: SN_NI   55570.00    72.311 No_date    36:20    18.97   n/a
01128>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_NI. 005
01129>       remark: Total Flows at Rideau River
01130>  ** END OF RUN :  24
01131>
01132> *****************************************************************************************
01133>
01134>
01135>
01136>
01137>
01138> RUN COMMAND#
01139> 025: 0001----------------------------------------------------------------------------------
01140>       START
01141>       [ TZERO =    .00 hrs on          0]
01142>       [ METOUT=    2     (1=imperial, 2=metric output)]
01143>       [ NSTORM=    1 ]
01144>       [ NRUN  =   25 ]
01145> *****************************************************************************************
01146> #  Project Name:  [Jock River Reach 1 SubWatershed Study]Project #: [160400414]
01147> #  Date       :  October 2006
01148> #  Modeller   :  [Navin Gautam/ Original by Ana M.Paerez]
01149> #  Company    :  Stantec.
01150> #  License #  :  3824306
01151> *****************************************************************************************
01152> #-------------------------------------------------------------------------------------------|
01153> 025: 0002----------------------------------------------------------------------------------
01154>       READ STORM
01155>       Filename = storm001
01156>       Comment  = Pluie SCS de 24 hres 1:25 ans pour Ottawa CDA
01157>       [ SDT=10.00: SDUR=  24.00: PTOT=  74.39]
01158> 025: 0003----------------------------------------------------------------------------------
01159>       MODIFY STORM
01160>       [ REACT=   1.00: TSHIFT= 960.00 min]
01161>       [ SDT=10.00: SDUR=  40.00: PTOT=  74.39]
01162> 025: 0004----------------------------------------------------------------------------------
01163>       DEFAULT VALUES
01164>       FileName = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\MODIFIED.VAL
01165>       ICASEdv  = 1 (read and print data)
01166>       FileTitle= File comment: [2005 City of Ottawa Sewer Design Guideline]
01167>                  PARAMETERS USED IN THE DESIGN STANDHYD COMMAND FOR OTTAWA.
01168>       Horton's infiltration equation parameters:
01169>       [ Fo= 76.20 mm/hr] [ Fc=13.20 mm/hr] [ DCAY= 4.14 /hr] [ F=   .00 mm]
01170>       Parameters for PERVIOUS surfaces in STANDHYD:
01171>       [ IAper=   4.67 mm] [ LGP=40.00 m] [ MNP=  .250]
01172>       Parameters for IMPERVIOUS surfaces in STANDHYD:
01173>       [ IAimp=   1.57 mm] [ CLI=  1.50]    [ MNI=  .013]
01174>       Parameters used in NASHYD:
01175>       [ Ia=    2.50 mm] [ N=  3.00]
01176> 025: 0005----------------------------------------------------------------------------------
01177>       COMPUTE API
01178>       [ APIini= 50.00:  APIkdy=  .8500:  APIkdt=  .9989]
01179>       [ APImax=106.76:  APIave= 65.09:  APImin= 44.87]
01180> *****************************************************************************************
01181> #
01182> #                 JOCK RIVER REACH 1 SUBWATERSHED STUDY DISCRETIZED MODEL
01183> #                          PROPOSED CONDITIONS DESIGN STORM MODEL (SUMMER)
01184> #
01185> # Version: Draft Final Report, October 2006
01186> # Revision History
01187> # - Draft Interim Condition Report, Nov. 2005
01188> *****************************************************************************************
01189> # Assumptions
01190> # - All catchments are assumed to be developed except S-1, S-2, and SW1a
01191> # - SWM facilities are modeled
01192> # - Rating curves were estimated based on existing reports and modeling for the
01193> #   proposed SWM facilities
01194> # - The rating curve for the existing Kennedy Burnett SWM Facility was obtained
01195> #   the Urban Runoff Treatment in the Kennedy Burnett Settling Pond (URTKBP)- R
01196> #   Municipality of Ottawa Carleton, March 1983
01197> # - River routing modeled
01198> # - River cross sections obtained from RVCA's HEC-RAS hydraulic model
01199> #-------------------|-----------------------------------------------------------------------|
01200> # Parameters
01201> # - Design Storms: 2, 5, 10, 25, 50 &I 00yr events: 24hr SCS (DT=10min)-model compa
01202> # - Impervious area weighted based on: rural subdivision @20% urban @85%
01203> # - NRCS( SCS) CN based on landuse (airphoto) and soil type (base mapping)
01204> # - Time to peak using Uplands Method
01205> #-------------------|-----------------------------------------------------------------------|
01206> *****************************************************************************************
01207> #Read hydrograph upstream of N2 from RVCA Jock R. floodrisk watershed modeling
01208> *****************************************************************************************
01209> 025: 0006----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01210>       READ HYD                01: S_N2     52483.01   104.834 No_date    33:00    28.63   n/a
01211>       Filename = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-S_N2. 025
01212>       Comment  = N2
01213> #
01214> # Hydrograph from Node 2 routed to Node 416
01215> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
01216> #
01217> 025: 0007----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01218>       ROUTE CHANNEL    -> 01: S_N2     52483.01   104.834 No_date    33:00    28.63   n/a
01219>       [ RDT= 10.00]  out<-  04: N_416   52483.01   102.143 No_date    33:50    28.63   n/a
01220>       [ L/ S/ n=  2327./  .050/  .055]
01221>       [ Vmx=   .752: Dmx=  3.287]
01222> *****************************************************************************************
01223> #     Catchment SW1a
01224> #     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
01225> #     - Undeveloped agricultural land
01226> *****************************************************************************************
01227> 025: 0008----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01228>       CONTINUOUS NASHYD  02: SW_1a      546.00     5.203 No_date    31:15    30.12   .405
01229>       [ CN=  72.0: N=  3.00]
01230>       [ Tp=  2.79: DT=  5.00]
01231>       [ IaREC=  4.00: SM N=  39.75: SMXx=264.99: SK=  .010]
01232>       [ InterEventTime=  12.00]
01233> 025: 0009----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01234>       ADD HYD                 04: N_416   52483.01   102.143 No_date    33:50    28.63   n/a
01235>                             +  02: SW_1a      546.00     5.203 No_date    31:15    30.12   n/a
01236>       [ DT= 5.00]  SUM=  03: SN_416  53029.01   106.064 No_date    33:40    28.65   n/a
01237> 025: 0010----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01238>       SAVE HYD                03: SN_416  53029.01   106.064 No_date    33:40    28.65   n/a
01239>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_416. 025
01240>       remark: Total Flows at Highway 416
01241> #
01242> # Hydrograph from Node 416 routed to Node at Okeefe drain
01243> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
01244> #
01245> 025: 0011----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01246>       ROUTE CHANNEL    -> 03: SN_416  53029.01   106.064 No_date    33:40    28.65   n/a
01247>       [ RDT= 5.00]  out<-  01: N_OK   53029.01   106.047 No_date    33:45    28.65   n/a
01248>       [ L/ S/ n=   497./  .302/  .055]
01249>       [ Vmx=  1.563: Dmx=  2.795]
01250> *****************************************************************************************
01251> #     Catchment OKEEFE
01252> #     - To O'Keefe drain (north of the Jock)
01253> #     - Developed w/ assumed 43% imp.
01254> *****************************************************************************************
01255> 025: 0012----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01256>       CONTINUOUS STANDHYD02: OKEEFE    448.00    29.427 No_date    28:10    48.46   .651
01257>       [ XI M=  .43: TI M=  .43]
01258>       [ LOSS=  2 : CN=  77.0]
01259>       [ Pervious      area: I Aper=  4.67: SLPP=  .50: LGP=  40. : MNP=  .250: SCP=    .0]
01260>       [ Impervious    area: I Aimp=  1.57: SLPI=  .50: LGI=1728. : MNI=  .013: SCI=    .0]
01261>       [ IaREC imp=   4.00: IaRECper=   4.00]
01262>       [ SM N=  31.15:  SMXx=207.66: SK=  .010]
01263> *****************************************************************************************
01264> #     Okeefe Pond
01265> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
01266> #       and a ratio of the catchment area to the West Clarke pond rating curve
01267> #       from the MSS for the next coordinates
01268> *****************************************************************************************
01269> 025: 0013----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01270>       ROUTE RESERVOIR  -> 02: OKEEFE    448.00    29.427 No_date    28:10    48.46   n/a
01271>       [ RDT= 5.00]  out<-  04: P_OKE     63.85       .200 No_date    25:40    48.46   n/a
01272>                    overflow <= 09: ok-OVF    384.15    29.155 No_date    28:15    48.46   n/a
01273>       [ MsStOkEnd=.1719E+01,  TotOrVol=.1862E+02,  N-Or=     2,  TotDurOr=    15.hrs]
01274> 025: 0014----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01275>       ADD HYD                 01: N_OK    53029.01   106.047 No_date    33:45    28.65   n/a
01276>                             +  04: P_OKE      63.85       .200 No_date    25:40    48.46   n/a
01277>                             +  09: ok-OVF     384.15    29.155 No_date    28:15    48.46   n/a
01278>       [ DT= 5.00]  SUM=  03: SN_OK   53477.01   107.487 No_date    33:45    28.82   n/a
01279> 025: 0015----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01280>       SAVE HYD                03: SN_OK   53477.01   107.487 No_date    33:45    28.82   n/a
01281>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_OK. 025
01282>       remark: Total Flows at Okeefe Drain
01283> #
01284> # Hydrograph from Node Okeefe routed to Node at Foster Drain
01285> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
01286> #
01287> 025: 0016----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01288>       ROUTE CHANNEL    -> 03: SN_OK   53477.01   107.487 No_date    33:45    28.82   n/a
01289>       [ RDT= 5.00]  out<-  01: N_FO   53477.01   107.402 No_date    33:50    28.82   n/a
01290>       [ L/ S/ n=  1183./  .076/  .035]
01291>       [ Vmx=  1.826: Dmx=   .024]
01292> *****************************************************************************************
01293> #     Catchment FOSTER
01294> #     - To Foster ditch (north of the Jock)
01295> #     - Partially developed (medium density); remining agricultural
01296> *****************************************************************************************
01297> 025: 0017----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01298>       CONTINUOUS STANDHYD02: FOSTER    373.00    29.559 No_date    28:10    52.35   .704
01299>       [ XI M=  .55: TI M=  .55]
01300>       [ LOSS=  2 : CN=  74.0]
01301>       [ Pervious      area: I Aper=  4.67: SLPP=  .50: LGP=  40. : MNP=  .250: SCP=    .0]
01302>       [ Impervious    area: I Aimp=  1.57: SLPI=  .50: LGI=1577. : MNI=  .013: SCI=    .0]
01303>       [ IaREC imp=   4.00: IaRECper=   4.00]
01304>       [ SM N=  36.67:  SMXx=244.49: SK=  .010]
01305> *****************************************************************************************
01306> #     Foster Pond
01307> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
01308> #       and a ratio of the catchment area to the West Clarke pond rating curve
01309> #       from the MSS for the next coordinates
01310> *****************************************************************************************
01311> 025: 0018----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01312>       ROUTE RESERVOIR  -> 02: FOSTER    373.00    29.559 No_date    28:10    52.35   n/a
01313>       [ RDT= 5.00]  out<-  04: P_FOS      59.03       .200 No_date    25:25    52.35   n/a
01314>                    overflow <= 09: FO-OVF    313.97    28.947 No_date    28:15    52.35   n/a
01315>       [ MsStOkEnd=.1720E+01,  TotOrVol=.1644E+02,  N-Or=     2,  TotDurOr=    15.hrs]
01316> 025: 0019----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01317>       ADD HYD                 01: N_FO    53477.01   107.402 No_date    33:50    28.82   n/a
01318>                             +  04: P_FOS      59.03       .200 No_date    25:25    52.35   n/a
01319>                             +  09: FO-OVF     313.97    28.947 No_date    28:15    52.35   n/a
01320>       [ DT= 5.00]  SUM=  03: SN_FO   53850.01   108.602 No_date    33:50    28.98   n/a
01321> 025: 0020----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01322>       SAVE HYD                03: SN_FO   53850.01   108.602 No_date    33:50    28.98   n/a
01323>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_FO. 025
01324>       remark: Total Flows at Foster Drain
01325> #
01326> # Hydrograph from Node Foster routed to Node at Cedarview Road
01327> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
01328> #
01329> 025: 0021----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01330>       ROUTE CHANNEL    -> 03: SN_FO   53850.01   108.602 No_date    33:50    28.98   n/a
01331>       [ RDT= 5.00]  out<-  01: N_CE   53850.01   108.600 No_date    33:50    28.98   n/a
01332>       [ L/ S/ n=   159./  .082/  .035]
01333>       [ Vmx=  3.197: Dmx=   .004]
01334> *****************************************************************************************
01335> #     Catchment S-1
01336> #     - To Jock River (north and south of Jock)
01337> #     - Primarily agricultural fields; portion of sand quarry
01338> *****************************************************************************************
01339> 025: 0022----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01340>       CONTINUOUS NASHYD  02: S-1         245.00     5.406 No_date    29:10    34.13   .459
01341>       [ CN=  77.0: N=  3.00]
01342>       [ Tp=  1.10: DT=  5.00]
01343>       [ IaREC=  4.00: SM N=  31.15: SMXx=207.66: SK=  .010]
01344>       [ InterEventTime=  12.00]
01345> 025: 0023----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01346>       ADD HYD                 01: N_CE    53850.01   108.600 No_date    33:50    28.98   n/a
01347>                             +  02: S-1        245.00     5.406 No_date    29:10    34.13   n/a
01348>       [ DT= 5.00]  SUM=  03: SN_CE   54095.01   109.498 No_date    33:50    29.00   n/a
01349> 025: 0024----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01350>       SAVE HYD                03: SN_CE   54095.01   109.498 No_date    33:50    29.00   n/a
01351>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_CE. 025
01352>       remark: Total Flows at Cedarview Road
01353> #
01354> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
01355> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
01356> #
01357> 025: 0025----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01358>       ROUTE CHANNEL    -> 03: SN_CE   54095.01   109.498 No_date    33:50    29.00   n/a
01359>       [ RDT= 5.00]  out<-  01: N_WC   54095.01   109.438 No_date    34:00    29.00   n/a
01360>       [ L/ S/ n=   825./  .010/  .035]
01361>       [ Vmx=  1.282: Dmx=   .002]
01362> *****************************************************************************************
01363> #     Catchment W_CLAR
01364> #     - To West Clarke Drain (south of the Jock)
01365> #     - Subdivision with 43% imp. as per Barrhaven South MSS
01366> *****************************************************************************************
01367> 025: 0026----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01368>       CONTINUOUS STANDHYD02: W_CLAR    243.00    19.911 No_date    28:05    47.67   .641
01369>       [ XI M=  .43: TI M=  .43]
01370>       [ LOSS=  2 : CN=  75.0]
01371>       [ Pervious      area: I Aper=  4.67: SLPP=  1.00: LGP=  40. : MNP=  .250: SCP=    .0]
01372>       [ Impervious    area: I Aimp=  1.57: SLPI=  1.00: LGI=1273. : MNI=  .013: SCI=    .0]
01373>       [ IaREC imp=   4.00: IaRECper=   4.00]
01374>       [ SM N=  33.81:  SMXx=225.43: SK=  .010]
01375> *****************************************************************************************
01376> #     West Clarke Pond 2
01377> #     - Rating curve obtained from Barrhaven South MSS modeling
01378> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
01379> *****************************************************************************************
01380> 025: 0027----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01381>       ROUTE RESERVOIR  -> 02: W_CLAR    243.00    19.911 No_date    28:05    47.67   n/a
01382>       [ RDT= 5.00]  out<-  08: MS_P2      35.65       .110 No_date    25:40    47.67   n/a
01383>                    overflow <= 09: P2-OVF    207.35    19.630 No_date    28:10    47.67   n/a
01384>       [ MsStOkEnd=.9599E+00,  TotOrVol=.9884E+01,  N-Or=     1,  TotDurOr=    15.hrs]
01385> 025: 0028----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01386>       ADD HYD                 08: MS_P2      35.65       .110 No_date    25:40    47.67   n/a
01387>                             +  09: P2-OVF     207.35    19.630 No_date    28:10    47.67   n/a
01388>                             +  01: N_WC     54095.01   109.438 No_date    34:00    29.00   n/a
01389>       [ DT= 5.00]  SUM=  04: SN_WC   54338.01   110.177 No_date    34:00    29.09   n/a
01390> 025: 0029----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01391>       SAVE HYD                04: SN_WC   54338.01   110.177 No_date    34:00    29.09   n/a
01392>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_WC. 025
01393>       remark: Total Flows at West Clarke Pond Outlet
01394> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
01395> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
01396> #
01397> 025: 0030----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01398>       ROUTE CHANNEL    -> 04: SN_WC   54338.01   110.177 No_date    34:00    29.09   n/a
01399>       [ RDT= 5.00]  out<-  01: N_KB   54338.01   109.789 No_date    34:10    29.09   n/a
01400>       [ L/ S/ n=  1020./  .050/  .035]
01401>       [ Vmx=  1.079: Dmx=  3.520]
01402> *****************************************************************************************
01403> #     Catchment KEN_BU
01404> #     - To Kennedy-Burnett SWM Facility
01405> #     - Outlets to Fraser-Clarke drain (north of the Jock)
01406> #     - Medium density residential subdivision
01407> *****************************************************************************************
01408> 025: 0031----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01409>       CONTINUOUS STANDHYD02: KEN_BU    281.00    26.648 No_date    28:05    51.46   .692
01410>       [ XI M=  .55: TI M=  .55]
01411>       [ LOSS=  2 : CN=  71.0]
01412>       [ Pervious      area: I Aper=  4.67: SLPP=  1.00: LGP=  40. : MNP=  .250: SCP=    .0]
01413>       [ Impervious    area: I Aimp=  1.57: SLPI=  1.00: LGI=1369. : MNI=  .013: SCI=    .0]
01414>       [ IaREC imp=   4.00: IaRECper=   4.00]
01415>       [ SM N=  41.38:  SMXx=275.84: SK=  .010]
01416> *****************************************************************************************
01417> #     Existing Kennedy-Burnett SWM Facility
01418> #     - Rating curve obtained from URTKBP
01419> #     - Tributary Drainage Area to Pond = 160 ha
01420> *****************************************************************************************
01421> 025: 0032----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01422>       ROUTE RESERVOIR  -> 02: KEN_BU    281.00    26.648 No_date    28:05    51.46   n/a
01423>       [ RDT= 5.00]  out<-  05: KEN_P     150.13       .150 No_date    27:55    51.46   n/a
01424>                    overflow <= 06: KEN-OV    130.87    25.019 No_date    28:10    51.46   n/a
01425>       [ MsStOkEnd=.2329E+01,  TotOrVol=.6735E+01,  N-Or=     3,  TotDurOr=     4.hrs]
01426> *****************************************************************************************
01427> #     Catchment FRASER
01428> #     - To Fraser-Clarke drain (north of the Jock)
01429> #     - Developed land with assumed 43% imp.
01430> *****************************************************************************************
01431> 025: 0033----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01432>       CONTINUOUS STANDHYD07: FRASER     90.00     6.649 No_date    28:05    42.95   .577
01433>       [ XI M=  .25: TI M=  .25]
01434>       [ LOSS=  2 : CN=  80.0]
01435>       [ Pervious      area: I Aper=  4.67: SLPP=  1.00: LGP=  40. : MNP=  .250: SCP=    .0]
01436>       [ Impervious    area: I Aimp=  1.57: SLPI=  1.00: LGI=  775. : MNI=  .013: SCI=    .0]
01437>       [ IaREC imp=   4.00: IaRECper=   4.00]
01438>       [ SM N=  26.32:  SMXx=175.50: SK=  .010]
01439> 025: 0034----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01440>       ROUTE RESERVOIR  -> 07: FRASER     90.00     6.649 No_date    28:05    42.95   n/a
01441>       [ RDT= 5.00]  out<-  08: MS_P2      14.10       .040 No_date    27:05    42.95   n/a
01442>                    overflow <= 09: P2-OVF     75.90     6.399 No_date    28:05    42.95   n/a
01443>       [ MsStOkEnd=.3606E+00,  TotOrVol=.3260E+01,  N-Or=     2,  TotDurOr=    14.hrs]
01444> 025: 0035----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01445>       ADD HYD                 05: KEN_P     150.13       .150 No_date    27:55    51.46   n/a
01446>                             +  06: KEN-OV     130.87    25.019 No_date    28:10    51.46   n/a
01447>                             +  08: MS_P2       14.10       .040 No_date    27:05    42.95   n/a
01448>                             +  09: P2-OVF      75.90     6.399 No_date    28:05    42.95   n/a
01449>                             +  01: N_KB     54338.01   109.789 No_date    34:10    29.09   n/a
01450>       [ DT= 5.00]  SUM=  04: SN_KB   54709.01   111.172 No_date    34:10    29.22   n/a
01451> 025: 0036----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01452>       SAVE HYD                04: SN_KB   54709.01   111.172 No_date    34:10    29.22   n/a
01453>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_KB. 025
01454>       remark: Total Flows at Ken-Burnett Outlet
01455> # Hydrograph from Node Kennedy - Burnett Drain to Node Todd Drain
01456> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
01457> #
01458> 025: 0037----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01459>       ROUTE CHANNEL    -> 04: SN_KB   54709.01   111.172 No_date    34:10    29.22   n/a
01460> *     [ RDT= 5.00]  out<-  01: N_TO   54709.01   110.460 No_date    35:00    29.22   n/a
01461>       [ L/ S/ n=   650./  .050/  .035]
01462>       [ Vmx=   .280: Dmx=   .998]
01463> *****************************************************************************************
01464> #     Catchment TODD
01465> #     - To Todd Drain (south of the Jock)
01466> #     - Subdivision with 43% imp. as per Barrhaven South MSS
01467> *****************************************************************************************
01468> 025: 0038----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01469>       CONTINUOUS STANDHYD03: TODD      195.00    17.774 No_date    28:05    48.46   .651
01470>       [ XI M=  .43: TI M=  .43]
01471>       [ LOSS=  2 : CN=  77.0]
01472>       [ Pervious      area: I Aper=  4.67: SLPP=  1.00: LGP=  40. : MNP=  .250: SCP=    .0]
01473>       [ Impervious    area: I Aimp=  1.57: SLPI=  1.00: LGI=1140. : MNI=  .013: SCI=    .0]
01474>       [ IaREC imp=   4.00: IaRECper=   4.00]
01475>       [ SM N=  31.15:  SMXx=207.66: SK=  .010]
01476> *****************************************************************************************
01477> #     Todd Pond 3
01478> #     - Rating curve obtained from Barrhaven South MSS modeling
01479> #     - Tributary Drainage Area to MSS Pond 3 = 193 ha
01480> *****************************************************************************************
01481> 025: 0039----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01482>       ROUTE RESERVOIR  -> 03: TODD      195.00    17.774 No_date    28:05    48.46   n/a
01483>       [ RDT= 5.00]  out<-  02: MS_P3      27.18       .080 No_date    25:35    48.46   n/a
01484>                    overflow <= 09: P3-OVF     167.82    17.455 No_date    28:05    48.46   n/a
01485>       [ MsStOkEnd=.7799E+00,  TotOrVol=.8133E+01,  N-Or=     2,  TotDurOr=    15.hrs]
01486> 025: 0040----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01487>       ADD HYD                 01: N_TO    54709.01   110.460 No_date    35:00    29.22   n/a
01488>                             +  02: MS_P3      27.18       .080 No_date    25:35    48.46   n/a
01489>                             +  09: P3-OVF     167.82    17.455 No_date    28:05    48.46   n/a
01490>       [ DT= 5.00]  SUM=  10: SN_TO   54904.01   111.061 No_date    35:00    29.29   n/a
01491> 025: 0041----------------I D: NHYD------AREA----QPEAK TpeakDate_hh: mm----R. V.-R. C.-
01492>       SAVE HYD                10: SN_TO   54904.01   111.061 No_date    35:00    29.29   n/a
01493>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_TO. 025
01494>       remark: Total Flows at Todd Drain
01495> #
01496> # Hydrograph from Todd Drain routed to Corrigan Drain
```

```
01497> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
01498> #
01499> 025:0042----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01500>       ROUTE CHANNEL    -> 10:SN_TO   54904.01   111.061 No_date   35:00   29.29   n/a
01501>   *   [RDT= 5.00] out<- 01:N_TO   54904.01   110.730 No_date   35:20   29.29   n/a
01502>       [L/S/n= 280./ .033/ .045]
01503>       [Vmax= .717:Dmax= 3.588]
01504> #*************************************************************************
01505> #    Catchment CORRIG
01506> #    - To Corrigan Drain (south of the Jock)
01507> #    - Primarily Developed (medium density)
01508> #*************************************************************************
01509> 025:0043----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01510>       CONTINUOUS STANDHYD02:CORRIG   149.00    14.272 No_date   28:05   49.32 .663
01511>       [XI/M= 45:TIMP= .45]
01512>       [LOSS= 2 :CN= 77.0]
01513>       [Pervious      area: IAper= 4.67:SLPP=1.00:LGP=  40.:MNP=.250:SCP=   .0]
01514>       [Impervious    area: IAimp= 1.57:SLPI=1.00:LGI= 997.:MNI=.013:SCI=   .0]
01515>       [IaRECmp=   4.00: IaRECper=   4.00]
01516>       [SMN= 31.15: SMAX=207.66: SK= .010]
01517> #*************************************************************************
01518> #    Corrigan Pond 1
01519> #    - Rating curve obtained from Barrhaven South MSS modeling
01520> #    - Tributary drainage Area to MSS Pond 1 = 145 ha
01521> #*************************************************************************
01522> 025:0044----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01523>       ROUTE RESERVOIR  -> 02:CORRIG   149.00    14.272 No_date   28:05   49.32   n/a
01524>       [RDT= 5.00] out<- 05:MS_P1     20.01      .060 No_date   25:15   49.32   n/a
01525>                 overflow <= 04:P1-OVF   128.99    14.115 No_date   28:05   49.32   n/a
01526>       [MxStoUsed=.5798E+00, TotOrfVol=.6362E+01,  N-Orf=     3, TotDurOrf=    15.hrs]
01527> 025:0045----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01528>       ADD HYD          01:N_TO   54904.01   110.730 No_date   35:20   29.29   n/a
01529>                      + 04:P1-OVF   128.99    14.115 No_date   28:05   49.32   n/a
01530>                      + 05:MS_P1     20.01      .060 No_date   25:15   49.32   n/a
01531>       [DT= 5.00]  SUM= 03:SN_CO   55053.01   111.193 No_date   35:20   29.35   n/a
01532> 025:0046----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01533>       SAVE HYD         03:SN_CO   55053.01   111.193 No_date   35:20   29.35   n/a
01534>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_CO.025
01535>       remark: Total Flows at Corrigan Drain
01536> #
01537> # Hydrograph from Corrigan Drain routed to Jockvale Road
01538> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
01539> #
01540> 025:0047----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01541>       ROUTE CHANNEL    -> 03:SN_CO   55053.01   111.193 No_date   35:20   29.35   n/a
01542>       [RDT= 5.00] out<- 01:N_MI     55053.01   111.200 No_date   35:25   29.35   n/a
01543>       [L/S/n= 580./ .445/.045]
01544>       [Vmax= 1.965:Dmax= 1.852]
01545> #*************************************************************************
01546> #    Catchment MILLS
01547> #    - To SWM Facility north of the Jock
01548> #    - Primarily residental development
01549> #*************************************************************************
01550> 025:0048----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01551>       CONTINUOUS STANDHYD02:MILLS     139.00    11.666 No_date   28:05   44.62 .600
01552>       [XI/M= 38:TIMP=.38]
01553>       [LOSS= 2 :CN= 74.0]
01554>       [Pervious      area: IAper= 4.67:SLPP=1.00:LGP=  40.:MNP=.250:SCP=   .0]
01555>       [Impervious    area: IAimp= 1.57:SLPI=1.00:LGI= 963.:MNI=.013:SCI=   .0]
01556>       [IaRECmp=   4.00: IaRECper=   4.00]
01557>       [SMN= 36.67: SMAX=244.49: SK= .010]
01558> #*************************************************************************
01559> #    Chapman Mills SWM Pond
01560> #    - Rating curve obtained from CCL hydraulic modeling
01561> #*************************************************************************
01562> 025:0049----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01563>       ROUTE RESERVOIR  -> 02:MILLS    139.00    11.666 No_date   28:05   44.62   n/a
01564>       [RDT= 5.00] out<- 05:MILL_P     139.00     3.765 No_date   28:40   44.62   n/a
01565>                 overflow <= 04:MILL-OVF     .00      .000 No_date   0:00     .00   n/a
01566>       [MxStoUsed=.2157E+01,  TotOrfVol=.0000E+00,  N-Orf=     0, TotDurOrf=     0.hrs]
01567> 025:0050----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01568>       ADD HYD          01:N_MI     55053.01   111.200 No_date   35:25   29.35   n/a
01569>                      + 04:MIL-OVF     .00      .000 No_date   0:00     .00   n/a
01570>                      + 05:MILL_P     139.00     3.765 No_date   28:40   44.62   n/a
01571>       [DT= 5.00]  SUM= 03:SN_MI   55192.01   111.709 No_date   35:25   29.38   n/a
01572> 025:0051----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01573>       SAVE HYD         03:SN_MI   55192.01   111.709 No_date   35:25   29.38   n/a
01574>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_MI.025
01575>       remark: Total Flows at Jockvale Road
01576> #
01577> # Hydrograph from Jockvale Road routed to Heart's Desire
01578> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
01579> #
01580> 025:0052----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01581>       ROUTE CHANNEL    -> 03:SN_MI   55192.01   111.709 No_date   35:25   29.38   n/a
01582>       [RDT= 5.00] out<- 01:N_DE     55192.01   111.156 No_date   36:05   29.38   n/a
01583>       [L/S/n= 1962./ .223/.045]
01584>       [Vmax= .940:Dmax= .113]
01585> #*************************************************************************
01586> #    Catchment DESIRE
01587> #    - To Jock River (north of the Jock)
01588> #    - Rural-estate subdivision (Heart's Desire Community)
01589> #*************************************************************************
01590> 025:0053----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01591>       CONTINUOUS STANDHYD02:DESIRE     24.00     2.012 No_date   28:00   40.77 .548
01592>       [XI/M= 25:TIMP= .25]
01593>       [LOSS= 2 :CN= 77.0]
01594>       [Pervious      area: IAper= 4.67:SLPP=1.00:LGP=  40.:MNP=.250:SCP=   .0]
01595>       [Impervious    area: IAimp= 1.57:SLPI=1.00:LGI= 400.:MNI=.013:SCI=   .0]
01596>       [IaRECmp=   4.00: IaRECper=   4.00]
01597>       [SMN= 31.15: SMAX=207.66: SK= .010]
01598> #*************************************************************************
01599> #    Catchment JOCKVA
01600> #    - To Jockvale SWM Facility
01601> #    - Residential development & golf course
01602> #*************************************************************************
01603> 025:0054----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01604>       CONTINUOUS STANDHYD03:JOCKVA    252.00    22.732 No_date   28:05   50.08 .673
01605>       [XI/M= 50:TIMP= .50]
01606>       [LOSS= 2 :CN= 74.0]
01607>       [Pervious      area: IAper= 4.67:SLPP=1.00:LGP=  40.:MNP=.250:SCP=   .0]
01608>       [Impervious    area: IAimp= 1.57:SLPI=1.00:LGI=1296.:MNI=.013:SCI=   .0]
01609>       [IaRECmp=   4.00: IaRECper=   4.00]
01610>       [SMN= 36.67: SMAX=244.49: SK= .010]
01611> #*************************************************************************
01612> #    Jockvale SWM Facility
01613> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
01614> #*************************************************************************
01615> 025:0055----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01616>       ROUTE RESERVOIR  -> 03:JOCKVA    252.00    22.732 No_date   28:05   50.08   n/a
01617>       [RDT= 5.00] out<- 05:JOCK_P     252.00     8.221 No_date   28:40   50.08   n/a
01618>                 overflow <= 04:JO OVF     .00      .000 No_date   0:00     .00   n/a
01619>       [MxStoUsed=.5163E+01,  TotOrfVol=.0000E+00,  N-Orf=     0, TotDurOrf=     0.hrs]
01620> 025:0056----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01621>       ADD HYD          01:N_DE     55192.01   111.156 No_date   36:05   29.38   n/a
01622>                      + 02:DESIRE     24.00     2.012 No_date   28:00   40.77   n/a
01623>                      + 04:JO OVF     .00      .000 No_date   0:00     .00   n/a
01624>                      + 05:JOCK_P     252.00     8.221 No_date   28:40   50.08   n/a
01625>       [DT= 5.00]  SUM= 03:SN_DE   55468.00   112.074 No_date   36:00   29.48   n/a
01626> 025:0057----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01627>       SAVE HYD         03:SN_DE   55468.00   112.074 No_date   36:00   29.48   n/a
01628>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_DE.025
01629>       remark: Total Flows at Heart's Desire
01630> #
01631> # Hydrograph from Heart's Desire routed to Rideau River
01632> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
01633> #
01634> 025:0058----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01635>       ROUTE CHANNEL    -> 03:SN_DE   55468.00   112.074 No_date   36:00   29.48   n/a
01636>       [RDT= 5.00] out<- 01:NI       55468.00   112.070 No_date   36:05   29.48   n/a
01637>       [L/S/n=  563./ .967/.045]
01638>       [Vmax= 2.709:Dmax= .034]
01639> #*************************************************************************
01640> #    Catchment S-2
01641> #    - To Jock River (north and south)
01642> #    - Undeveloped floodplain and river
01643> #*************************************************************************
01644> 025:0059----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01645>       CONTINUOUS NASHYD  02:S-2      102.00     3.924 No_date   28:20   30.12 .405
01646>       [CN= 72.0:  N= 3.00]
01647>       [Tp=   .40:DT= 5.00]
01648>       [IaREC= 4.00: SMN= 39.75: SMAX=264.99: SK= .010]
01649>       [InterEventTime=  12.00]
01650> 025:0060----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01651>       ADD HYD          01:NI       55468.00   112.070 No_date   36:05   29.48   n/a
01652>                      + 02:S-2      102.00     3.924 No_date   28:20   30.12   n/a
01653>       [DT= 5.00]  SUM= 03:SN_NI   55570.01   112.351 No_date   36:05   29.48   n/a
01654> 025:0061----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01655>       SAVE HYD         03:SN_NI   55570.01   112.351 No_date   36:05   29.48   n/a
01656>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_NI.025
01657>       remark: Total Flows at Rideau River
01658>   ** END OF RUN :  99
01659>
01660> ************************************************************************
01661>
01662>
01663>
01664>
01665>
01666> RUN COMMAND#
01667> 100:0001----------------------------------------------------------------------
01668>       START
01669>       [TZERO =     .00 hrs on        0]
01670>       [METOUT=   2     (1=imperial, 2=metric output)]
01671>       [NSTORM=   1 ]
01672>       [NRUN  = 100 ]
01673> #*************************************************************************
01674> #  Project Name: [Jock River Reach 1 SubWatershed Study]Project #: [160400414]
01675> #  Date       : October 2006
01676> #  Modeller   : [Navin Gautam/ Original by Ana M Paerez]
01677> #  Company    : Stantec
01678> #  License #  : 3824306
01679> #*************************************************************************
01680> #-------------------|-----------------------------------------------------|
01681> 100:0002----------------------------------------------------------------------
01682>       READ STORM
01683>       Filename = storm001
01684>       Comment  = Pluie SCS de 24 hres 1:100 ans pour Ottawa CDA
01685>       [SDT=10.00:SDUR=  24.00:PTOT=  88.57]
01686> 100:0003----------------------------------------------------------------------
01687>       MODIFY STORM
01688>       [REFACT=  1.00:TSHIFT= 960.00 min]
01689>       [SDT=10.00:SDUR=  40.00:PTOT=  88.57]
01690> 100:0004----------------------------------------------------------------------
01691>       DEFAULT VALUES
01692>       Filename = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\MODIFIED.VAL
01693>       [CASEdv   = 1 (read and print data)
01694>       FileTitle= File comment: [2005 City of Ottawa Sewer Design Guideline]
01695>                  PARAMETERS USED IN THE DESIGN STANDHYD COMMAND FOR OTTAWA
01696>       Horton's infiltration equation parameters:
01697>       [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=   .00 mm]
01698>       Parameters for IMPERVIOUS surfaces in STANDHYD:
01699>       [IAper=   4.67 mm] [LGP=40.00 m] [MNP= .250]
01700>       Parameters for IMPERVIOUS surfaces in STANDHYD:
01701>       [IAimp=   1.57 mm] [CLI= 1.50]    [MNI= .013]
01702>       Parameters used in NASHYD:
01703>       [Ia=   2.50 mm] [N= 3.00]
01704> 100:0005----------------------------------------------------------------------
01705>       COMPUTE API
01706>       [APIini= 50.00:  APIkdy= .8500:  APIkdt= .9989]
01707>       [APImax=119.84:  APIexp= 69.19:  APIfm= 44.87]
01708> #*************************************************************************
01709> #
01710> #                  JOCK RIVER REACH 1 SUBWATERSHED STUDY DISCRETIZED MODEL
01711> #                  PROPOSED CONDITIONS DESIGN STORM MODEL (SUMMER)
01712> #
01713> # Version: Draft Final Report, October 2006
01714> # Revision History
01715> # -Draft Interim Condition Report, Nov. 2005
01716> #*************************************************************************
01717> # Assumptions
01718> # - All catchments are assumed to be developed except S-1, S-2, and SWIa
01719> # - SWM facilities are modelled
01720> # - Rating curves were estimated based on existing reports and modeling for the
01721> #   proposed SWM facilities
01722> # - The rating curve for the existing Kennedy Burnett SWM Facility was obtained
01723> #   the Urban Runoff Treatment in the Kennedy Burnett Settling Pond (URTKBP) - R
01724> #   Municipality of Ottawa Carleton, March 1983
01725> # - River routing modeled
01726> # - River cross sections obtained from RVCA's HEC-RAS hydraulic model
01727> #-------------------|-----------------------------------------------------|
01728> # Parameters
01729> # - Design Storms: 2, 5, 10, 25, 50 &l 00yr events: 24hr SCS (DT=10min)-model compa
01730> # - Impervious area weighted based on: rural subdivision @20% urban @85%
01731> # - NRCS(SCS) CN based on landuse (airphoto) and soil type (base mapping)
01732> # - Time to peak using Uplands Method
01733> #-------------------|-----------------------------------------------------|
01734> #*************************************************************************
01735> #Read hydrograph upstream of N2 from RVCA Jock R. floodrisk watershed modeling
01736> #*************************************************************************
01737> 100:0006----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01738>       READ HYD         01:S_N2     52483.01   141.853 No_date   32:50   38.75   n/a
01739>       Filename = C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-S_N2.100
01740>       Comment  = N2
01741> #
01742> # Hydrograph from Node 2 routed to Node 416
01743> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
01744> #
01745> 100:0007----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01746>       ROUTE CHANNEL    -> 01:S_N2     52483.01   141.853 No_date   32:50   38.75   n/a
01747>       [RDT=10.00] out<- 04:N_416    52483.01   137.555 No_date   33:30   38.75   n/a
01748>       [L/S/n= 2327./ .050/.055]
01749>       [Vmax=  .799:Dmax= 3.792]
01750> #*************************************************************************
01751> #    Catchment SWIa
01752> #    - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
01753> #    - Undeveloped agricultural land
01754> #*************************************************************************
01755> 100:0008----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01756>       CONTINUOUS NASHYD  02:SW_Ia      546.00     7.343 No_date   31:10   40.95 .462
01757>       [CN= 72.0:  N= 3.00]
01758>       [Tp= 2.79:DT= 5.00]
01759>       [IaREC= 4.00: SMN= 39.75: SMAX=264.99: SK= .010]
01760>       [InterEventTime=  12.00]
01761> 100:0009----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01762>       ADD HYD          04:N_416    52483.01   137.555 No_date   33:30   38.75   n/a
01763>                      + 02:SW_Ia      546.00     7.343 No_date   31:10   40.95   n/a
01764>       [DT= 5.00]  SUM= 03:SN_416   53029.01   143.235 No_date   33:30   38.77   n/a
01765> 100:0010----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01766>       SAVE HYD         03:SN_416   53029.01   143.235 No_date   33:30   38.77   n/a
01767>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_416.100
01768>       remark: Total Flows at Highway 416
01769> #
01770> # Hydrograph from Node 416 routed to Node at Okeefe drain
01771> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
01772> #
01773> 100:0011----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01774>       ROUTE CHANNEL    -> 03:SN_416   53029.01   143.235 No_date   33:30   38.77   n/a
01775>       [RDT= 5.00] out<- 01:N_OK     53029.01   143.199 No_date   33:35   38.77   n/a
01776>       [L/S/n=  497./ .302/.055]
01777>       [Vmax= 1.722:Dmax= 3.248]
01778> #*************************************************************************
01779> #    Catchment OKEEFE
01780> #    - To O'Keefe drain (north of the Jock)
01781> #    - Developed with assumed 43% imp.
01782> #*************************************************************************
01783> 100:0012----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01784>       CONTINUOUS STANDHYD02:OKEEFE    448.00    38.901 No_date   28:15   61.25 .692
01785>       [XI/M= 43:TIMP=.43]
01786>       [LOSS= 2 :CN= 77.0]
01787>       [Pervious      area: IAper= 4.67:SLPP=  .50:LGP=  40.:MNP=.250:SCP=   .0]
01788>       [Impervious    area: IAimp= 1.57:SLPI=  .50:LGI=1728.:MNI=.013:SCI=   .0]
01789>       [IaRECmp=   4.00: IaRECper=   4.00]
01790>       [SMN= 31.15: SMAX=207.66: SK= .010]
01791> #*************************************************************************
01792> #    Okeefe Pond
01793> #    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
01794> #    and a ratio of the catchment area to the West Clarke pond rating curve
01795> #      from the MSS for the next coordinates
01796> #*************************************************************************
01797> 100:0013----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01798>       ROUTE RESERVOIR  -> 02:OKEEFE   448.00    38.901 No_date   28:15   61.25   n/a
01799>       [RDT= 5.00] out<- 04:P_OKE      51.38      .200 No_date   24:45   61.25   n/a
01800>                 overflow <= 09:ok-OVF   396.62    38.659 No_date   28:15   61.25   n/a
01801>       [MxStoUsed=.1720E+01,  TotOrfVol=.2429E+02,  N-Orf=     2, TotDurOrf=    16.hrs]
01802> 100:0014----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01803>       ADD HYD          01:N_OK     53029.01   143.199 No_date   33:35   38.77   n/a
01804>                      + 04:P_OKE      51.38      .200 No_date   24:45   61.25   n/a
01805>                      + 09:ok-OVF     396.62    38.659 No_date   28:15   61.25   n/a
01806>       [DT= 5.00]  SUM= 03:SN_OK   53477.02   145.022 No_date   33:30   38.96   n/a
01807> 100:0015----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01808>       SAVE HYD         03:SN_OK    53477.02   145.022 No_date   33:30   38.96   n/a
01809>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_OK.100
01810>       remark: Total Flows at Okeefe Drain
01811> #
01812> # Hydrograph from Node Okeefe routed to Node at Foster Drain
01813> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
01814> #
01815> 100:0016----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01816>       ROUTE CHANNEL    -> 03:SN_OK    53477.02   145.022 No_date   33:30   38.96   n/a
01817>       [RDT= 5.00] out<- 01:N_FO      53477.02   144.892 No_date   33:40   38.96   n/a
01818>       [L/S/n= 1183./ .076/.035]
01819>       [Vmax= 1.826:Dmax=  .032]
01820> #*************************************************************************
01821> #    Catchment FOSTER
01822> #    - To Foster ditch (north of the Jock)
01823> #    - Partially developed (medium density); remaining agricultural
01824> #*************************************************************************
01825> 100:0017----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01826>       CONTINUOUS STANDHYD02:FOSTER     373.00    38.921 No_date   28:05   65.13 .735
01827>       [XI/M= 55:TIMP=.55]
01828>       [LOSS= 2 :CN= 74.0]
01829>       [Pervious      area: IAper= 4.67:SLPP=  .50:LGP=  40.:MNP=.250:SCP=   .0]
01830>       [Impervious    area: IAimp= 1.57:SLPI=  .50:LGI=1577.:MNI=.013:SCI=   .0]
01831>       [IaRECmp=   4.00: IaRECper=   4.00]
01832>       [SMN= 36.67: SMAX=244.49: SK= .010]
01833> #*************************************************************************
01834> #    Foster Pond
01835> #    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
01836> #    and a ratio of the catchment area to the West Clarke pond rating curve
01837> #      from the MSS for the next coordinates
01838> #*************************************************************************
01839> 100:0018----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01840>       ROUTE RESERVOIR  -> 02:FOSTER    373.00    38.921 No_date   28:05   65.13   n/a
01841>       [RDT= 5.00] out<- 04:P_FOS      48.28      .200 No_date   24:30   65.13   n/a
01842>                 overflow <= 09:FO-OVF   324.72    38.557 No_date   28:10   65.13   n/a
01843>       [MxStoUsed=.1720E+01,  TotOrfVol=.2115E+02,  N-Orf=     2, TotDurOrf=    16.hrs]
01844> 100:0019----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01845>       ADD HYD          01:N_FO     53477.02   144.892 No_date   33:40   38.96   n/a
01846>                      + 04:P_FOS      48.28      .200 No_date   24:30   65.13   n/a
01847>                      + 09:FO-OVF     324.72    38.557 No_date   28:10   65.13   n/a
01848>       [DT= 5.00]  SUM= 03:SN_FO   53850.02   146.381 No_date   33:40   39.14   n/a
01849> 100:0020----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01850>       SAVE HYD         03:SN_FO    53850.02   146.381 No_date   33:40   39.14   n/a
01851>       fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_FO.100
01852>       remark: Total Flows at Foster Drain
01853> #
01854> # Hydrograph from Node Foster routed to Node at Cedarview Road
01855> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
01856> #
01857> 100:0021----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01858>       ROUTE CHANNEL    -> 03:SN_FO    53850.02   146.381 No_date   33:40   39.14   n/a
01859>       [RDT= 5.00] out<- 01:N_CE      53850.02   146.383 No_date   33:40   39.14   n/a
01860>       [L/S/n=  159./ .082/.035]
01861>       [Vmax= 3.197:Dmax=  .006]
01862> #*************************************************************************
01863> #    Catchment S-1
01864> #    - To Jock River (north and south of Jock)
01865> #    - Primarily agricultural fields; portion of sand quarry
01866> #*************************************************************************
01867> 100:0022----------------ID:NHYD-------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01868>       CONTINUOUS NASHYD  02:S-1       245.00     7.588 No_date   29:10   45.94 .519
01869>       [CN= 77.0:  N= 3.00]
01870>       [Tp= 1.10:DT= 5.00]
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01871>          [IaREC= 4.00: SM N= 31.15: SMXx=207.66: SK= .010]
01872>          [InterEventTime= 12.00]
01873> 100:0023----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01874>       ADD HYD          01:N_CE    53850.02  146.383 No_date   33:40    39.14  n/a
01875>                      + 02:S-1       245.00    7.588 No_date   29:10    45.94  n/a
01876>          [DT= 5.00]  SUM= 03:SN_CE  54095.02  147.622 No_date   33:35    39.17  n/a
01877> 100:0024----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01878>       SAVE HYD         03:SN_CE   54095.02  147.622 No_date   33:35    39.17  n/a
01879>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_CE.100
01880>          remark: Total Flows at Cedarview Road
01881> #
01882> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
01883> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
01884> #
01885> 100:0025----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01886>       ROUTE CHANNEL    -> 03:SN_CE   54095.02  147.622 No_date   33:35    39.17  n/a
01887>          [RDT= 5.00] out<- 01:N_WC   54095.02  147.547 No_date   33:45    39.17  n/a
01888>          [L/S/m= 825./ .010/ .035]
01889>          [Vmx= 1.282: Dmx= .003]
01890> #*******************************************************************************
01891> #    Catchment W_CLAR
01892> #    - To West Clarke Drain (south of the Jock)
01893> #    - Subdivision with 43% imp. as per Barrhaven South MSS
01894> #*******************************************************************************
01895> 100:0026----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01896>       CONTINUOUS STANDHYD02:W_CLAR   243.00    27.368 No_date   28:05    60.27 .680
01897>          [XIMP= .43: TIMP= .43]
01898>          [LOSS= 2 : CN= 75.0]
01899>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
01900>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1273. : MNI=.013: SCI=   .0]
01901>          [IaRECmp=  4.00: IaRECper=  4.00]
01902>          [SM N= 33.81: SMXx=225.43: SK= .010]
01903> #*******************************************************************************
01904> #    West Clarke Pond 2
01905> #    - Rating curve obtained from Barrhaven South MSS modeling
01906> #    - Tributary Drainage Area to MSS Pond 2 = 241 ha
01907> #*******************************************************************************
01908> 100:0027----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01909>       ROUTE RESERVOIR  -> 02:W_CLAR   243.00    27.368 No_date   28:05    60.27
01910>          [RDT= 5.00] out<- 08:MS_P2     28.68     .110 No_date   24:40    60.26  n/a
01911>                      overflow <= 09:P2-OVF   214.32   26.785 No_date   28:05    60.27  n/a
01912>          [MxStOlsed=-.9600E+00, TotOrVol=-.1292E+02, N-Or=    2, TotDurOr=   16.hrs]
01913> 100:0028----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01914>       ADD HYD          08:MS_P2     28.68     .110 No_date   24:40    60.26  n/a
01915>                      + 09:P2-OVF    214.32   26.785 No_date   28:05    60.27  n/a
01916>                      + 01:N_WC    54095.02  147.547 No_date   33:45    39.17  n/a
01917>          [DT= 5.00]  SUM= 04:SN_WC  54338.02  148.477 No_date   33:45    39.27  n/a
01918> 100:0029----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01919>       SAVE HYD         04:SN_WC   54338.02  148.477 No_date   33:45    39.27  n/a
01920>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_WC.100
01921>          remark: Total Flows at West Clarke Pond Outlet
01922> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
01923> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
01924> #
01925> 100:0030----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01926>       ROUTE CHANNEL    -> 04:SN_WC   54338.02  148.477 No_date   33:45    39.27  n/a
01927>          [RDT= 5.00] out<- 01:N_KB   54338.02  147.747 No_date   33:55    39.27  n/a
01928>          [L/S/m= 1020./ .050/ .035]
01929>          [Vmx= .980: Dmx= 3.891]
01930> #*******************************************************************************
01931> #    Catchment KEN_BU
01932> #    - To Kennedy-Burnett SWM Facility
01933> #    - Outlets to Fraser-Clarke drain (north of the Jock)
01934> #    - Medium density residential subdivision
01935> #*******************************************************************************
01936> 100:0031----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01937>       CONTINUOUS STANDHYD02:KEN_BU    281.00    35.633 No_date   28:05    64.01 .723
01938>          [XIMP= .55: TIMP= .55]
01939>          [LOSS= 2 : CN= 71.0]
01940>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
01941>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1369. : MNI=.013: SCI=   .0]
01942>          [IaRECmp=  4.00: IaRECper=  4.00]
01943>          [SM N= 41.38: SMXx=275.84: SK= .010]
01944> #*******************************************************************************
01945> #    Existing Kennedy-Burnett SWM Facility
01946> #    - Rating curve obtained from URTKBP
01947> #    - Tributary Drainage Area to Pond = 160 ha
01948> #*******************************************************************************
01949> 100:0032----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01950>       ROUTE RESERVOIR  -> 02:KEN_BU    281.00    35.633 No_date   28:05    64.01  n/a
01951>          [RDT= 5.00] out<- 05:KEN_P     132.84     1.150 No_date   27:45    64.01  n/a
01952>                      overflow <= 06:KEN-OV   148.16   34.267 No_date   28:05    64.01  n/a
01953>          [MxStOlsed=-.2330E+01, TotOrVol=-.9483E+01, N-Or=    3, TotDurOr=    5.hrs]
01954> #*******************************************************************************
01955> #    Catchment FRASER
01956> #    - To Fraser-Clarke drain (north of the Jock)
01957> #    - Developed land with assumed 43% imp.
01958> #*******************************************************************************
01959> 100:0033----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01960>       CONTINUOUS STANDHYD07:FRASER     90.00     9.664 No_date   28:05    55.76 .630
01961>          [XIMP= .25: TIMP= .25]
01962>          [LOSS= 2 : CN= 80.0]
01963>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
01964>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=  775. : MNI=.013: SCI=   .0]
01965>          [IaRECmp=  4.00: IaRECper=  4.00]
01966>          [SM N= 26.32: SMXx=175.50: SK= .010]
01967> 100:0034----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01968>       ROUTE RESERVOIR  -> 07:FRASER     90.00     9.664 No_date   28:05    55.76  n/a
01969>          [RDT= 5.00] out<- 08:MS_P2     11.04      .040 No_date   26:20    55.76  n/a
01970>                      overflow <= 09:P2-OVF   78.96   9.261 No_date   28:05    55.76  n/a
01971>          [MxStOlsed=-.3599E+00, TotOrVol=-.4402E+01, N-Or=    2, TotDurOr=   14.hrs]
01972> 100:0035----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01973>       ADD HYD          05:KEN_P     132.84     1.150 No_date   27:45    64.01  n/a
01974>                      + 06:KEN-OV    148.16    34.267 No_date   28:05    64.01  n/a
01975>                      + 08:MS_P2      11.04      .040 No_date   26:20    55.76  n/a
01976>                      + 09:P2-OVF     78.96     9.261 No_date   28:05    55.76  n/a
01977>                      + 01:N_KB    54338.02  147.747 No_date   33:55    39.27  n/a
01978>          [DT= 5.00]  SUM= 04:SN_KB  54709.01  149.236 No_date   33:55    39.42  n/a
01979> 100:0036----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01980>       SAVE HYD         04:SN_KB   54709.01  149.236 No_date   33:55    39.42  n/a
01981>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_KB.100
01982>          remark: Total Flows at Ken-Burnett Outlet
01983> # Hydrograph from Node Kennedy - Burnett Drain to Node Todd Drain
01984> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
01985> #
01986> 100:0037----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01987>       ROUTE CHANNEL    -> 04:SN_KB   54709.01  149.236 No_date   33:55    39.42  n/a
01988> *     [RDT= 5.00] out<- 01:N_TO   54709.01  148.001 No_date   35:05    39.42  n/a
01989>          [L/S/m= 650./ .050/ .035]
01990>          [Vmx= .281: Dmx= .999]
01991> #*******************************************************************************
01992> #    Catchment TODD
01993> #    - To Todd Drain (south of the Jock)
01994> #    - Subdivision with 43% imp. as per Barrhaven South MSS
01995> #*******************************************************************************
01996> 100:0038----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
01997>       CONTINUOUS STANDHYD03:TODD      195.00    22.652 No_date   28:05    61.25 .692
01998>          [XIMP= .43: TIMP= .43]
01999>          [LOSS= 2 : CN= 77.0]
02000>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
02001>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1140. : MNI=.013: SCI=   .0]
02002>          [IaRECmp=  4.00: IaRECper=  4.00]
02003>          [SM N= 31.15: SMXx=207.66: SK= .010]
02004> #*******************************************************************************
02005> #    Todd Pond 3
02006> #    - Rating curve obtained from Barrhaven South MSS modeling
02007> #    - Tributary Drainage Area to MSS Pond 3 = 193 ha
02008> #*******************************************************************************
02009> 100:0039----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02010>       ROUTE RESERVOIR  -> 03:TODD      195.00    22.652 No_date   28:05    61.25  n/a
02011>          [RDT= 5.00] out<- 02:MS_P3     21.86      .080 No_date   24:40    61.25  n/a
02012>                      overflow <= 09:P3-OVF   173.14   22.231 No_date   28:05    61.25  n/a
02013>          [MxStOlsed=-.7796E+00, TotOrVol=-.1060E+02, N-Or=    2, TotDurOr=   16.hrs]
02014> 100:0040----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02015>       ADD HYD          01:N_TO    54709.01  148.001 No_date   35:05    39.42  n/a
02016>                      + 02:MS_P3     21.86      .080 No_date   24:40    61.25  n/a
02017>                      + 09:P3-OVF   173.14    22.231 No_date   28:05    61.25  n/a
02018>          [DT= 5.00]  SUM= 10:SN_TO  54904.01  148.757 No_date   35:05    39.50  n/a
02019> 100:0041----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02020>       SAVE HYD         10:SN_TO   54904.01  148.757 No_date   35:05    39.50  n/a
02021>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_TO.100
02022>          remark: Total Flows at Todd Drain
02023> #
02024> # Hydrograph from Todd Drain routed to Corrigan Drain
02025> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
02026> #
02027> 100:0042----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02028>       ROUTE CHANNEL    -> 10:SN_TO   54904.01  148.757 No_date   35:05    39.50  n/a
02029> *     [RDT= 5.00] out<- 01:N_TO   54904.01  148.481 No_date   35:20    39.50  n/a
02030>          [L/S/m= 280./ .033/ .045]
02031>          [Vmx= .714: Dmx= 4.087]
02032> #*******************************************************************************
02033> #    Catchment CORRIG
02034> #    - To Corrigan Drain (south of the Jock)
02035> #    - Primarily Developed (medium density)
02036> #*******************************************************************************
02037> 100:0043----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02038>       CONTINUOUS STANDHYD02:CORRIG    149.00    19.025 No_date   28:05    62.15 .702
02039>          [XIMP= .45: TIMP= .45]
02040>          [LOSS= 2 : CN= 77.0]
02041>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
02042>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 997. : MNI=.013: SCI=   .0]
02043>          [IaRECmp=  4.00: IaRECper=  4.00]
02044>          [SM N= 31.15: SMXx=207.66: SK= .010]
02045> #*******************************************************************************
02046> #    Corrigan Pond 1
02047> #    - Rating curve obtained from Barrhaven South MSS modeling
02048> #    - Tributary Drainage Area to MSS Pond 1 = 145 ha
02049> #*******************************************************************************
02050> 100:0044----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02051>       ROUTE RESERVOIR  -> 02:CORRIG    149.00    19.025 No_date   28:05    62.15  n/a
02052>          [RDT= 5.00] out<- 05:MS_P1     16.12      .060 No_date   24:20    62.15  n/a
02053>                      overflow <= 04:P1-OVF   132.88   18.764 No_date   28:05    62.15  n/a
02054>          [MxStOlsed=-.5800E+00, TotOrVol=-.8259E+01, N-Or=    2, TotDurOr=   16.hrs]
02055> 100:0045----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02056>       ADD HYD          01:N_TO    54904.01  148.481 No_date   35:20    39.50  n/a
02057>                      + 04:P1-OVF   132.88   18.764 No_date   28:05    62.15  n/a
02058>                      + 05:MS_P1     16.12      .060 No_date   24:20    62.15  n/a
02059>          [DT= 5.00]  SUM= 03:SN_CO  55053.02  149.062 No_date   35:20    39.56  n/a
02060> 100:0046----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02061>       SAVE HYD         03:SN_CO   55053.02  149.062 No_date   35:20    39.56  n/a
02062>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_CO.100
02063>          remark: Total Flows at Corrigan Drain
02064> #
02065> # Hydrograph from Corrigan Drain routed to Jockvale Road
02066> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
02067> #
02068> 100:0047----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02069>       ROUTE CHANNEL    -> 03:SN_CO   55053.02  149.062 No_date   35:20    39.56  n/a
02070>          [RDT= 5.00] out<- 01:N_M    55053.02  149.053 No_date   35:25    39.56  n/a
02071>          [L/S/m= 580./ .445/ .045]
02072>          [Vmx= 2.191: Dmx= 2.152]
02073> #*******************************************************************************
02074> #    Catchment MILLS
02075> #    - To SWM Facility north of the Jock
02076> #    - Primarily residental development
02077> #*******************************************************************************
02078> 100:0048----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02079>       CONTINUOUS STANDHYD02:MILLS     139.00    15.807 No_date   28:05    56.87 .642
02080>          [XIMP= .38: TIMP= .38]
02081>          [LOSS= 2 : CN= 74.0]
02082>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
02083>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 963. : MNI=.013: SCI=   .0]
02084>          [IaRECmp=  4.00: IaRECper=  4.00]
02085>          [SM N= 36.67: SMXx=244.49: SK= .010]
02086> #*******************************************************************************
02087> #    Chapman Mills SWM Pond
02088> #    - Rating curve obtained from CCL hydraulic modeling
02089> #*******************************************************************************
02090> 100:0049----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02091>       ROUTE RESERVOIR  -> 02:MILLS    139.00    15.807 No_date   28:05    56.87  n/a
02092>          [RDT= 5.00] out<- 05:MILL_P    128.54     4.050 No_date   28:15    56.87  n/a
02093>                      overflow <= 04:MIL-OV    10.46    7.805 No_date   28:15    56.87  n/a
02094>          [MxStOlsed=-.2310E+01, TotOrVol=-.5946E+00, N-Or=    2, TotDurOr=    1.hrs]
02095> 100:0050----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02096>       ADD HYD          01:N_M     55053.02  149.053 No_date   35:25    39.56  n/a
02097>                      + 04:MIL-OV    10.46    7.805 No_date   28:15    56.87  n/a
02098>                      + 05:MILL_P    128.54     4.050 No_date   28:15    56.87  n/a
02099>          [DT= 5.00]  SUM= 03:SN_MI  55192.02  149.684 No_date   35:20    39.61  n/a
02100> 100:0051----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02101>       SAVE HYD         03:SN_MI   55192.02  149.684 No_date   35:20    39.61  n/a
02102>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_M.100
02103>          remark: Total Flows at Jockvale Road
02104> #
02105> # Hydrograph from Jockvale Road routed to Heart's Desire
02106> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
02107> #
02108> 100:0052----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02109>       ROUTE CHANNEL    -> 03:SN_MI   55192.02  149.684 No_date   35:20    39.61  n/a
02110>          [RDT= 5.00] out<- 01:N_DE   55192.02  148.919 No_date   36:00    39.61  n/a
02111>          [L/S/m= 1962./ .223/ .045]
02112>          [Vmx= .940: Dmx= .152]
02113> #*******************************************************************************
02114> #    Catchment DESIRE
02115> #    - To Jock River (north of the Jock)
02116> #    - Rural-estate subdivision (Heart's Desire Community)
02117> #*******************************************************************************
02118> 100:0053----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02119>       CONTINUOUS STANDHYD02:DESIRE     24.00     2.882 No_date   28:00    53.12 .600
02120>          [XIMP= .25: TIMP= .25]
02121>          [LOSS= 2 : CN= 77.0]
02122>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
02123>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 400. : MNI=.013: SCI=   .0]
02124>          [IaRECmp=  4.00: IaRECper=  4.00]
02125>          [SM N= 31.15: SMXx=207.66: SK= .010]
02126> #*******************************************************************************
02127> #    Catchment JOCKVA
02128> #    - To Jockvale SWM Facility
02129> #    - Residential development & golf course
02130> #*******************************************************************************
02131> 100:0054----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02132>       CONTINUOUS STANDHYD03:JOCKVA     252.00    30.693 No_date   28:05    62.70 .708
02133>          [XIMP= .50: TIMP= .50]
02134>          [LOSS= 2 : CN= 74.0]
02135>          [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
02136>          [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1296. : MNI=.013: SCI=   .0]
02137>          [IaRECmp=  4.00: IaRECper=  4.00]
02138>          [SM N= 36.67: SMXx=244.49: SK= .010]
02139> #*******************************************************************************
02140> #    Jockvale SWM Facility
02141> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
02142> #*******************************************************************************
02143> 100:0055----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02144>       ROUTE RESERVOIR  -> 03:JOCKVA    252.00    30.693 No_date   28:05    62.70  n/a
02145>          [RDT= 5.00] out<- 05:JOCK_P    252.00    11.951 No_date   28:35    62.70  n/a
02146>                      overflow <= 04:JO-OVF     .00      .000 No_date    0:00      .00  n/a
02147>          [MxStOlsed=-.6202E+01, TotOrVol=-.0000E+00, N-Or=    0, TotDurOr=    0.hrs]
02148> 100:0056----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02149>       ADD HYD          01:N_DE    55192.02  148.919 No_date   36:00    39.61  n/a
02150>                      + 02:DESIRE    24.00     2.882 No_date   28:00    53.12  n/a
02151>                      + 04:JO-OVF       .00      .000 No_date    0:00      .00  n/a
02152>                      + 05:JOCK_P    252.00    11.951 No_date   28:35    62.70  n/a
02153>          [DT= 5.00]  SUM= 03:SN_DE  55468.01  150.033 No_date   36:00    39.72  n/a
02154> 100:0057----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02155>       SAVE HYD         03:SN_DE   55468.01  150.033 No_date   36:00    39.72  n/a
02156>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_DE.100
02157>          remark: Total Flows at Heart's Desire
02158> #
02159> # Hydrograph from Heart's Desire routed to Rideau River
02160> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
02161> #
02162> 100:0058----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02163>       ROUTE CHANNEL    -> 03:SN_DE   55468.01  150.033 No_date   36:00    39.72  n/a
02164>          [RDT= 5.00] out<- 01:NI     55468.01  150.023 No_date   36:05    39.72  n/a
02165>          [L/S/m= 563./ .967/ .045]
02166>          [Vmx= 2.709: Dmx= .046]
02167> #*******************************************************************************
02168> #    Catchment S-2
02169> #    - To Jock River (north and south)
02170> #    - Undeveloped floodplain and river
02171> #*******************************************************************************
02172> 100:0059----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02173>       CONTINUOUS NASHYD  02:S-2       102.00     5.616 No_date   28:15    40.95 .462
02174>          [CN= 72.0: N= 3.00]
02175>          [Tp= .40: DT= 5.00]
02176>          [IaREC= 4.00: SM N= 39.75: SMXx=264.99: SK= .010]
02177>          [InterEventTime= 12.00]
02178> 100:0060----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02179>       ADD HYD          01:NI      55468.01  150.023 No_date   36:05    39.72  n/a
02180>                      + 02:S-2       102.00     5.616 No_date   28:15    40.95  n/a
02181>          [DT= 5.00]  SUM= 03:SN_NI  55570.01  150.390 No_date   36:05    39.72  n/a
02182> 100:0061----------ID:NHYD------AREA----QPEAK-TpeakDate_hh:mm----R.V.-R.C.-
02183>       SAVE HYD         03:SN_NI   55570.01  150.390 No_date   36:05    39.72  n/a
02184>          fname : C:\Navin\OCTOBE~1\CONTIN~1\SMR_POST\H-SN_NI.100
02185>          remark: Total Flows at Rideau River
02186> ##############################################################################
02187> 100:0002----------------------------------------------------------------------
02188>          FINISH
02189> ----------------------------------------------------------------------------
02190> ****************************************************************************
02191>       WARNINGS / ERRORS / NOTES
02192>       -------------------------
02193> 002:0037 ROUTE CHANNEL    ->
02194>          *** WARNING: TRAVEL TIME TABLE was exceeded
02195>          *** WARNING: TRAVEL TIME TABLE was exceeded
02196>          *** WARNING: TRAVEL TIME TABLE was exceeded
02197>          *** WARNING: TRAVEL TIME TABLE was exceeded
02198>    Simulation ended on 2006-11-15      at 14:33:35
02199> ============================================================================
02200>
02201>
```

Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

Attachment C

Model 3 – Jock River Reach One Update

JFSA, 2021

SWMHYMO Input & Summary files

```
20    Metric units / ID numbers OFF
*#*************************************************************************
*#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
*#*************************************************************************
*#  Project Name: [Jock River]    Project Number: [1474-16]
*#  Date        : 04-03-2021
*#  Modeller    : [MM]
*#  Company     : JFSAinc.
*#  License #   :  2549237
*#*************************************************************************
*# CALIBRATION OF SUMMER MODEL PARAMETERS
*# USING CONTINUOUS SIMULATIONS
*# Rainfall data from JFSA raingauge installed at site + other gauges by the City
*# Use data collected from May 1st to July 14, 2003
*# 2020-11-30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0.1 instead of 0.0001)
*# 2020-12-01 correct pond curve values
*# 2020-12-01 change W_CLAR_BRAZ XIMP to 0.55, SLPI=[0.5](%) (impervious slope), and LGI up to 700m
*# 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"],NHYDin=["SN_TO"]) from 0.033 %(as per Stantec Report 2007) to 0.05 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*# 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"],NHYDin=["SN_CE"]) from 0.01 %(as per Stantec Report 2007) to 0.0255 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*
* Calibrated parameters for Summer 2003 data:  APII=50, APIK=0.85, CN=varies,
*                                              SK=0.01, InterEventTime=12,
*                                              GWResk=0.96, VHydCond=0.055
*
*# -----------------------------------------------------------------------
*
*START                TZERO=[2003.0501],  METOUT=[2],  NSTORM=[1],  NRUN=[001]
*                     ["XAVG0315.STM"] average storm data a 15 minute time step
*                     The above rainf file is an average of the JFSA gauge data
*                     with the City of Ottawa rainfall data collected during
*                     the same period.
*% 2 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[2]
                     ["C24SC002.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
READ STORM           STORM_FILENAME=["storm.001"]
*%-----------------|-------------------------------------------------------|
MODIFY STORM         ICASEms=[1],  NSHIFT=[96],
                     RedFACT=[1],
*%-----------------|-------------------------------------------------------|
DEFAULT VALUES       ICASEdef=[1],  read and print values
                     DEFVAL_FILENAME=["CitiGate.DEF"]
*%-----------------|-------------------------------------------------------|
COMPUTE API          APII=[50], APIK=[.85]/day
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["JR_HW"], DT=[1]min, AREA=[3680](ha),
                     DWF=[0](cms),  CN/C=[64], IA=[2.5](mm),
                     N=[3.0], TP=[7.13]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
```

```
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_13"], DT=[1]min, AREA=[971](ha),
                        DWF=[0](cms),   CNVC=[61], IA=[2.5](mm),
                        N=[3.0], TP=[3.76]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_GWM"], DT=[1]min, AREA=[3074](ha),
                        DWF=[0](cms),   CNVC=[55], IA=[2.5](mm),
                        N=[3], TP=[11.33]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_ASH"], DT=[1]min, AREA=[1781](ha),
                        DWF=[0](cms),   CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[3.91]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_11"], DT=[1]min, AREA=[500](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[1.24]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NN_CK"], DT=[1]min, AREA=[1917](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
```

```
                        N=[3.0], TP=[5.29]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.52
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_10"], DT=[1]min, AREA=[5666](ha),
                        DWF=[0](cms), CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[8.00]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["KG_CK"], DT=[1]min, AREA=[8376](ha),
                        DWF=[0](cms), CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[11.66]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.68
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_9"], DT=[1]min, AREA=[1132](ha),
                        DWF=[0](cms), CNVC=[70], IA=[2.5](mm),
                        N=[3.0], TP=[2.51]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NC_CK"], DT=[1]min, AREA=[4464](ha),
                        DWF=[0](cms), CNVC=[62], IA=[2.5](mm),
                        N=[3.0], TP=[11.32]hrs,
                        Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_8"], DT=[1]min, AREA=[131](ha),
                        DWF=[0](cms),   CNVC=[63], IA=[2.5](mm),
                        N=[3.0], TP=[0.90]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.65
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["HB_DR"], DT=[1]min, AREA=[3854](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[8.42]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_7"], DT=[1]min, AREA=[3197](ha),
                        DWF=[0](cms),   CNVC=[57], IA=[2.5](mm),
                        N=[3.0], TP=[6.65]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_6"], DT=[1]min, AREA=[165](ha),
                        DWF=[0](cms),   CNVC=[67], IA=[2.5](mm),
                        N=[3.0], TP=[4.18]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.67
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["VG_DR"], DT=[1]min, AREA=[1332](ha),
                        DWF=[0](cms),   CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[5.95]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5"], DT=[1]min, AREA=[224](ha),
                        DWF=[0](cms),   CNVC=[77], IA=[2.5](mm),
                        N=[3.0], TP=[0.75]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.20
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["FL_CK"], DT=[1]min, AREA=[4945](ha),
                        DWF=[0](cms),   CNVC=[74], IA=[2.5](mm),
                        N=[3.0], TP=[4.45]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5A2"], DT=[1]min, AREA=[20](ha),
                        DWF=[0](cms),   CNVC=[81], IA=[2.5](mm),
                        N=[3.0], TP=[0.62]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.61
*%----------------|-------------------------------------------------------------|
```

```
CONTINUOUS NASHYD   NHYD=["SW_5A1"], DT=[1]min, AREA=[1412](ha),
                    DWF=[0](cms),  CNVC=[75], IA=[2.5](mm),
                    N=[3.0], TP=[8.00]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_4"], DT=[1]min, AREA=[585](ha),
                    DWF=[0](cms),  CNVC=[81], IA=[2.5](mm),
                    N=[3.0], TP=[1.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["LM_CK"], DT=[1]min, AREA=[1021](ha),
                    DWF=[0](cms),  CNVC=[80], IA=[2.5](mm),
                    N=[3.0], TP=[2.46]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_2"], DT=[1]min, AREA=[177](ha),
                    DWF=[0](cms),  CNVC=[77], IA=[2.5](mm),
                    N=[3.0], TP=[0.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SM_DR"], DT=[1]min, AREA=[1122](ha),
                    DWF=[0](cms),  CNVC=[81], IA=[2.5](mm),
                    N=[3.0], TP=[3.25]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["MO_DR"], DT=[1]min, AREA=[2737](ha),
                    DWF=[0](cms),  CNVC=[76], IA=[2.5](mm),
                    N=[3.0], TP=[3.03]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*    -JFSA 2020 replaced SW_1 with a detailed model from Stantec Report 2007
*CONTINUOUS NASHYD   NHYD=["SW_1"], DT=[1]min, AREA=[3176](ha),
*                    DWF=[0](cms),  CN/C=[78], IA=[2.5](mm),
*                    N=[3.0], TP=[3.56]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# Routing hydrographs
*#
*# Starting with the addition of Jock River Headwater and Subwatershed 13
*#
ADD HYD             NHYDsum=["S_N13"], NHYDs to add=["JR_HW"+"SW_13"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 13 routed to Node 13A
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
*#
ROUTE CHANNEL       NHYDout=["N13A"] ,NHYDin=["S_N13"],
                    RDT=[1](min),
                    CHLGTH=[9074](m),   CHSLOPE=[0.0220](%),
                                          FPSLOPE=[0.0220](%),
                    SECNUM=[1.0],         NSEG=[1]
                    ( SEGROUGH, SEGDIST(m))=[0.04,15.5] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.0]
                          [15.5, 129.5]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
*#
ADD HYD             NHYDsum=["SN13A"], NHYDs to add=["N13A"+"JR_GWM"]
*%----------------|-------------------------------------------------------------|
*#
*# Insertion of a reservoir to simulate the effects of the Goodwood Marsh
*#
ROUTE RESERVOIR     NHYDout=["RES_GM"] ,NHYDin=["SN13A"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
```

```
                                        (cms) - (ha-m)
                                      [    0.0 ,   0.0 ]
                                      [1.991, 2.144    ]
                                      [2.693, 39.826   ]
                                      [3.509, 81.697   ]
                                      [4.578, 318.774  ]
                                      [5.647, 594.947  ]
                                      [7.109, 910.219  ]
                                      [8.616, 1264.589  ]
                                      [10.371, 1658.057  ]
                                      [12.402, 2090.622 ]
                                      [22.056, 3462.487 ]
                                      [    -1  ,   -1  ]  (max twenty pts)
                            NHYDovf=["      "] ,
*%----------------|-------------------------------------------------------------|
*#
SAVE HYD            NHYD=["RES_GM"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_RESGM"]
                    HYD_COMMENT=["Outflow from Res GM"]
*%----------------|-------------------------------------------------------------|
*# Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
ROUTE CHANNEL       NHYDout=["N12"] ,NHYDin=["RES_GM"] ,
                    RDT=[1](min),
                    CHLGTH=[5926](m),   CHSLOPE=[0.0759](%),
                                          FPSLOPE=[0.0759](%),
                    SECNUM=[1.0],         NSEG=[1]
                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.00]
                          [15.5, 129.5]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Ashton to Node 12
*#
ADD HYD             NHYDsum=["S_N12"], NHYDs to add=["N12"+"JR_ASH"]
SAVE HYD            NHYD=["S_N12"],   # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN12"]
                    HYD_COMMENT=["flow at S_N12 near Ashton"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
*ROUTE CHANNEL       NHYDout=["N11"] ,NHYDin=["S_N12"] ,
*                    RDT=[1](min),
*                    CHLGTH=[972](m),   CHSLOPE=[0.0514](%),
*                                         FPSLOPE=[0.0514](%),
*                    SECNUM=[1.0],         NSEG=[1]
*                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
*                    ( DISTANCE (m), ELEVATION (m))=
```

```
*                               [-40,  132.5]
*                               [-30,  132]
*                               [-25,  131.5]
*                               [-13,  130]
*                               [-8,  127.00]
*                               [-7,  126.50]
*                               [-6,  126]
*                               [-5.5,  125.50]
*                               [0,  123.75]
*                               [4.5,  125.50]
*                               [6,  126]
*                               [7.5,  126.5]
*                               [9,  127]
*                               [10,  127.5]
*                               [11.5,  128.00]
*                               [15.5,  129.5]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
*#
ROUTE CHANNEL          NHYDout=["Duml1"] ,NHYDin=["S_N12"] ,
                       RDT=[1](min),
                       CHLGTH=[972](m),   CHSLOPE=[0.054](%),
                                            FPSLOPE=[0.054](%),
                       SECNUM=[1.0],          NSEG=[1]
                       ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                             [-40,  132.5]
                             [-30,  132]
                             [-25,  131.5]
                             [-13,  130]
                             [-8,  127.00]
                             [-7,  126.50]
                             [-6,  126]
                             [-5.5,  125.50]
                             [0,  123.75]
                             [4.5,  125.50]
                             [6,  126]
                             [7.5,  126.5]
                             [9,  127]
                             [10,  127.5]
                             [11.5,  128.00]
                             [15.5,  129.5]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 11 and No Name Creek to Node 11
*#
ADD HYD                NHYDsum=["S_N11"], NHYDs to add=["Duml1"+"SW_11"+"NN_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 11 routed to Node 10
*# Section 1
*#
ROUTE CHANNEL          NHYDout=["N10"] ,NHYDin=["S_N11"] ,
                       RDT=[1](min),
                       CHLGTH=[14028](m),   CHSLOPE=[0.1568](%),
                                            FPSLOPE=[0.1568](%),
                       SECNUM=[1.0],          NSEG=[5]
                       ( SEGROUGH, SEGDIST (m))=
                        [0.04,-52.82
                         0.1,-6.47
                         -0.05,6.47
                         0.1,45.36
                         0.04,423.88] NSEG times
                      ( DISTANCE (m), ELEVATION (m))=
                             [-226.24 ,112.50]
```

```
                                [-167.50 ,111.50]
                                [-106.81 ,111.00]
                                [-92.37 ,110.00]
                                [-52.82 ,109.00]
                                [-24.90, 109.00]
                                [-17.02, 108.50]
                                [-6.47, 108.00]
                                [6.47, 108.00]
                                [15.67, 108.50]
                                [18.95, 109.00]
                                [45.36, 109.50]
                                [120.79, 110.00]
                                [145.72, 111.00]
                                [181.56, 111.50]
                                [423.88, 112.50]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 10 to Node 10
*#
ADD HYD             NHYDsum=["S_N10"], NHYDs to add=["N10"+"SW_10"]
*%----------------|---------------------------------------------------------------|
SAVE HYD            NHYD=["S_N10"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN10"]
                    HYD_COMMENT=["flow at S_N10: N10 + SW_10"]
*%----------------|---------------------------------------------------------------|
*# Addition of Kings Creek to S_N10
*#
ADD HYD             NHYDsum=["S_N10A"], NHYDs to add=["S_N10"+"KG_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 10 routed to Node 9
*# Section 2
*#
ROUTE CHANNEL       NHYDout=["N9"] ,NHYDin=["S_N10A"] ,
                    RDT=[1](min),
                    CHLGTH=[3982](m),   CHSLOPE=[0.0753](%),
                                          FPSLOPE=[0.0753](%),
                    SECNUM=[1.0],         NSEG=[4]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.04,-30.27
                       0.05,-18.42
                      -0.05,18.42
                       0.04,131.58] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                          [-446.74, 106.00]
                          [-415.68, 105.50]
                          [-285.40, 105.00]
                          [-173.77, 104.50]
                          [-144.95, 104.00]
                          [-111.18, 103.50]
                          [-94.06, 103.00]
                          [-71.02, 102.50]
                          [-30.27, 102.00]
                          [-19.33, 100.00]
                          [-18.42, 99.50]
                          [18.42, 99.50]
                          [20.77, 100.00]
                          [27.93, 101.00]
                          [52.29, 101.00]
                          [68.80, 101.50]
                          [79.66, 103.00]
                          [91.50, 103.50]
                          [131.58, 104.00]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 9 and Nichols Creek to Node 9
```

```
*#
ADD HYD                 NHYDsum=["S_N9"], NHYDs to add=["N9"+"SW_9"+"NC_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 9 routed to Node 8
*# Section 3
*#
ROUTE CHANNEL           NHYDout=["N8"] ,NHYDin=["S_N9"] ,
                        RDT=[1](min),
                        CHLGTH=[2269](m),   CHSLOPE=[0.0882](%),
                                             FPSLOPE=[0.0882](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.1,-17.99
                          -0.045,17.31
                          0.1,456.58] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                              [-201.19,100.50]
                              [-135.21, 100.00]
                              [-94.83, 99.50]
                              [-67.05, 99.00]
                              [-17.99, 98.50]
                              [-16.02, 98.00]
                              [-13.95, 97.50]
                              [13.95, 97.50]
                              [15.64, 98.00]
                              [17.31, 98.50]
                              [162.02, 98.50]
                              [172.89 ,99.00]
                              [314.38, 99.00]
                              [343.78, 99.50]
                              [365.67, 100.00]
                              [376.68, 100.00 ]
                              [393.11, 99.50]
                              [404.97, 99.50]
                              [431.70, 100.00]
                              [456.58, 100.50 ]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 8 and Hobb's Drain to Node 8
*#
ADD HYD                 NHYDsum=["S_N8"], NHYDs to add=["N8"+"SW_8"+"HB_DR"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 8 routed to Node 7
*# Section 4
*#
ROUTE CHANNEL           NHYDout=["N7"] ,NHYDin=["S_N8"],
                        RDT=[1](min),
                        CHLGTH=[3750](m),   CHSLOPE=[0.0533](%),
                                             FPSLOPE=[0.0533](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.12,-18.11
                          -0.07,17.22
                          0.12,590.05] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                              [-433.21, 102.00]
                              [-425.34, 101.50]
                              [-377.56, 101.50]
                              [-366.23, 101.00]
                              [-202.60, 100.50]
                              [-96.25, 99.50]
                              [-68.36 99.00]
                              [-18.11, 98.50]
                              [-13.81, 97.50]
```

```
                              [13.81,  97.50]
                              [17.22,  98.50]
                              [161.95,  98.50]
                              [173.11,  99.00]
                              [314.05,  99.00]
                              [365.52,  100.00]
                              [404.70,  99.50]
                              [476.74,  100.50]
                              [502.31,  101.00]
                              [584.69,  101.00]
                              [585.79,  101.00]
                              [590.05,  102.00]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed 7 to Node 7
*#
ADD HYD             NHYDsum=["S_N7"], NHYDs to add=["N7"+"SW_7"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["S_N7"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN7"]
                    HYD_COMMENT=["flow at S_N7: N7 + SW_7"]
*%----------------|-------------------------------------------------------------|
*# Insertion of a reservoir to simulate the effects of the Richmond Fen.
*# Storage area and volumes were estimated from available topo maps.
*# Release rate from fen was assumed to be controlled by the downstream
*# river cross-section for summer conditions.  It is was assumed that for up to
*# 0.75 m of water, the main channel of the river provided the storage.  Above
*# this depth, the wetland starts to signigicantly store water.
*#
ROUTE RESERVOIR     NHYDout=["RES_RF"] ,NHYDin=["S_N7"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [    0.0 ,      0.0 ]
                                  [0.9051,      2.40]
                                  [2.907,       4.13]
                                  [9.744,       9.18]
                                  [20.304,     14.96]
                                  [34.167,    310.21]
                                  [74.993,    605.46]
                                  [104.876,  900.71]
                                  [140.56,  2892.00]
                                  [225.00,  3615.63]
                                  [    -1 ,    -1  ]  (max twenty pts)
                          NHYDovf=["       "] ,
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["RES_RF"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_ResRF"]
                    HYD_COMMENT=["outflow of Richmond Fen"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 7 routed to Node 6
*# Section 5
*#
ROUTE CHANNEL       NHYDout=["N6"] ,NHYDin=["RES_RF"] ,
                    RDT=[1](min),
                    CHLGTH=[3056](m),   CHSLOPE=[0.0818](%),
                                         FPSLOPE=[0.0818](%),
                    SECNUM=[1.0],        NSEG=[5]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.025,-70.8
                      0.1,-23.9
                      -0.05,23.9
                      0.06,39.8
```

```
                          0.05,96.3] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                                        [-100.8, 97.00]
                                        [-70.8, 96.50]
                                        [-52.0, 96.00]
                                        [-35.1, 95.50]
                                        [-30.6, 95.00]
                                        [-23.9, 94.54]
                                        [23.9, 94.54]
                                        [39.8, 95.00]
                                        [50.4, 95.50]
                                        [93.5, 96.00]
                                        [94.9, 96.50]
                                        [96.3, 97.00]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 6 and Van Gaal Drain to Node 6
*#
ADD HYD             NHYDsum=["S_N6"], NHYDs to add=["N6"+"SW_6"+"VG_DR"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 6 routed to Node 5
*# Section 6
*#
ROUTE CHANNEL       NHYDout=["N5"] ,NHYDin=["S_N6"] ,
                    RDT=[1](min),
                    CHLGTH=[1852](m),   CHSLOPE=[0.0540](%),
                                          FPSLOPE=[0.0540](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.035,-131.59
                      -0.045,48.96
                      0.1,239.04] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                        [-686.30, 94.50]
                                        [-675.70, 94.00]
                                        [-492.52, 93.00]
                                        [-467.28, 94.00]
                                        [-131.59, 94.00]
                                        [-92.79, 92.50]
                                        [-18.06, 91.00]
                                        [18.06, 91.00]
                                        [43.47, 92.50]
                                        [48.96, 94.00]
                                        [177.43, 94.00]
                                        [239.04,94.50]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 5 and Flowing Creek to Node 5
*#
ADD HYD             NHYDsum=["S_N5"], NHYDs to add=["N5"+"SW_5"+"FL_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5 routed to Node 5A
*# Section 7
*#
ROUTE CHANNEL       NHYDout=["N5A"] ,NHYDin=["S_N5"] ,
                    RDT=[1](min),
                    CHLGTH=[556](m),   CHSLOPE=[0.0900](%),
                                         FPSLOPE=[0.0900](%),
                    SECNUM=[1.0],         NSEG=[4]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.04,-41.5
                      0.1,-14.0
                      -0.045,14.0
                      0.1,41.1] NSEG times
```

```
                        ( DISTANCE (m), ELEVATION (m)) =
                                        [-275.8,  93.00]
                                        [-248.6,  92.50]
                                        [-237.0,  92.00]
                                        [-219.3,  91.50]
                                        [-202.1,  91.50]
                                        [-186.0,  92.00]
                                        [-129.2,  92.00]
                                        [-117.6,  91.50]
                                        [-100.6,  91.00]
                                        [-41.5,  91.00]
                                        [-20.0,  91.00]
                                        [-14.0,  90.54]
                                        [14.0,  90.54]
                                        [15.3,  91.00]
                                        [17.3,  91.50]
                                        [38.4,  92.00]
                                        [39.8,  92.50]
                                        [41.1,  93.00]
*%----------------|------------------------------------------------------------|
*#
*# Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
*#
ADD HYD                 NHYDsum=["S_N5A"],  NHYDs to add=["N5A"+"SW_5A2"+"SW_5A1"]
*%----------------|------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5A routed to Node 4
*# Section 8
*#
ROUTE CHANNEL           NHYDout=["N4"] ,NHYDin=["S_N5A"] ,
                        RDT=[1](min),
                        CHLGTH=[4630](m),   CHSLOPE=[0.0432](%),
                                             FPSLOPE=[0.0432](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m)) =
                          [0.05,-28.2
                          -0.035,28.2
                          0.05,173.1] NSEG times
                        ( DISTANCE (m), ELEVATION (m)) =
                                        [-38.9,  92.00]
                                        [-35.8,  91.50]
                                        [-33.3,  91.00]
                                        [-28.2,  90.50]
                                        [-15.0,  87.48]
                                        [-5.0,  88.34]
                                        [5.0,  86.20]
                                        [15.0,  88.55]
                                        [28.2,  90.50]
                                        [29.7,  91.00]
                                        [46.5,  91.00]
                                        [127.8,  91.00]
                                        [148.7,  91.50]
                                        [173.1,  92.00]
*%----------------|------------------------------------------------------------|
*#
*# Addition of Subwatershed 4 and Leamy Creek to Node 4
*#
ADD HYD                 NHYDsum=["S_N4"],  NHYDs to add=["N4"+"SW_4"+"LM_CK"]
SAVE HYD                NHYD=["S_N4"],   # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["flow at  S_N4"]
*%----------------|------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 4 routed to Node 2
*# Section 9
*#
ROUTE CHANNEL           NHYDout=["N2"] ,NHYDin=["S_N4"] ,
```

```
                        RDT=[1](min),
                        CHLGTH=[1667](m),   CHSLOPE=[0.0600](%),
                                              FPSLOPE=[0.0600](%),
                        SECNUM=[1.0],         NSEG=[4]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.1,-28.0
                          -0.04,28.4
                          0.06,31.7
                          0.04,80.2] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                                [-36.3, 92.00]
                                [-32.6, 91.50]
                                [-30.2, 91.00]
                                [-28.0, 90.45]
                                [-15.0, 87.48]
                                [-5.0, 88.34]
                                [5.0, 86.20]
                                [15.0, 88.55]
                                [28.0, 90.45]
                                [28.4, 90.50]
                                [30.4, 91.00]
                                [31.7, 91.50]
                                [80.2, 92.00]
*%----------------|---------------------------------------------------------|
*#
*# Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
*#
ADD HYD             NHYDsum=["S_N2"], NHYDs to add=["N2"+"SW_2"+"SM_DR"+"MO_DR"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["S_N2"],   # OF PCYCLES=[-1],   ICASEsh=[-1]
                    HYD_FILENAME=["H_SN2"]
                    HYD_COMMENT=["flow at S_N2 Jock River Gauge at Moodie Dr."]
*%----------------|---------------------------------------------------------|
*#
*# Sum of hydrographs from Node 2 routed to Node 1
*# Section 10
*#
*#########################################################################
*%READ HYD            NHYD=["S_N2"],
*%                    HYD_FILENAME=["H-S_N2"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Node 2 routed to Node 416
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
*#
ROUTE CHANNEL       NHYDout=["N_416"] ,NHYDin=["S_N2"] ,
                    RDT=[1](min),
                    CHLGTH=[2327](m),   CHSLOPE=[0.0498](%),
                                          FPSLOPE=[0.0498](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.075,-23.96
                      -0.055,23.96
                      0.075,157.38]  NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-336.97,93.5]
                    [-318.85,93]
                    [-259,92.5]
                    [-133.18,92]
                    [-33.17,92]
                    [-27.21,92]
                    [-26.14,91.5]
                    [-24.99,91]
                    [-23.96,90.5]
                    [-14.33,88.26]
                    [-0.68,88.12]
```

```
                        [14.33,88.26]
                        [23.96,90.5]
                        [32.12,91]
                        [43.74,91.5]
                        [57.09,92]
                        [73.53,92.5]
                        [108.27,93]
                        [125.88,93.5]
                        [144.81,94]
                        [157.38,94.5]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#    Catchment SW-1a
*#    - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
*#    - Undeveloped agricultural land
*#################################################################################
CONTINUOUS NASHYD   NHYD=["SW_1a"], DT=[1]min, AREA=[536.42](ha),
                    DWF=[0](cms), CNVC=[72],  IA=[4.67](mm),
                    N=[3], TP=[2.79]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-Okeefe" is a part of S-1 sub-catchment. It is moved to drain before station 7245 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-Okeefe"], DT=[1](min), AREA=[44.93](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                    LGI=[547.296](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-Okeefe"], DT=[1]min, AREA=[44.93](ha),
                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                    N=[3], TP=[1.049]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-Okeefe"], CINLET=[4.796](cms), NINLET=[1],
*                    MajNHYD=["S-1-OkMJ"]
*                    MinNHYD=["S-1-OkMN"]
*                    TMJSTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-OkS"], NHYDs to add=["S-1-OkMJ"+"S-1-OkMN"]
*%----------------|---------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-OkSR"] ,NHYDin=["S-1-OkS"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                 [ 0.0      , 0.0 ]
```

```
*                                       [ 0.5370, 1.7917 ]
*                                       [    -1 ,   -1    ]  (max twenty pts)
*                              NHYDovf=["S-1-OkSovf"]
*%----------------|---------------------------------------------------------------|
ADD HYD           NHYDsum=["SN_416"], NHYDs to add=["N_416"+"SW_1a"+"S-1-Okeefe"]
*%----------------|---------------------------------------------------------------|
SAVE HYD          NHYD=["SN_416"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Highway 416"]
*%----------------|---------------------------------------------------------------|
*#
*# Hydrograph from Node 416 routed to Node at Okeefe drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
*#
ROUTE CHANNEL     NHYDout=["N_OK"] ,NHYDin=["SN_416"] ,
                  RDT=[1](min),
                  CHLGTH=[497](m),   CHSLOPE=[0.3018](%),
                                       FPSLOPE=[0.3018](%),
                  SECNUM=[1.0],        NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=
                    [0.075,-19.40
                    -0.055,19.40
                    0.075,377.02] NSEG times
                  ( DISTANCE (m), ELEVATION (m))=
                  [-1061.41, 92.50]
                  [-945.91, 92.00]
                  [-783.64, 91.50]
                  [-136.74, 91.00]
                  [-86.04, 91.00]
                  [-20.86, 91.00]
                  [-20.18, 90.50]
                  [-19.40, 90.00]
                  [-11.68, 86.89]
                  [0.00, 86.10]
                  [12.09, 86.81]
                  [19.40, 90.00]
                  [34.68, 90.50]
                  [60.56, 91.00]
                  [170.14, 91.00]
                  [175.05, 90.50]
                  [180.29, 90.00]
                  [193.41, 90.00]
                  [195.98, 90.50]
                  [377.02, 92.50]
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#    Catchment OKEEFE
*#    - To O'Keefe drain (north of the Jock)
*#    - Developed with assumed 43% imp.
*#    - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area
513.02 HA)
*#    - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model
(Citi-Gate 2014).
*%----------------|---------------------------------------------------------------|
*POST DEVELOPMENT CONDITIONS
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
CONTINUOUS NASHYD NHYD=["O-1"], DT=[1]min, AREA=[63.72](ha),
                  DWF=[0](cms), CN/C=[61], IA=[6.2](mm), N=[3], TP=[.9]hrs,
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[12](hrs)
                  Baseflow simulation parameters:
                  BaseFlowOption=[1] ,
                  InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                  VHydCond=[0.055](mm/hr),    END=-1
```

```
*%----------------|-------------------------------------------------------------------------------|
*ROUTE FLOW THROUGH AREA O-2
ROUTE CHANNEL       NHYDout=["O-1R"], NHYDin=["O-1"], RDT=[1](min),
                    CHLGTH=[960](m), CHSLOPE=[0.63](%), FPSLOPE=[0.63](%),
                    SECNUM=[1], NSEG=[3]
                    (SEGROUGH, SEGDIST(m))=[0.06,4 -.043,6 0.06,10] NSEG times
                    (DISTANCE(m), ELEVATION(m))=[0.00, 2.0]
                    [0.0, 2.0]
                    [4.0, 0.0]
                    [6.0, 0.0]
                    [10.0, 2.0]
*%----------------|-------------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-2"], DT=[1]min, AREA=[28.61](ha),
                    DWF=[0](cms), CNVC=[57], IA=[5.2](mm), N=[3], TP=[1.1]hrs,
                   Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-4"], DT=[1]min, AREA=[46.94](ha),
                    DWF=[0](cms), CNVC=[49], IA=[9.2](mm), N=[3], TP=[0.9]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------------|
*TOTAL EXTERNAL FLOW NORTH OF O'KEEFE CT. CROSSING
ADD HYD             NHYDsum=["OKF-N"], NHYDs to add=["O-1R"+"O-2"+"O-4"]
*%----------------|-------------------------------------------------------------------|
*ROUTE FLOW THROUGH AREA O-6
ROUTE CHANNEL       ROUTE CHANNEL NHYDout=["OKF-NR"], NHYDin=["OKF-N"], RDT=[1](min),
                    CHLGTH=[210](m), CHSLOPE=[.81](%), FPSLOPE=[.81](%),
                    SECNUM=[1], NSEG=[3]
                    (SEGROUGH, SEGDIST(m))=[0.043,22.43 -0.043,25.07
                    0.043,45.54] NSEG times
                    (DISTANCE(m), ELEVATION(m))=[0.00, 3.73]
                    (14.62, 1.56)
                    (18.41, 1.44)
                    (22.43, 0.00)
                    (25.07, 0.70)
                    (29.10, 1.79)
                    (33.73, 2.71)
                    (45.54, 3.58)
*%----------------|-------------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-6"], DT=[1]min, AREA=[16.46](ha),
                    DWF=[0](cms), CNVC=[43], IA=[9.2](mm), N=[3], TP=[0.7]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["O-3"], DT=[1](min), AREA=[39.67](ha), XIMP=[0.15],
TIMP=[0.30], DWF=[0](cms),
```

```
                        LOSS=[2], SCS curve number CN=[50], Pervious surfaces:
                        IAper=[4.67](mm), SLPP=[0.32](%),
                        LGP=[440](m), MNP=[0.035], SCP=[0](min), Impervious surfaces:
                        IAimp=[1.57](mm), SLPI=[0.32](%),
                        LGI=[1880](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["O-5"], DT=[1](min), AREA=[60.63](ha), XIMP=[0.13],
TIMP=[0.26], DWF=[0](cms),
                        LOSS=[2], SCS curve number CN=[61],
                        Pervious surfaces: IAper=[4.67](mm), SLPP=[1.38](%),
                        LGP=[550](m), MNP=[0.035], SCP=[0](min), Impervious surfaces:
                        IAimp=[1.57](mm), SLPI=[1.38](%),
                        LGI=[1450](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
*TOTAL EXTERNAL FLOWS WEST OF THE SITE AND NORTH OF O'KEEFE CRT
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["PT1"], NHYDs to add=["OKF-NR"+"O-3"+"O-5"+"O-6"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["O-7"], DT=[1]min, AREA=[5.28](ha),
                        DWF=[0](cms), CN/C=[54], IA=[7.5](mm), N=[3], TP=[0.6]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr), END=-1
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 1 - TOTAL FLOW NORTH OF FALLOWFIELD DR. AND O'KEEFE CRT.
ADD HYD                 NHYDsum=["FF"], NHYDs to add=["PT1"+"O-7"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 1
ROUTE CHANNEL           NHYDout=["DRAIN1"], NHYDin=["FF"], RDT=[1](min),
                        CHLGTH=[302]{m), CHSLOPE=[1.00](%), FPSLOPE=[1.00](%),
                        SECNUM=[1], NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=[0.07,13.45 -0.043,16.55 0.07,30.00] NSEG
                        times
                        ( DISTANCE (m), ELEVATION (m))=[0.00, 1.70]
                        (3.45, 0.60)
                        (13.45, 0.50)
                        (14.45, 0.00)
                        (15.55, 0.00)
                        (16.55, 0.50)
                        (26.55, 0.60)
                        (30.00, 1.70)
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["D1"], DT=[1]min, AREA=[1.17](ha),
                        DWF=[0](cms), CN/C=[84], IA=[9.0](mm), N=[3], TP=[0.28]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr), END=-1
*%----------------|-------------------------------------------------------------|
```

```
CONTINUOUS STANDHYD NHYD=["A1"], DT=[1]min, AREA=[2.50](ha), XIMP=[0.68], TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[223.607](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A1-STR"], NHYDin=["A1"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.035 , 0.038 ]
                                  [ 0.072 , 0.051 ]
                                  [ 0.100 , 0.059 ]
                                  [ 0.125 , 0.070 ]
                                  [ 0.160 , 0.074 ]
                                  [ 0.185 , 0.081 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["A1-OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-2"], DT=[1]min, AREA=[0.59](ha), XIMP=[0.46], TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[108.628](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST2STR"], NHYDin=["ST-2"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.0000 ]
                                  [ 0.052 , 0.0010 ]
                                  [ 0.053 , 0.0080 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["ST2OVF"]
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
*TOTAL FLOW NORTH OF STRANDHERD DR. (EAST BRANCH) CROSSING
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-8"], DT=[1]min, AREA=[60.55](ha),
                    DWF=[0](cms), CN/C=[69], IA=[4.0](mm), N=[3], TP=[1.0]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE PIPE          PTYPE=[2]rect, NHYDout=["O8PIPE"], RNUMBER=[1], PWIDTH=[1800](mm), PHEIGHT=[1200](mm), PLNGTH=[335.1](m),
                    PROUGH=[0.013], PSLOPE=[0.001](m/m), NHYDin=["O-8"], RDT=[1](min)
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["ST2-IN"], NHYDs to
```

```
add=["DRAIN1"+"D1"+"A1-STR"+"A1-OVF"+"ST2STR"+"ST2OVF"+"O8PIPE"]
*%----------------|------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A7"], DT=[1]min, AREA=[3.51](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[264.953](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A7-STR"], NHYDin=["A7"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                   [ 0.000 , 0.000 ]
                                   [ 0.049 , 0.054 ]
                                   [ 0.102 , 0.072 ]
                                   [ 0.140 , 0.082 ]
                                   [ 0.175 , 0.099 ]
                                   [ 0.225 , 0.105 ]
                                   [ 0.260 , 0.114 ]
                                   [ -1 , -1 ] (max twenty pts)
                                   NHYDovf=["A7-OVF"]
*%----------------|------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-3"], DT=[1]min, AREA=[0.71](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[119.164](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST3STR"], NHYDin=["ST-3"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                   [ 0.000 , 0.0000 ]
                                   [ 0.063 , 0.0010 ]
                                   [ 0.064 , 0.0094 ]
                                   [ -1 , -1 ] (max twenty pts)
                                   NHYDovf=["ST3OVF"]
*%----------------|------------------------------------------------------------|
*ANALYSIS POINT 2 - TOTAL FLOW AT OUTLET OF STREET 2/3 INTERSECTION
*%----------------|------------------------------------------------------------|
ADD HYD             NHYDsum=["PT2ST3"], NHYDs to
add=["ST2-IN"+"A7-STR"+"A7-OVF"+"ST3STR"+"ST3OVF"]
*%----------------|------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 2
ROUTE CHANNEL       NHYDout=["DRAIN2"], NHYDin=["PT2ST3"], RDT=[1](min),
                    CHLGTH=[592]{m), CHSLOPE=[.23](%), FPSLOPE=[.23](%),
                                       SECNUM=[1], NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=[0.07,12.60 -0.043,17.40 0.07,30.00] NSEG
                    times
                    ( DISTANCE (m), ELEVATION (m))=[0.00, 1.70]
                    (2.60, 0.95)
                    (12.60, 0.75)
                    (14.10, 0.00)
                    (15.90, 0.00)
                    (17.40, 0.75)
                    (27.40, 0.95)
```

```
                        (30.00,  1.70)
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["D2"], DT=[1]min, AREA=[2.28](ha), DWF=[0](cms), CN/C=[84],
IA=[9.0](mm),
                        N=[3], TP=[0.99]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A17"], DT=[1]min, AREA=[12.04](ha), XIMP=[0.68],
TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[490.714](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A17STR"], NHYDin=["A17"], RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.000 , 0.000 ]
                                    [ 0.169 , 0.185 ]
                                    [ 0.349 , 0.248 ]
                                    [ 0.482 , 0.283 ]
                                    [ 0.602 , 0.338 ]
                                    [ 0.771 , 0.359 ]
                                    [ 0.891 , 0.391 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["A17OVF"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-4"], DT=[1]min, AREA=[0.35](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[83.666](m),
                        MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST4STR"], NHYDin=["ST-4"], RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.000 , 0.0000 ]
                                    [ 0.031 , 0.0010 ]
                                    [ 0.032 , 0.0050 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["ST4OVF"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A18"], DT=[1]min, AREA=[5.30](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
```

```
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[325.576](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["A18STR"], NHYDin=["A18"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.074 , 0.082 ]
                                  [ 0.154 , 0.109 ]
                                  [ 0.212 , 0.125 ]
                                  [ 0.265 , 0.149 ]
                                  [ 0.339 , 0.158 ]
                                  [ 0.392 , 0.172 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["A18OVF"]
*%----------------|---------------------------------------------------------------|
*ANALYSIS POINT 3 - TOTAL FLOW AT OUTLET OF STREET 4
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["PT3ST4"], NHYDs to
add=["DRAIN2"+"D2"+"A17STR"+"A17OVF"+"ST4STR"+"ST4OVF"+"A18STR"+"A18OVF"]
*%----------------|---------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 3
ROUTE CHANNEL           NHYDout=["DRAIN3"], NHYDin=["PT3ST4"], RDT=[1](min),
                        CHLGTH=[525](m), CHSLOPE=[.23](%), FPSLOPE=[.23](%),
                        SECNUM=[1], NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=[0.07,12.50 -0.043,17.50 0.07,30.00] NSEG
                        times
                        ( DISTANCE (m), ELEVATION (m))=[0.00, 1.70]
                        (2.50, 1.00)
                        (12.50, 0.80)
                        (14.10, 0.00)
                        (15.90, 0.00)
                        (17.50, 0.80)
                        (27.50, 1.00)
                        (30.00, 1.70)
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["D3"], DT=[1]min, AREA=[2.51](ha),
                        DWF=[0](cms), CN/C=[86], IA=[8.7](mm), N=[3], TP=[0.73]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C1"], DT=[1]min, AREA=[3.41](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[261.151](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["C1-STR"], NHYDin=["C1"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
```

```
                                        [ 0.048 , 0.052 ]
                                        [ 0.099 , 0.070 ]
                                        [ 0.136 , 0.080 ]
                                        [ 0.170 , 0.096 ]
                                        [ 0.218 , 0.102 ]
                                        [ 0.252 , 0.111 ]
                                        [ -1 , -1 ] (max twenty pts)
                                        NHYDovf=["C1-OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-5"], DT=[1]min, AREA=[0.45](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[94.868](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST5STR"], NHYDin=["ST-5"], RDT=[1](min),
                         TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                        [ 0.000 , 0.0000 ]
                                        [ 0.040 , 0.0010 ]
                                        [ 0.041 , 0.0062 ]
                                        [ -1 , -1 ] (max twenty pts)
                                        NHYDovf=["ST5OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["ST5-E"], NHYDs to
add=["DRAIN3"+"D3"+"C1-STR"+"C1-OVF"+"ST5STR"+"ST5OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["STRAND"], DT=[1](min), AREA=[7.59](ha),
                    XIMP=[0.64], TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[1230](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["S-POND"], NHYDin=["STRAND"], RDT=[1](min),
                         TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                        [ 0.000 , 0.000 ]
                                        [ 0.033 , 0.188 ]
                                        [ 0.057 , 0.253 ]
                                        [ 0.104 , 0.287 ]
                                        [ 0.160 , 0.336 ]
                                        [ 0.340 , 0.346 ]
                                        [ 0.471 , 0.360 ]
                                        [ 0.824 , 0.390 ]
                                        [ -1 , -1 ] (max twenty pts)
                                        NHYDovf=["S-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["SSAOUT"], NHYDs to add=["ST5-E"+"S-POND"+"S-OVF"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["SSAOUT"], # OF PCYCLES=[5], ICASEsh=[1]
                    HYD_COMMENT=["SSAOUT"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["Area-A"], DT=[1]min, AREA=[66.75](ha), XIMP=[0.64],
TIMP=[0.80], DWF=[0](cms), LOSS=[1]:
```

```
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[1155.422](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["Area-A"], # OF PCYCLES=[1], ICASEsh=[1]
                        HYD_COMMENT=["SMWF-A Inflow"]
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["SWMF-A"], NHYDin=["Area-A"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [ 0.000 , 0.000 ]
                                      [ 0.103 , 1.077 ]
                                      [ 0.128 , 1.749 ]
                                      [ 0.382 , 2.282 ]
                                      [ 0.703 , 2.582 ]
                                      [ 1.256 , 2.978 ]
                                      [ 1.567 , 3.202 ]
                                      [ 1.955 , 3.493 ]
                                      [ 2.100 , 3.600 ]
                                      [ -1 , -1 ] (max twenty pts)
                                      NHYDovf=["SWMAOV"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["SWMF-A"], # OF PCYCLES=[1], ICASEsh=[1]
                        HYD_COMMENT=["SMWF-A Outflow"]
*%----------------|---------------------------------------------------------------|
*ANALYSIS POINT 4 - TOTAL FLOW AT OUTLET OF STREET 5
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["PT4ST5"], NHYDs to add=["SSAOUT"+"SWMF-A"+"SWMAOV"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C6"], DT=[1]min, AREA=[1.87](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[193.391](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["C6-STR"], NHYDin=["C6"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [ 0.000 , 0.000 ]
                                      [ 0.026 , 0.029 ]
                                      [ 0.054 , 0.038 ]
                                      [ 0.075 , 0.044 ]
                                      [ 0.093 , 0.052 ]
                                      [ 0.120 , 0.056 ]
                                      [ 0.138 , 0.061 ]
                                      [ -1 , -1 ] (max twenty pts)
                                      NHYDovf=["C6-OVF"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C7"], DT=[1]min, AREA=[1.62](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
```

```
1561                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[180.000](m), MNI=[0.013], SCI=[0](min),
1562                        Continuous simulation parameters:
1563                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                            END=-1
1564    *%-----------------|-------------------------------------------------------------|
1565    ROUTE RESERVOIR     NHYDout=["C7-STR"], NHYDin=["C7"], RDT=[1](min),
1566                              TABLE of ( OUTFLOW-STORAGE ) values
1567                                        (cms) - (ha-m)
1568                                      [ 0.000 , 0.000 ]
1569                                      [ 0.023 , 0.025 ]
1570                                      [ 0.047 , 0.033 ]
1571                                      [ 0.065 , 0.038 ]
1572                                      [ 0.081 , 0.045 ]
1573                                      [ 0.104 , 0.048 ]
1574                                      [ 0.120 , 0.053 ]
1575                                      [ -1 , -1 ] (max twenty pts)
1576                                      NHYDovf=["C7-OVF"]
1577    *%-----------------|-------------------------------------------------------------|
1578    CONTINUOUS STANDHYD NHYD=["ST-6"], DT=[1]min, AREA=[0.41](ha),XIMP=[0.46], TIMP=[0.57],
    DWF=[0](cms), LOSS=[1]:
1579                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                            F=[0.00](mm),
1580                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                            MNP=[0.250], SCP=[0](min),
1581                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[90.554](m),
                            MNI=[0.013], SCI=[0](min),
1582                        Continuous simulation parameters:
1583                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                            END=-1
1584    *%-----------------|-------------------------------------------------------------|
1585    ROUTE RESERVOIR     NHYDout=["ST6STR"], NHYDin=["ST-6"], RDT=[1](min),
1586                              TABLE of ( OUTFLOW-STORAGE ) values
1587                                        (cms) - (ha-m)
1588                                      [ 0.000 , 0.0000 ]
1589                                      [ 0.036 , 0.0010 ]
1590                                      [ 0.037 , 0.0058 ]
1591                                      [ -1 , -1 ] (max twenty pts)
1592                                      NHYDovf=["ST6OVF"]
1593    *%-----------------|-------------------------------------------------------------|
1594    *ANALYSIS POINT 5 - TOTAL FLOW AT OUTLET OF STREET 6
1595    *%-----------------|-------------------------------------------------------------|
1596    ADD HYD             NHYDsum=["PT5ST6"], NHYDs to
    add=["PT4ST5"+"C6-STR"+"C6-OVF"+"C7-STR"+"C7-OVF"+"ST6STR"+"ST6OVF"]
1597    *%-----------------|-------------------------------------------------------------|
1598    *ROUTE FLOW through O'Keefe Drain 4
1599    ROUTE CHANNEL       NHYDout=["DRAIN4"], NHYDin=["PT5ST6"], RDT=[1](min),
1600                        CHLGTH=[324]{m), CHSLOPE=[.10](%), FPSLOPE=[.10](%),
1601                        SECNUM=[1], NSEG=[3]
1602                        ( SEGROUGH, SEGDIST (m))=[0.07,12.00 -0.043,18.00 0.07,30.00] NSEG
                            times
1603                        ( DISTANCE (m), ELEVATION (m))=[0.00, 2.00]
1604                        (2.00, 1.20)
1605                        (12.00, 1.00)
1606                        (14.00, 0.00)
1607                        (16.00, 0.00)
1608                        (18.00, 1.00)
1609                        (28.00, 1.20)
1610                        (30.00, 2.00)
1611    *%-----------------|-------------------------------------------------------------|
1612    CONTINUOUS NASHYD   NHYD=["D4"], DT=[1]min, AREA=[1.73](ha), DWF=[0](cms), CNVC=[88],
    IA=[8.4](mm),
1613                        N=[3], TP=[0.60]hrs,
1614                        Continuous simulation parameters:
1615                        IaRECper=[4](hrs),
1616                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["Area-B"], DT=[1]min, AREA=[24.04](ha), XIMP=[0.62],
TIMP=[0.77], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[1.4](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.4](%),
                        LGI=[693.397](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%-----------------|-------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["SWMF-B"], NHYDin=["Area-B"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [ 0.000 , 0.000 ]
                                      [ 0.025 , 0.090 ]
                                      [ 0.175 , 0.510 ]
                                      [ 0.350 , 0.710 ]
                                      [ 0.495 , 0.820 ]
                                      [ 0.648 , 0.980 ]
                                      [ 0.965 , 1.045 ]
                                      [ 1.072 , 1.140 ]
                                      [ -1 , -1 ] (max twenty pts)
                                      NHYDovf=["SWMBOVF"]
*%-----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["D4-EX"], NHYDs to add=["DRAIN4"+"D4"+"SWMF-B"+"SWMBOVF"]
*%-----------------|-------------------------------------------------------------|
*ROUTE FLOW THROUGH O'Keefe Drain 5
* JFSA: Nov. 2020, added en points to close X-Section
ROUTE CHANNEL           NHYDout=["DRAIN5"], NHYDin=["D4-EX"], RDT=[1](min),
                        CHLGTH=[413.0](m), CHSLOPE=[0.16](%), FPSLOPE=[0.16](%),
                        SECNUM=[1], NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=[0.043,12.29 -0.033,17.97
                        0.043,32.84] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=(-0.01, 2.50)
                        [0.00, 1.41]
                        [6.13, 0.97]
                        [12.29, 0.89]
                        [15.71, 0.00]
                        [17.97, 0.39]
                        [23.04, 0.35]
                        [32.83, 0.96]
                        (32.84, 2.50)
*%-----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["D5"], DT=[1]min, AREA=[1.90](ha),
                        DWF=[0](cms), CNVC=[86], IA=[8.7](mm), N=[3], TP=[0.69]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*EXTERNAL FLOWS SOUTHEAST OF THE SITE NORTH OF McKENNA CASEY DR.
CONTINUOUS NASHYD       NHYD=["O-13SDF"], DT=[1]min, AREA=[9.74](ha),
                        DWF=[0](cms), CNVC=[81], IA=[4.0](mm), N=[3], TP=[.43]hrs,
                        Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*SNOW DISPOSAL FACILITY
*PARAMETERS BASED ON ROBINSON 2006 MODEL
ROUTE RESERVOIR         NHYDout=["SDF"], NHYDin=["O-13SDF"], RDT=[1](min),
                             TABLE of ( OUTFLOW-STORAGE ) values
                                       (cms) - (ha-m)
                                    [0.000,0.000]
                                    [0.150,0.600]
                                    (0.200,1.500)
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["OVFSDF"]
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 6 - McKenna Casey Dr.
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["PT6MC"], NHYDs to add=["DRAIN5"+"D5"+"SDF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["O-15"], DT=[1]min, AREA=[10.67](ha),
                        DWF=[0](cms), CN/C=[82], IA=[7.5](mm), N=[3], TP=[0.30]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*TOTAL FLOW NORTH OF McKENNA CASEY DR.
ADD HYD                 NHYDsum=["M-C"], NHYDs to add=["PT6MC"+"O-15"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW THROUGH AREA O-14
* JFSA: Nov. 2020, added end points to close X-section
ROUTE CHANNEL           NHYDout=["O-14Ch"], NHYDin=["M-C"], RDT=[1](min),
                        CHLGTH=[845.3](m), CHSLOPE=[0.10](%), FPSLOPE=[0.10](%),
                        SECNUM=[1], NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=[0.06,15.00 -0.033,18.04 0.06,31.85] NSEG
                        times
                        ( DISTANCE (m), ELEVATION (m))=[-0.01, 2.5
                        (0.00, 1.53]
                        (5.56, 1.47)
                        (9.21, 1.45)
                        (12.45, 1.53)
                        (13.70, 1.50)
                        (15.00, 0.69)
                        (15.34, 0.00)
                        (16.51, 0.05)
                        (17.30, 0.17)
                        (18.04, 0.74)
                        (19.29, 1.32)
                        (22.73, 1.47)
                        (31.84, 1.41)
                        (31.85, 2.50)
*%----------------|-------------------------------------------------------------|
*%    -Change O-14 from NASHYD to STANDHYD, name it "S-1-Okeefe" and add it to S-1
    subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -JFSA 2021-02-16, add detailed subcatchment drainage area for each subcatchment
    in Corrigan sub-catchment. After adding part of  O-14 to S_1 sub-catchment so O-14
    becomes 5 ha instead of 30.02 ha and TP becomes 0.133 (5*0.8/30.02) instead of 0.8
CONTINUOUS NASHYD       NHYD=["O-14"], DT=[1]min, AREA=[5](ha),
```

```
                        DWF=[0](cms), CN/C=[82], IA=[7.5](mm), N=[3], TP=[0.133]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 7 - JOCK RIVER
* 2020-12-01 To Foster Drain
* 2020-12-01  replace ("PT7JR") by ("OKEEFE")
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["OKEEFE"], NHYDs to add=["O-14Ch"+"O-14"]
*%----------------|-------------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["OKEEFE"], DT=[1](min), AREA=[448](ha),
*                       XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[77],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                               LGI=[1728](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*#*****************************************************************************
*#    Okeefe Pond
*#    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#      and a ratio of the catchment area to the West Clarke pond rating curve
*#      from the MSS for the next coordinates
*#*****************************************************************************
*ROUTE RESERVOIR     NHYDout=["P_OKE"], NHYDin=["OKEEFE"],
*                       RDT=[1](min),
*                            TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [    0.0   ,   0.0]
*                                    [   14.13  ,  13.0]
*                                    [    -1    ,   -1  ]  (maximum one hundred pairs of points)
*                                    NHYDovf=["ok-OVF"],
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-D2" and "S-1-D3" are part of S-1 sub-catchment. They are moved to drain before station 6215 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-D2"], DT=[1](min), AREA=[18.67](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[352.798](m), MNI=[0.013], SCI=[0](min),

*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-D2"], DT=[1]min, AREA=[18.67](ha),
                        DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                        N=[3], TP=[1.120]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
```

```
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D2"], CINLET=[2.062](cms), NINLET=[1],
*                    MajNHYD=["S-1-D2J"]
*                    MinNHYD=["S-1-D2N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D2S"], NHYDs to add=["S-1-D2J"+"S-1-D2N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D2R"] ,NHYDin=["S-1-D2S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                (cms) - (ha-m)
*                              [ 0.0     , 0.0 ]
*                              [ 0.2231, 0.7445 ]
*                              [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D2Rovf"]
*%----------------|---------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D3"], DT=[1](min), AREA=[6.79](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
*                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                    LGI=[212.760](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-D3"], DT=[1]min, AREA=[6.79](ha),
                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                    N=[3], TP=[1.281]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D3"], CINLET=[0.719](cms), NINLET=[1],
*                    MajNHYD=["S-1-D3J"]
*                    MinNHYD=["S-1-D3N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D3S"], NHYDs to add=["S-1-D3J"+"S-1-D3N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D3R"] ,NHYDin=["S-1-D3S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                (cms) - (ha-m)
*                              [ 0.0     , 0.0 ]
*                              [ 0.0811, 0.2708 ]
*                              [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D3Rovf"]
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["SN_OK"], NHYDs to add=["N_OK"+"OKEEFE"+"S-1-D2"+"S-1-D3"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["SN_OK"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Okeefe Drain"]
*%----------------|---------------------------------------------------------|
*#
```

```
*# Hydrograph from Node Okeefe routed to Node at Foster Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
*#
ROUTE CHANNEL         NHYDout=["N_FO"] ,NHYDin=["SN_OK"] ,
                      RDT=[1](min),
                      CHLGTH=[1183](m),   CHSLOPE=[0.0761](%),
                                          FPSLOPE=[0.0761](%),
                      SECNUM=[1.0],         NSEG=[3]
                      ( SEGROUGH, SEGDIST (m))=
                        [0.050,-33.89
                        -0.035,31.59
                        0.050,34.41] NSEG times
                      ( DISTANCE (m), ELEVATION (m))=
                      [-794.18, 91.00]
                      [-775.41, 91.50]
                      [-702.63, 91.50]
                      [-546.19, 91.50]
                      [-529.54, 91.50]
                      [-323.44, 91.00]
                      [-320.71, 91.00]
                      [-183.59, 91.00]
                      [-182.54, 90.50]
                      [-181.36, 90.00]
                      [-177.37, 90.00]
                      [-87.70, 90.00]
                      [-33.89, 90.00]
                      [-18.52, 86.88]
                      [0.00,85.20]
                      [16.20, 86.83]
                      [31.59, 90.00]
                      [33.03, 90.50]
                      [34.41, 91.00]
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#    Catchment FOSTER
*#    - To Foster ditch (north of the Jock)
*#    - Partially developed (medium density); remaining agricultural
*#    - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study
Report, CH2MHILL, Aug 2013.
*#    - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after
increasing Okeefe drainage area to (513.02 HA) so the total drainage area remains the
same
*#    - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["FOSTER"], DT=[1]min, AREA=[325.44](ha),
                      XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
                      SCS curve number CN=[74],
                      Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                      Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                              LGI=[1472.956](m), MNI=[0.013], SCI=[0](min),
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                      SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[18](hrs),    END=-1
*#*****************************************************************************
*#    Foster Pond
*#    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#      and a ratio of the catchment area to the West Clarke pond rating curve
*#      from the MSS for the next coordinates
*#*****************************************************************************
ROUTE RESERVOIR       NHYDout=["P_FOS"],   NHYDin=["FOSTER"],
                      RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [    0.0 ,   0.0 ]
```

```
                                        [    10.34 ,  10]
                                        [    -1    ,  -1  ]  (max twenty pts)
                                NHYDovf=["FO-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["FOSTER-OUT"], NHYDs to add=["P_FOS"+"FO-OVF"]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
*     -Brazeau area from P 1800-19 =[71.751], change to 63.59 ha based on GIS measurements
*      -JFSA, 2021-01-19  update "W_CLAR_BRAZ" to 73.29 ha based on GIS measurements
*      -JFSA, 2021-01-22  Brazeau ("MS_P10"+"P10-OVF")brazeau pond discharges directly
to the jock river through a road side ditch on the west side of Borrisokane road
(station 6016)
CONTINUOUS STANDHYD NHYD=["W_CLAR_BRAZ"], DT=[1]min, AREA=[73.29](ha),
                    XIMP=[0.6], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[699.00](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
* 2020-12-01 correct pond curve values
ROUTE RESERVOIR     NHYDout=["MS_P10"],  NHYDin=["W_CLAR_BRAZ"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [    0.0 ,   0.0 ]
                                  [  0.068 ,  0.001 ]
                                  [  0.271 ,  0.022 ]
                                  [  0.379 ,  0.051 ]
                                  [   0.48 ,  0.091 ]
                                  [  0.853 ,  0.341 ]
                                  [  1.005 ,  0.61  ]
                                  [  1.128 ,  1.231 ]
                                  [  1.155 ,  1.592 ]
                                  [  1.194 ,  1.876 ]
                                  [  1.2   ,  1.921 ]
                                  [  1.259 ,  2.369 ]
                                  [  1.3   ,  2.665 ]
                                  [  1.349 ,  2.813 ]
                                  [    -1  ,    -1  ]  (max twenty pts)
                          NHYDovf=["P10-OVF"]
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D2" is a part of S-1 sub-catchment. It is moved to drain
before station 980 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[74],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                            LGI=[181.475](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                    N=[3], TP=[1.10]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-D2"], CINLET=[0.508](cms), NINLET=[1],
*                    MajNHYD=["S-1-FO-D2J"]
*                    MinNHYD=["S-1-FO-D2N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-FO-D2S"], NHYDs to add=["S-1-FO-D2J"+"S-1-FO-D2N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-FO-D2R"] ,NHYDin=["S-1-FO-D2S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values

*                                [ 0.0     , 0.0 ]
*                                [ 0.0590, 0.1970 ]
*                                [    -1   , -1    ]  (max twenty pts)
*                          NHYDovf=["S-1FOD2ovf"]
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["980"], NHYDs to add=["FOSTER-OUT"+"S-1-FO-D2"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["980"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Station 980 on Foster Drain"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Node Foster SWM (Station 980) to Node at station 520
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 980
*#
ROUTE CHANNEL       NHYDout=["980-out"] ,NHYDin=["980"] ,
                    RDT=[1](min),
                    CHLGTH=[460](m),   CHSLOPE=[0.04348](%),
                                         FPSLOPE=[0.04348](%),
                    SECNUM=[1.0],        NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.050, 45.90
                      -0.035, 53.30
                      0.050, 100] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [0, 91.75 ]
                    [42.4, 92.18 ]
                    [43.5, 92.16 ]
                    [44.1, 92.1 ]
                    [44.6, 92 ]
                    [44.8, 91.86 ]
                    [45.9, 91.04 ]
                    [46.4, 90.65 ]
                    [46.8, 90.36 ]
                    [47.9, 90.32 ]
                    [48.7, 90.35 ]
                    [50.7, 90.33 ]
                    [52.2, 90.38 ]
                    [52.5, 90.59 ]
                    [53.3, 91.28 ]
                    [54, 91.83 ]
                    [54.3, 92 ]
                    [54.8, 92.08 ]
                    [55.4, 92.12 ]
                    [100, 91.84 ]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D1" is a part of S-1 sub-catchment. It is moved to drain
before station 520 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
*                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
```

```
*                       SCS curve number CN=[74],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                               LGI=[184.572](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD     NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
                      DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                      N=[3], TP=[1.10]hrs,
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),
                      SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[12](hrs)
                      Baseflow simulation parameters:
                      BaseFlowOption=[1] ,
                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                      VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-FO-D1"], CINLET=[0.605](cms), NINLET=[1],
*                     MajNHYD=["S-1-FO-D1J"]
*                     MinNHYD=["S-1-FO-D1N"]
*                     TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-FO-D1S"], NHYDs to add=["S-1-FO-D1N"+"S-1-FO-D1J"]
*%-----------------|-------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1-FO-D1R"] ,NHYDin=["S-1-FO-D1S"] ,
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.0611, 0.2038 ]
*                                  [    -1   ,  -1    ]  (max twenty pts)
*                           NHYDovf=["S-1FOD1ovf"]
*%-----------------|-------------------------------------------------------|
ADD HYD              NHYDsum=["520"], NHYDs to add=["980-out"+"S-1-FO-D1"]
*%-----------------|-------------------------------------------------------|
SAVE HYD             NHYD=["520"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Sation 520 on Foster Drain"]
*%-----------------|-------------------------------------------------------|
*# Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock
River)
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 520
*#
ROUTE CHANNEL        NHYDout=["520-out"] ,NHYDin=["520"] ,
                     RDT=[1](min),
                     CHLGTH=[860](m),  CHSLOPE=[0.5872](%),
                                       FPSLOPE=[0.5872](%),
                     SECNUM=[1.0],       NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.050,45.90
                       -0.035,54.3
                       0.050,100.1097] NSEG times
                     ( DISTANCE (m), ELEVATION (m))=
                     [0, 91.26 ]
                     [44.9, 91.46 ]
                     [45.1, 91.37 ]
                     [45.9, 90.84 ]
                     [47, 90.32 ]
                     [47.5, 90.22 ]
                     [48, 90.17 ]
                     [50.7, 90.19 ]
                     [51.5, 90.17 ]
```

```
                        [52.2, 90.13 ]
                        [52.7, 90.12 ]
                        [53.3, 90.14 ]
                        [53.5, 90.31 ]
                        [53.9, 90.59 ]
                        [54.3, 90.87 ]
                        [54.7, 91.04 ]
                        [55.3, 91.24 ]
                        [55.5, 91.26 ]
                        [63.7, 91.37 ]
                        [100.1097, 91.43 ]
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-F-D" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                       XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[74],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                               LGI=[315.806](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                    N=[3], TP=[1.007]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-F-D"], CINLET=[1.749](cms), NINLET=[1],
*                    MajNHYD=["S-1FO-F-DJ"]
*                    MinNHYD=["S-1FO-F-DN"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1FO-F-DS"], NHYDs to add=["S-1FO-F-DJ"+"S-1FO-F-DN"]
*%----------------|---------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1FO-F-DR"] ,NHYDin=["S-1FO-F-DS"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.1788, 0.5966 ]
*                                  [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1FoFDovf"]
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-D8" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*   -JFSA 2021-03-02  "S-1-D8" is Borrisokane Rd. so it will remain STANDHYD in all scenarios
CONTINUOUS STANDHYD NHYD=["S-1-D8"], DT=[1](min), AREA=[5.27](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[187.439](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*  This is a road so it is always STANDHYD
*CONTINUOUS NASHYD    NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha),
*                     DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                     N=[3], TP=[1.10]hrs,
*                     Continuous simulation parameters:
*                     IaRECper=[4](hrs),
*                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                     InterEventTime=[12](hrs)
*                     Baseflow simulation parameters:
*                     BaseFlowOption=[1] ,
*                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D8"], CINLET=[2.279](cms), NINLET=[1],
*                     MajNHYD=["S-1-D8J"]

*                     TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D8S"], NHYDs to add=["S-1-D8J"+"S-1-D8N"]
*%----------------|---------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D"], NHYDs to add=["S-1-Okeefe"+"S-1"+"S-1-Fost"]
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D"], CINLET=[11.616](cms), NINLET=[1],
*                     MajNHYD=["S-1-D-MJ"]
*                     MinNHYD=["S-1-D-MN"]
*                     TMISTO=[5974](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-DEV"], NHYDs to add=["S-1-D-MJ"+"S-1-D-MN"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1-D8R"] ,NHYDin=["S-1-D8S"] ,
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                 [ 0.0     , 0.0 ]
*                                 [ 0.0630, 0.2102 ]
*                                 [    -1   ,  -1    ]  (max twenty pts)
*                           NHYDovf=["S-1-D8Rovf"]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-A" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
CONTINUOUS NASHYD    NHYD=["S-1-A"], DT=[1]min, AREA=[75.88](ha),
                     DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
                     N=[3], TP=[0.619]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*     -JFSA, 2021-01-22  "W_CLAR_UNDE" (west of Clarke sub-catchment) discharges directly to the jock river through a road side ditch on the west side of Borrisokane road (station 6016)
CONTINUOUS NASHYD    NHYD=["W_CLAR_UNDE"], DT=[1]min, AREA=[35.65](ha),
                     DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
                     N=[3], TP=[1.10]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
```

```
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_FO"], NHYDs to
add=["N_FO"+"520-out"+"MS_P10"+"P10-OVF"+"W_CLAR_UNDE"+"S-1-FO-F-D"+"S-1-D8"+"S-1-A"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["SN_FO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Foster Drain"]
*%----------------|---------------------------------------------------------|
*# Hydrograph from Node Foster routed to Node at Cedarview Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
*#
ROUTE CHANNEL           NHYDout=["N_CE"] ,NHYDin=["SN_FO"] ,
                        RDT=[1](min),
                        CHLGTH=[159](m),   CHSLOPE=[0.0818](%),
                                             FPSLOPE=[0.0818](%),
                        SECNUM=[1.0],          NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-15.46
                          -0.035,26.55
                          0.050,116.76] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-645.23,  91.50]
                        [-391.20,  91.50]
                        [-91.00,  91.50]
                        [-85.52,  91.50]
                        [-15.46,  89.40]
                        [-9.79,  89.31]
                        [-3.22,  86.24]
                        [3.22,  85.07]
                        [10.96,  85.79]
                        [16.44,  86.49]
                        [26.55,  89.45]
                        [29.03,  90.27]
                        [35.76,  90.67]
                        [36.67,  91.00]
                        [108.08,  91.00]
                        [109.82,  90.50]
                        [112.04,  90.50]
                        [114.62,  91.00]
                        [116.76,  91.50]
*%----------------|---------------------------------------------------------|
*#************************************************************************
*#    Catchment S-1
*#    - To Jock River (north and south of Jock)
*#    - Primarily agricultural fields; portion of sand quarry
*%----------------|---------------------------------------------------------|
*%    -2020-12-17 "S-1-Undev" and "S-1-Fost" was a part of Foster drain, they are below
the foster pond. Now they are added to S-1 subcatchment based on Project 1474-BCDC,
JFSA, Nov. 2020
*%    -2020-12-17 Change O-14 (it was part of Okeefe drain) to "S-1-Okeefe" and add it
to S-1 subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -2020-12-17 Add "S-1-BCDC" as NASHYD
*%    -2020-12-17 all other S-1 subcatchment as STANDHYD with DUALHYD and ROUTE RESERVOIR
*%----------------|---------------------------------------------------------|
*#************************************************************************
*   -JFSA 2021-02-26  "S-1-A" is a part of S-1 sub-catchment. It is moved to drain
before station 6016 on Jock River
*CONTINUOUS NASHYD       NHYD=["S-1-A"], DT=[1]min, AREA=[75.88](ha),
*                        DWF=[0](cms), CN/C=[77],   IA=[4.67](mm),
*                        N=[3], TP=[0.619]hrs,
*                        Continuous simulation parameters:
*                        IaRECper=[4](hrs),
*                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD     NHYD=["S-1-B"], DT=[1]min, AREA=[55.36](ha),
                      DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
                      N=[3], TP=[0.451]hrs,
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),
                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[12](hrs)
                      Baseflow simulation parameters:
                      BaseFlowOption=[1] ,
                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                      VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*#    -  JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B. Change their TP values based on the new areas compared to the old ones.
*CONTINUOUS NASHYD     NHYD=["S-1-BCDC"], DT=[1]min, AREA=[134.9](ha),
*                      DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                      N=[3], TP=[1.10]hrs,
*                      Continuous simulation parameters:
*                      IaRECper=[4](hrs),
*                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                      InterEventTime=[12](hrs)
*                      Baseflow simulation parameters:
*                      BaseFlowOption=[1] ,
*                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                      VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*#    -  JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and "S-1-BCDC-2" is part of "S-1-D2" and "S-1-D3"
*CONTINUOUS NASHYD     NHYD=["S-1-BCDC-1"], DT=[1]min, AREA=[0.3](ha),
*                      DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                      N=[3], TP=[1.10]hrs,
*                      Continuous simulation parameters:
*                      IaRECper=[4](hrs),
*                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                      InterEventTime=[12](hrs)
*                      Baseflow simulation parameters:
*                      BaseFlowOption=[1] ,
*                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                      VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD     NHYD=["S-1-BCDC-2"], DT=[1]min, AREA=[1.3](ha),
*                      DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                      N=[3], TP=[1.10]hrs,
*                      Continuous simulation parameters:
*                      IaRECper=[4](hrs),
*                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                      InterEventTime=[12](hrs)
*                      Baseflow simulation parameters:
*                      BaseFlowOption=[1] ,
*                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                      VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*#    -  JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
*CONTINUOUS NASHYD     NHYD=["S-1-BCDC-3"], DT=[1]min, AREA=[3.9](ha),
*                      DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                      N=[3], TP=[1.10]hrs,
*                      Continuous simulation parameters:
*                      IaRECper=[4](hrs),
*                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|---------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-Okeefe" is a part of S-1 sub-catchment. It is moved to drain before station 7245 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-Okeefe"], DT=[1](min), AREA=[44.93](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[547.296](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%-----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-Okeefe"], CINLET=[4.796](cms), NINLET=[1],
*                       MajNHYD=["S-1-OkMJ"]
*                       MinNHYD=["S-1-OkMN"]
*                       TMISTO=[9999999](cu-m)
*%-----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-OkS"], NHYDs to add=["S-1-OkMJ"+"S-1-OkMN"]
*%-----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-OkSR"] ,NHYDin=["S-1-OkS"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                    [ 0.0     , 0.0 ]
*                                    [ 0.5370, 1.7917 ]
*                                    [    -1   ,  -1    ]  (max twenty pts)
*                             NHYDovf=["S-1-OkSovf"]
*%-----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-Okeefe"], DT=[1]min, AREA=[44.93](ha),
*                       DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.049]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D1" is a part of S-1 sub-catchment. It is moved to drain before station 520 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
*                       XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[74],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                               LGI=[184.572](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%-----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-D1"], CINLET=[0.605](cms), NINLET=[1],
*                       MajNHYD=["S-1-FO-D1J"]
*                       MinNHYD=["S-1-FO-D1N"]
*                       TMISTO=[9999999](cu-m)
```

```
*%----------------|---------------------------------------------------------|
*ADD HYD          NHYDsum=["S-1-FO-D1S"], NHYDs to add=["S-1-FO-D1N"+"S-1-FO-D1J"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR  NHYDout=["S-1-FO-D1R"] ,NHYDin=["S-1-FO-D1S"] ,
*                 RDT=[1](min),
*                       TABLE of ( OUTFLOW-STORAGE ) values
*                                 (cms) - (ha-m)
*                              [ 0.0     , 0.0 ]
*                              [ 0.0611, 0.2038 ]
*                              [    -1   ,  -1    ]  (max twenty pts)
*                       NHYDovf=["S-1FOD1ovf"]
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD  NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
*                 DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                 N=[3], TP=[1.10]hrs,
*                 Continuous simulation parameters:
*                 IaRECper=[4](hrs),
*                 SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                 InterEventTime=[12](hrs)
*                 Baseflow simulation parameters:
*                 BaseFlowOption=[1] ,
*                 InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                 VHydCond=[0.055](mm/hr),   END=-1
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D2" is a part of S-1 sub-catchment. It is moved to drain before station 980 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                 XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
*                 SCS curve number CN=[74],
*                 Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                         LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                 Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                         LGI=[181.475](m), MNI=[0.013], SCI=[0](min),
*                 Continuous simulation parameters:
*                 IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                 SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                 InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD  NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                 DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                 N=[3], TP=[1.10]hrs,
*                 Continuous simulation parameters:
*                 IaRECper=[4](hrs),
*                 SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                 InterEventTime=[12](hrs)
*                 Baseflow simulation parameters:
*                 BaseFlowOption=[1] ,
*                 InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                 VHydCond=[0.055](mm/hr),   END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD   NHYDin=["S-1-FO-D2"], CINLET=[0.508](cms), NINLET=[1],
*                 MajNHYD=["S-1-FO-D2J"]
*                 MinNHYD=["S-1-FO-D2N"]
*                 TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD          NHYDsum=["S-1-FO-D2S"], NHYDs to add=["S-1-FO-D2J"+"S-1-FO-D2N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR  NHYDout=["S-1-FO-D2R"] ,NHYDin=["S-1-FO-D2S"] ,
*                 RDT=[1](min),
*                       TABLE of ( OUTFLOW-STORAGE ) values
*                                 (cms) - (ha-m)
*                              [ 0.0     , 0.0 ]
*                              [ 0.0590, 0.1970 ]
*                              [    -1   ,  -1    ]  (max twenty pts)
*                       NHYDovf=["S-1FOD2ovf"]
*%----------------|---------------------------------------------------------|
```

```
*   -JFSA 2021-02-26 "S-1-FO-F-D" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[74],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                            LGI=[315.806](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.007]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-F-D"], CINLET=[1.749](cms), NINLET=[1],
*                    MajNHYD=["S-1FO-F-DJ"]
*                    MinNHYD=["S-1FO-F-DN"]
*                    TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1FO-F-DS"], NHYDs to add=["S-1FO-F-DJ"+"S-1FO-F-DN"]
*%-----------------|-------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1FO-F-DR"] ,NHYDin=["S-1FO-F-DS"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                [ 0.0     , 0.0 ]
*                                [ 0.1788, 0.5966 ]
*                                [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1FoFDovf"]
*%-----------------|-------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D1"], DT=[1](min), AREA=[21.67](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                    LGI=[380.088](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-D1"], DT=[1]min, AREA=[21.67](ha),
                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                    N=[3], TP=[1.066]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
```

```
*COMPUTE DUALHYD      NHYDin=["S-1-D1"], CINLET=[2.482](cms), NINLET=[1],
*                     MajNHYD=["S-1-D1J"]
*                     MinNHYD=["S-1-D1N"]
*                     TMISTO=[9999999](cu-m)
*%-----------------|---------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D1S"], NHYDs to add=["S-1-D1J"+"S-1-D1N"]
*%-----------------|---------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1-D1R"] ,NHYDin=["S-1-D1S"] ,
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.2590, 0.8642 ]
*                                  [    -1   ,   -1    ]  (max twenty pts)
*                           NHYDovf=["S-1-D1Rovf"]
*%-----------------|---------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-D2" and "S-1-D3" are part of S-1 sub-catchment. They are moved to drain before station 6215 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-D2"], DT=[1](min), AREA=[18.67](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                     LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                     LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                     LGI=[352.798](m), MNI=[0.013], SCI=[0](min),
*                     Continuous simulation parameters:
*                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                     InterEventTime=[12](hrs),   END=-1
*%-----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D2"], DT=[1]min, AREA=[18.67](ha),
*                     DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                     N=[3], TP=[1.120]hrs,
*                     Continuous simulation parameters:
*                     IaRECper=[4](hrs),
*                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                     InterEventTime=[12](hrs)
*                     Baseflow simulation parameters:
*                     BaseFlowOption=[1] ,
*                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                     VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|---------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D2"], CINLET=[2.062](cms), NINLET=[1],
*                     MajNHYD=["S-1-D2J"]
*                     MinNHYD=["S-1-D2N"]
*                     TMISTO=[9999999](cu-m)
*%-----------------|---------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D2S"], NHYDs to add=["S-1-D2J"+"S-1-D2N"]
*%-----------------|---------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1-D2R"] ,NHYDin=["S-1-D2S"] ,
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.2231, 0.7445 ]
*                                  [    -1   ,   -1    ]  (max twenty pts)
*                           NHYDovf=["S-1-D2Rovf"]
*%-----------------|---------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D3"], DT=[1](min), AREA=[6.79](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                     LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                     LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                     LGI=[212.760](m), MNI=[0.013], SCI=[0](min),
*                     Continuous simulation parameters:
```

```
*                       IaRECper=[4](hrs),   IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD      NHYD=["S-1-D3"], DT=[1]min, AREA=[6.79](ha),
*                       DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                       N=[3], TP=[1.281]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["S-1-D3"], CINLET=[0.719](cms), NINLET=[1],
*                       MajNHYD=["S-1-D3J"]
*                       MinNHYD=["S-1-D3N"]
*                       TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-D3S"], NHYDs to add=["S-1-D3J"+"S-1-D3N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-D3R"] ,NHYDin=["S-1-D3S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                        (cms) - (ha-m)
*                                      [ 0.0      , 0.0 ]
*                                      [ 0.0811, 0.2708 ]
*                                      [    -1    , -1     ]  (max twenty pts)
*                             NHYDovf=["S-1-D3Rovf"]
*%----------------|---------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D4"], DT=[1](min), AREA=[3.28](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[147.874](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),   IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["S-1-D4"], DT=[1]min, AREA=[3.28](ha),
                        DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
                        N=[3], TP=[1.10]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["S-1-D4"], CINLET=[0.373](cms), NINLET=[1],
*                       MajNHYD=["S-1-D4J"]
*                       MinNHYD=["S-1-D4N"]
*                       TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-D4S"], NHYDs to add=["S-1-D4J"+"S-1-D4N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-D4R"] ,NHYDin=["S-1-D4S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
```

```
*                                          (cms) - (ha-m)
*                                        [ 0.0      , 0.0 ]
*                                        [ 0.0392,  0.1308 ]
*                                        [     -1   ,   -1     ]  (max twenty pts)
*                                NHYDovf=["S-1-D4Rovf"]
*%-----------------|---------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D5"], DT=[1](min), AREA=[12.84](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),


*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[292.57](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%-----------------|---------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["S-1-D5"], DT=[1]min, AREA=[12.84](ha),
                     DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
                     N=[3], TP=[1.10]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|---------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D5"], CINLET=[1.395](cms), NINLET=[1],
*                     MajNHYD=["S-1-D5J"]
*                     MinNHYD=["S-1-D5N"]
*                     TMISTO=[9999999](cu-m)
*%-----------------|---------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D5S"], NHYDs to add=["S-1-D5J"+"S-1-D5N"]
*%-----------------|---------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1-D5R"] ,NHYDin=["S-1-D5S"] ,
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                          (cms) - (ha-m)
*                                        [ 0.0      , 0.0 ]

*                                        [     -1   ,   -1     ]  (max twenty pts)
*                                NHYDovf=["S-1-D5Rovf"]
*%-----------------|---------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D6"], DT=[1](min), AREA=[1.75](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[108.01](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%-----------------|---------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["S-1-D6"], DT=[1]min, AREA=[1.75](ha),
                     DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
                     N=[3], TP=[1.10]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
```

```
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D6"], CINLET=[0.218](cms), NINLET=[1],
*                    MajNHYD=["S-1-D6J"]
*                    MinNHYD=["S-1-D6N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D6S"], NHYDs to add=["S-1-D6J"+"S-1-D6N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D6R"] ,NHYDin=["S-1-D6S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                (cms) - (ha-m)
*                             [ 0.0     , 0.0 ]
*                             [ 0.0209, 0.0698 ]
*                             [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D6Rovf"]
*%----------------|---------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D7"], DT=[1](min), AREA=[2.03](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),


*                    LGI=[116.33](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["S-1-D7"], DT=[1]min, AREA=[2.03](ha),
                     DWF=[0](cms), CN/C=[77],   IA=[4.67](mm),
                     N=[3], TP=[1.10]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D7"], CINLET=[2.279](cms), NINLET=[1],
*                    MajNHYD=["S-1-D7J"]
*                    MinNHYD=["S-1-D7N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D7S"], NHYDs to add=["S-1-D7J"+"S-1-D7N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D7R"] ,NHYDin=["S-1-D7S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                (cms) - (ha-m)
*                             [ 0.0     , 0.0 ]
*                             [ 0.0243, 0.0810 ]
*                             [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D8Rovf"]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-D8" is a part of S-1 sub-catchment. It is moved to drain
before station 6016 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-D8"], DT=[1](min), AREA=[5.27](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
```

```
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[187.439](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D8"], CINLET=[2.279](cms), NINLET=[1],
*                       MajNHYD=["S-1-D8J"]
*                       MinNHYD=["S-1-D8N"]
*                       TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D8S"], NHYDs to add=["S-1-D8J"+"S-1-D8N"]
*%-----------------|-------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D"], NHYDs to add=["S-1-Okeefe"+"S-1"+"S-1-Fost"]
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D"], CINLET=[11.616](cms), NINLET=[1],
*                       MajNHYD=["S-1-D-MJ"]
*                       MinNHYD=["S-1-D-MN"]
*                       TMISTO=[5974](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-DEV"], NHYDs to add=["S-1-D-MJ"+"S-1-D-MN"]
*%-----------------|-------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1-D8R"] ,NHYDin=["S-1-D8S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [ 0.0     , 0.0 ]
*                                    [ 0.0630, 0.2102 ]
*                                    [    -1   ,  -1    ]  (max twenty pts)
*                             NHYDovf=["S-1-D8Rovf"]
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
*       -JFSA 2021-02-08 Clarke (MS_P2 and P2-OVF) and Clarke Undeveloped area
(W_CLAR_UNDE) drain to Jock River at Station 5002 instead of Station 4534
*#    Catchment W_CLAR
*#    - To West Clarke Drain (south of the Jock)
*#    - Subdivision with 43% imp. as per Barrhaven South MSS
*#    - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on
P598(04)-11
*#    - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL
*#########################################################################
CONTINUOUS STANDHYD NHYD=["W_CLAR_MJ"], DT=[1]min, AREA=[1.772](ha),
                    XIMP=[0.46], TIMP=[0.59], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[109](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
```

```
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["W_CLAR_MI"], CINLET=[0.213](cms), NINLET=[1],
*                    MajNHYD=["W_CLAR_MIj"]
*                    MinNHYD=["W_CLAR_MIn"]
*                    TMISTO=[0.1](cu-m)
*%----------------|-------------------------------------------------------------|
*# 5-Year + 12% Capture
ROUTE RESERVOIR      NHYDout=["W_CLAR_MIn"] ,NHYDin=["W_CLAR_MI"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.0      , 0.0 ]
                                    [ 0.213 , 0.0001 ]
                                    [    -1    ,   -1    ]  (max twenty pts)
                           NHYDovf=["W_CLAR_MIj"] ,
*%----------------|-------------------------------------------------------------|
*     -Clarke_All area from P 598(04)-11 = 120.207 ha, change to 127.298 ha based on
GIS measurements,
*     -JFSA, 2021-01-19  update W_CLAR_ALL to (121.17-1.772=119.398) ha based on GIS
measurements W_CLAR is 121.17 ha and W_CLAR_MI is 1.772 ha
CONTINUOUS STANDHYD NHYD=["W_CLAR_ALL"], DT=[1]min, AREA=[119.398](ha),
                     XIMP=[0.60], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                     SCS curve number CN=[77],
                     Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                     Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[892.18](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["W_CLAR"], NHYDs to add=["W_CLAR_ALL"+"W_CLAR_MIj"]
*%----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["W_CLAR"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                     HYD_COMMENT=["Total Flows to West Clarke"]
*#####################################################################
*#    West Clarke Pond 2
*#    - Rating curve obtained from Barrhaven South MSS modeling
*#    - Tributary Drainage Area to MSS Pond 2 = 241 ha
*#####################################################################
ROUTE RESERVOIR      NHYDout=["MS_P2"],  NHYDin=["W_CLAR"],
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [   0.0 ,   0.0 ]
                                    [ 0.128 , 0.161 ]
                                    [ 0.138 , 0.409 ]
                                    [ 0.148 , 0.68 ]
                                    [ 0.227 , 0.931 ]
                                    [ 0.354 , 1.223 ]
                                    [ 0.505 , 1.52 ]
                                    [ 0.666 , 1.821 ]
                                    [ 0.831 , 2.123 ]
                                    [ 0.995 , 2.434 ]
                                    [ 1.069 , 2.583 ]
                                    [ 1.51 , 2.647 ]
                                    [ 4.904 , 2.861 ]
                                    [ 13.048 , 3.188 ]
                                    [ 23.745 , 3.523 ]
                                    [ 36.474 , 3.871 ]
                                    [ 45.938 , 4.127 ]
                                    [ 61.652 , 4.539 ]
                                    [   -1   ,   -1   ]  (max twenty pts)
                           NHYDovf=["P2-OVF"]
*%----------------|-------------------------------------------------------------|
```

```
*#**************************************************************************
*     -JFSA, 2021-01-22  "W_CLAR_UNDE" (west of Clarke sub-catchment) discharges directly to the jock river through a road side ditch on the west side of Borrisokane road (station 6016)
*CONTINUOUS NASHYD   NHYD=["W_CLAR_UNDE"], DT=[1]min, AREA=[35.65](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_CE"], NHYDs to add=["N_CE"+
                     +"S-1-D4"+"S-1-D5"+"MS_P2"+"P2-OVF"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["SN_CE"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows before Station 5737 on Jock River"]
*%----------------|-------------------------------------------------------------|
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
*# JFSA 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model
T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\HEC-RAS\JockLidar2005
*# JFSA 2021-03-02  change the slope to 0.1% instead of 0.0175 to stabilize the model
ROUTE CHANNEL       NHYDout=["5737"] ,NHYDin=["SN_CE"] ,
                    RDT=[1](min),
                    CHLGTH=[270](m),   CHSLOPE=[0.0175](%),
                                         FPSLOPE=[0.0175](%),
                    SECNUM=[1.0],          NSEG=[3]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.050,-24.04
                      -0.035,23.92
                      0.050,1130.8] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                    [-1060.52, 94 ]
                    [-268.6, 91.5 ]
                    [-259.43, 91.5 ]
                    [-179.48, 91.5 ]
                    [-67.9, 91.5 ]
                    [-59.21, 91.5 ]
                    [-33.19, 91 ]
                    [-26.08, 90.5 ]
                    [-24.04, 90 ]
                    [-13.14, 86.77 ]
                    [0, 85 ]
                    [14.68, 86.74 ]
                    [23.92, 90 ]
                    [25.78, 90.5 ]
                    [31.91, 91 ]
                    [91.95, 91.5 ]
                    [772.15, 92 ]
                    [961.49, 92.5 ]
                    [1044.69, 93 ]
                    [1130.8, 95 ]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["5002"], NHYDs to add=["5737"+
                     +"S-1-D1"+"S-1-D6"+"S-1-D7"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["5002"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows before Station 5002 on Jock River"]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
```

```
*# JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*# JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model will be more stable
*# JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m  That is because of adding station 5737 between station 6016 and station 5002. Then the length from station 5737 to station 5002 is 736 m  Change the slope from 0.0255 % to 0.09511 %
*
ROUTE CHANNEL          NHYDout=["N_WCa"] ,NHYDin=["5002"] ,
                       RDT=[1](min),
                       CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                                FPSLOPE=[0.09511](%),
                       SECNUM=[1.0],            NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.050,-37.5
                         -0.035,37.50
                         0.050,157.05] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-601.81, 91.5]
                       [-37.50, 90.00]
                       [-19.61, 87.04]
                       [0.00, 85.70]
                       [14.87, 86.93]
                       [37.50, 90.00]
                       [38.54, 90.50]
                       [42.23, 91]
                       [157.05,91.50]
*                       [161.44, 91.50]
*                       [236.48, 93.00]
*                       [385.47, 92.50]
*                       [390.78, 92.50]
*%-----------------|-------------------------------------------------------------|
ROUTE CHANNEL          NHYDout=["N_WCb"] ,NHYDin=["N_WCa"] ,
                       RDT=[1](min),
                       CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                                FPSLOPE=[0.09511](%),
                       SECNUM=[1.0],            NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.050,-37.5
                         -0.035,37.50
                         0.050,157.05] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-601.81, 91.5]
                       [-37.50, 90.00]
                       [-19.61, 87.04]
                       [0.00, 85.70]
                       [14.87, 86.93]
                       [37.50, 90.00]
                       [38.54, 90.50]
                       [42.23, 91]
                       [157.05,91.50]
*%-----------------|-------------------------------------------------------------|
ROUTE CHANNEL          NHYDout=["N_WC"] ,NHYDin=["N_WCb"] ,
                       RDT=[1](min),
                       CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                                FPSLOPE=[0.09511](%),
                       SECNUM=[1.0],            NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.050,-37.5
                         -0.035,37.50
                         0.050,157.05] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-601.81, 91.5]
                       [-37.50, 90.00]
                       [-19.61, 87.04]
```

```
                        [0.00, 85.70]
                        [14.87, 86.93]
                        [37.50, 90.00]
                        [38.54, 90.50]
                        [42.23, 91]
                        [157.05,91.50]
*#*************************************************************************
*       -JFSA 2021-02-08 Clarke (MS_P2 and P2-OVF) and Clarke Undeveloped area (W_CLAR_UNDE) drain to Jock River at Station 5002 instead of Station 4534
*ADD HYD                NHYDsum=["SN_WC"], NHYDs to add=["MS_P2"+"P2-OVF"+"N_WC"+"W_CLAR_UNDE"]
*%----------------|-------------------------------------------------------|
*SAVE HYD               NHYD=["SN_WC"],    # OF PCYCLES=[-1],  ICASEsh=[1]
*                      HYD_COMMENT=["Total Flows at West Clarke Pond Outlet"]
*%----------------|-------------------------------------------------------|
*# Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
*#
ROUTE CHANNEL          NHYDout=["N_KB"] ,NHYDin=["N_WC"] ,
                       RDT=[1](min),
                       CHLGTH=[1020](m),   CHSLOPE=[0.0498](%),
                                            FPSLOPE=[0.0498](%),
                       SECNUM=[1.0],        NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.050,-23.63
                         -0.035,23.63
                         0.050,728.3] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-1082.01,94]
                       [-1028.17,92.5]
                       [-992.3,93.5]
                       [-279.34,90]
                       [-23.63,90]
                       [-13.45,87.13]
                       [-0.07,86.24]
                       [10.54,87.15]
                       [23.63,90]
                       [24.86,90.5]
                       [26.72,91]
                       [45.07,91.5]
                       [128.17,91.5]
                       [270.7,92.5]
                       [728.3,95]
*%----------------|-------------------------------------------------------|
*#*************************************************************************
*#    Catchment KEN_BU
*#    - To Kennedy-Burnett SWM Facility
*#    - Outlets to Fraser-Clarke drain (north of the Jock)
*#    - Medium density residential subdivision
*     - Add Kennedy Burnett model (Convert PCSWMM from NOVATECH June, 2020 to SWMHYMO)
*#*************************************************************************
*CONTINUOUS STANDHYD NHYD=["KEN_BU"], DT=[1]min, AREA=[281](ha),
*                      XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
*                      SCS curve number CN=[71],
*                      Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                      Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                              LGI=[1369](m), MNI=[0.013], SCI=[0](min),
*                      Continuous simulation parameters:
*                      IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                      InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------|
*#*************************************************************************
*#   Existing Kennedy-Burnett SWM Facility
*#    - Rating curve obtained from URTKBP
```

```
*#     - Tributary Drainage Area to Pond = 160 ha
*#*************************************************************************
*ROUTE RESERVOIR      NHYDout=["KEN_P"],   NHYDin=["KEN_BU"],
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [    0.0 ,  0.0 ]
*                                    [    0.13 , 0.26]
*                                    [    0.43 , 0.56]
*                                    [    0.67 , 0.90]
*                                    [    0.86 , 1.32]
*                                    [    1.01 , 1.79]
*                                    [    1.15 , 2.33]
*                                    [    -1   ,  -1  ]  (max twenty pts)
*                           NHYDovf=["KEN-OV"]
*%-----------------|-------------------------------------------------------|
*      -JFSA, 2021-01-19  update all KEN_BU areas based on GIS measurements
CONTINUOUS STANDHYD NHYD=["KB-01A"], DT=[1]min, AREA=[40.82](ha), XIMP=[0.097],
TIMP=[0.4], DWF=[0](cms), LOSS=[1]:
                     Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                     F=[0.00](mm),
                     Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[40](m),
                     MNP=[0.250], SCP=[0](min),
                     Impervious areas: IAimp=[0.785](mm), SLPI=[0.5](%),
                     LGI=[521.664](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                     END=-1
*%-----------------|-------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["KB-01A"], CINLET=[3.6](cms), NINLET=[1],
                     MajNHYD=["KB-01A-MJ"]
                     MinNHYD=["KB-01A-MN"]
                     TMISTO=[4995](cu-m)
*%-----------------|-------------------------------------------------------|
ADD HYD              NHYDsum=["KB-01A-S"], NHYDs to add=["KB-01A-MJ"+"KB-01A-MN"]
*%-----------------|-------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-01B"], DT=[1]min, AREA=[31.1](ha), XIMP=[0.1875],
TIMP=[0.375], DWF=[0](cms), LOSS=[1]:
                     Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                     F=[0.00](mm),
                     Pervious   areas: IAper=[4.67](mm), SLPP=[0.42](%), LGP=[40](m),
                     MNP=[0.250], SCP=[0](min),
                     Impervious areas: IAimp=[0.785](mm), SLPI=[0.42](%),
                     LGI=[455.339](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                     END=-1
*%-----------------|-------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["KB-01B"], CINLET=[1.585](cms), NINLET=[1],
                     MajNHYD=["KB-01B-MJ"]
                     MinNHYD=["KB-01B-MN"]
                     TMISTO=[6075](cu-m)
*%-----------------|-------------------------------------------------------|
ADD HYD              NHYDsum=["KB-01B-S"], NHYDs to add=["KB-01B-MJ"+"KB-01B-MN"]
*%-----------------|-------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-01C"], DT=[1]min, AREA=[13.78](ha), XIMP=[0.2045],
TIMP=[0.409], DWF=[0](cms), LOSS=[1]:
                     Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                     F=[0.00](mm),
                     Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                     MNP=[0.250], SCP=[0](min),
                     Impervious areas: IAimp=[0.785](mm), SLPI=[0.5](%),
                     LGI=[303.095](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                     END=-1
```

```
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-01C"], CINLET=[1.35](cms), NINLET=[1],
                    MajNHYD=["KB-01C-MJ"]
                    MinNHYD=["KB-01C-MN"]
                    TMJSTO=[1880](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-01C-S"], NHYDs to add=["KB-01C-MJ"+"KB-01C-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-03"], DT=[1]min, AREA=[84.78](ha), XIMP=[0.197],
TIMP=[0.394], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.785](mm), SLPI=[0.63](%),
                    LGI=[751.798](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-03"], CINLET=[5.27](cms), NINLET=[1],
                    MajNHYD=["KB-03-MJ"]
                    MinNHYD=["KB-03-MN"]
                    TMJSTO=[15500](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-03-S"], NHYDs to add=["KB-03-MJ"+"KB-03-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-04"], DT=[1]min, AREA=[6.95](ha), XIMP=[0.85],
TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.942](mm), SLPI=[0.5](%),
                    LGI=[215.252](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-04"], CINLET=[0.503](cms), NINLET=[1],
                    MajNHYD=["KB-04-MJ"]
                    MinNHYD=["KB-04-MN"]
                    TMJSTO=[1972](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-04-S"], NHYDs to add=["KB-04-MJ"+"KB-04-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-05"], DT=[1]min, AREA=[5.19](ha), XIMP=[0.93],
TIMP=[0.93], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[186.011](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-06"], DT=[1]min, AREA=[12.93](ha), XIMP=[0.873],
TIMP=[0.873], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.942](mm), SLPI=[4.75](%),
```

```
                        LGI=[293.598](m), MNI=[0.013], SCI=[0](min),
3210                    Continuous simulation parameters:
3211                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3212    *%--------------|-------------------------------------------------------------|
3213    COMPUTE DUALHYD     NHYDin=["KB-06"], CINLET=[2.262](cms), NINLET=[1],
3214                        MajNHYD=["KB-06-MJ"]
3215                        MinNHYD=["KB-06-MN"]
3216                        TMJSTO=[1950](cu-m)
3217    *%--------------|-------------------------------------------------------------|
3218    ADD HYD             NHYDsum=["KB-06-S"], NHYDs to add=["KB-06-MJ"+"KB-06-MN"]
3219    *%--------------|-------------------------------------------------------------|
3220    CONTINUOUS STANDHYD NHYD=["KB-11"], DT=[1]min, AREA=[4.03](ha), XIMP=[0.675],
        TIMP=[0.675], DWF=[0](cms), LOSS=[1]:
3221                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3222                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3223                        Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[163.911](m), MNI=[0.013], SCI=[0](min),
3224                    Continuous simulation parameters:
3225                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3226    *%--------------|-------------------------------------------------------------|
3227    COMPUTE DUALHYD     NHYDin=["KB-11"], CINLET=[0.5773](cms), NINLET=[1],
3228                        MajNHYD=["KB-11-MJ"]
3229                        MinNHYD=["KB-11-MN"]
3230                        TMJSTO=[597](cu-m)
3231    *%--------------|-------------------------------------------------------------|
3232    ADD HYD             NHYDsum=["KB-11-S"], NHYDs to add=["KB-11-MJ"+"KB-11-MN"]
3233    *%--------------|-------------------------------------------------------------|
3234    CONTINUOUS STANDHYD NHYD=["S1"], DT=[1]min, AREA=[4.99](ha), XIMP=[0.93], TIMP=[0.93],
        DWF=[0](cms), LOSS=[1]:
3235                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3236                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3237                        Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                        LGI=[182.392](m), MNI=[0.013], SCI=[0](min),
3238                    Continuous simulation parameters:
3239                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3240    *%--------------|-------------------------------------------------------------|
3241    CONTINUOUS STANDHYD NHYD=["KB-15"], DT=[1]min, AREA=[2.15](ha), XIMP=[0.79],
        TIMP=[0.79], DWF=[0](cms), LOSS=[1]:
3242                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3243                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3244                        Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%),
                        LGI=[119.722](m), MNI=[0.013], SCI=[0](min),
3245                    Continuous simulation parameters:
3246                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3247    *%--------------|-------------------------------------------------------------|
3248    *%--------------|-------------------------------------------------------------|
3249    ADD HYD             NHYDsum=["KB-P1"], NHYDs to
        add=["KB-01A-S"+"KB-01B-S"+"KB-01C-S"+"KB-03-S"+"KB-04-S"+"KB-05"+"KB-06-S"+"KB-11-S"+"KB
        -15"+"S1"]
3250    *%--------------|-------------------------------------------------------------|
3251    ROUTE RESERVOIR     NHYDout=["KB-P1R"],   NHYDin=["KB-P1"],
3252                        RDT=[1](min),
3253                              TABLE of ( OUTFLOW-STORAGE ) values
3254                                        (cms) - (ha-m)
3255                                      [    0.0 ,   0.0 ]
3256                                      [0.076,0.003]
```

```
                                        [0.088, 0.006]
                                        [0.136, 0.011]
                                        [0.301, 0.017]
                                        [0.454, 0.027]
                                        [0.631, 0.041]
                                        [1.173, 0.068]
                                        [1.91, 0.111]
                                        [4.847, 0.231]
                                        [9.813, 0.436]
                                        [12.134, 0.617]
                                        [12.438, 0.732]
                                        [12.424, 0.811]
                                        [12.425, 0.894]
                                        [   -1   ,   -1   ]  (max twenty pts)
                                NHYDovf=["KB-P1ovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["KB-Pond1"], NHYDs to add=["KB-P1R"+"KB-P1ovf"]
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["KB-Pond1"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at KB first pond"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-07"], DT=[1]min, AREA=[10.86](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                  LGI=[269.072](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["KB-07"], CINLET=[2.094](cms), NINLET=[1],
                  MajNHYD=["KB-07-MJ"]
                  MinNHYD=["KB-07-MN"]
                  TMJSTO=[1378](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["KB-07-S"], NHYDs to add=["KB-07-MJ"+"KB-07-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-08"], DT=[1]min, AREA=[6.61](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                  LGI=[209.921](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["KB-08"], CINLET=[1.058](cms), NINLET=[1],
                  MajNHYD=["KB-08-MJ"]
                  MinNHYD=["KB-08-MN"]
                  TMJSTO=[787](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["KB-08-S"], NHYDs to add=["KB-08-MJ"+"KB-08-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-09"], DT=[1]min, AREA=[2.6](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
```

```
                        LGI=[131.656](m), MNI=[0.013], SCI=[0](min),
3310                    Continuous simulation parameters:
3311                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3312    *%--------------|-------------------------------------------------------------|
3313    *%--------------|-------------------------------------------------------------|
3314    CONTINUOUS STANDHYD NHYD=["KB-10_1"], DT=[1]min, AREA=[2.37](ha), XIMP=[0.86],
        TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
3315                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3316                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3317                    Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                        LGI=[125.698](m), MNI=[0.013], SCI=[0](min),
3318                    Continuous simulation parameters:
3319                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3320    *%--------------|-------------------------------------------------------------|
3321    CONTINUOUS STANDHYD NHYD=["KB-10_2"], DT=[1]min, AREA=[1.14](ha), XIMP=[0.86],
        TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
3322                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3323                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3324                    Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%), LGI=[87.178](m),
                        MNI=[0.013], SCI=[0](min),
3325                    Continuous simulation parameters:
3326                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3327    *%--------------|-------------------------------------------------------------|
3328    *%--------------|-------------------------------------------------------------|
3329    CONTINUOUS STANDHYD NHYD=["KB-12"], DT=[1]min, AREA=[4.86](ha), XIMP=[0.79],
        TIMP=[0.79], DWF=[0](cms), LOSS=[1]:
3330                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3331                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3332                    Impervious areas: IAimp=[1.099](mm), SLPI=[2.0](%),
                        LGI=[180.000](m), MNI=[0.013], SCI=[0](min),
3333                    Continuous simulation parameters:
3334                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3335    *%--------------|-------------------------------------------------------------|
3336    COMPUTE DUALHYD     NHYDin=["KB-12"], CINLET=[0.8665](cms), NINLET=[1],
3337                        MajNHYD=["KB-12-MJ"]
3338                        MinNHYD=["KB-12-MN"]
3339                        TMJSTO=[632](cu-m)
3340    *%--------------|-------------------------------------------------------------|
3341    ADD HYD             NHYDsum=["KB-12-S"], NHYDs to add=["KB-12-MJ"+"KB-12-MN"]
3342    *%--------------|-------------------------------------------------------------|
3343    CONTINUOUS STANDHYD NHYD=["KB-13"], DT=[1]min, AREA=[10.19](ha), XIMP=[0.64],
        TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
3344                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3345                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3346                    Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[260.640](m), MNI=[0.013], SCI=[0](min),
3347                    Continuous simulation parameters:
3348                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3349    *%--------------|-------------------------------------------------------------|
3350    COMPUTE DUALHYD     NHYDin=["KB-13"], CINLET=[1.722](cms), NINLET=[1],
3351                        MajNHYD=["KB-13-MJ"]
3352                        MinNHYD=["KB-13-MN"]
3353                        TMJSTO=[1077](cu-m)
```

```
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["KB-13-S"], NHYDs to add=["KB-13-MJ"+"KB-13-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-14"], DT=[1]min, AREA=[5.47](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious  areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                  LGI=[190.962](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["KB-14"], CINLET=[0.8734](cms), NINLET=[1],
                  MajNHYD=["KB-14-MJ"]
                  MinNHYD=["KB-14-MN"]
                  TMJSTO=[631](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["KB-14-S"], NHYDs to add=["KB-14-MJ"+"KB-14-MN"]
*%----------------|---------------------------------------------------------|
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-16_2"], DT=[1]min, AREA=[3.42](ha), XIMP=[0.71],
TIMP=[0.71], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious  areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%),
                  LGI=[150.997](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["KB-P2"], NHYDs to
add=["KB-Pond1"+"KB-07-S"+"KB-08-S"+"KB-09"+"KB-10_1"+"KB-10_2"+"KB-12-S"+"KB-13-S"+"KB-1
4-S"+"KB-16_2"]
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR   NHYDout=["KB-P2R"],  NHYDin=["KB-P2"],
                  RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,  0.0 ]
                                  [0.053, 0.005]
                                  [0.132, 0.009]
                                  [0.269, 0.014]
                                  [0.455, 0.023]
                                  [0.699, 0.037]
                                  [0.947, 0.056]
                                  [1.853, 0.09]
                                  [2.712, 0.146]
                                  [6.626, 0.287]
                                  [11.228, 0.515]
                                  [14.885, 0.738]
                                  [16.473, 0.893]
                                  [17.311, 0.998]
                                  [17.633, 1.063]
                                  [17.634, 1.112]
                                  [   -1  ,  -1  ]  (max twenty pts)
                        NHYDovf=["KB-P2ovf"]
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["KB-Pond2"], NHYDs to add=["KB-P2R"+"KB-P2ovf"]
*%----------------|---------------------------------------------------------|
SAVE HYD          NHYD=["KB-Pond2"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at KB second pond"]
```

```
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-16_1"], DT=[1]min, AREA=[2.8](ha), XIMP=[0.75],
TIMP=[0.75], DWF=[0](cms), LOSS=[1]:
                       Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                       F=[0.00](mm),
                       Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                       MNP=[0.250], SCP=[0](min),
                       Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%),
                       LGI=[136.626](m), MNI=[0.013], SCI=[0](min),
                       Continuous simulation parameters:
                       IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                       END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD                NHYDsum=["KB-P3"], NHYDs to add=["KB-Pond2"+"KB-16_1"]
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
* One inflow node from pond 3 is added to the model (ROUTE RESERVOIR)
* Another inflow node from right side of pond 3 is not added to the model
ROUTE RESERVOIR        NHYDout=["KB-P3R"],  NHYDin=["KB-P3"],
                       RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [   0.0 ,   0.0 ]
                                      [0.051,0.002]
                                      [0.048,0.003]
                                      [0.057,0.029]
                                      [0.089,0.045]
                                      [0.133,0.069]
                                      [0.199,0.106]
                                      [0.321,0.172]
                                      [1.029,0.306]
                                      [4.036,0.527]
                                      [8.332,0.761]
                                      [11.727,0.941]
                                      [14.125,1.067]
                                      [15.675,1.149]
                                      [16.555,1.196]
                                      [16.911,1.214]
                                      [   -1  ,   -1  ]   (max twenty pts)
                              NHYDovf=["KB-P3ovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD                NHYDsum=["KB-Pond3"], NHYDs to add=["KB-P3R"+"KB-P3ovf"]
*%----------------|-------------------------------------------------------------|
SAVE HYD               NHYD=["KB-Pond3"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                       HYD_COMMENT=["Total Flows at KB third pond"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM
Modeling Approach, NOVATECH Report June, 2020)
*#    - TO FRASER-CLARKE DRAIN
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["FC-01"], DT=[1]min, AREA=[8.03](ha), XIMP=[0.47],
TIMP=[0.47], DWF=[0](cms), LOSS=[1]:
                       Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                       F=[0.00](mm),
                       Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                       MNP=[0.250], SCP=[0](min),
                       Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                       LGI=[231.373](m), MNI=[0.013], SCI=[0](min),
                       Continuous simulation parameters:
                       IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                       END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD        NHYDin=["FC-01"], CINLET=[0.756](cms), NINLET=[1],
                       MajNHYD=["FC-01-MJ"]
                       MinNHYD=["FC-01-MN"]
```

```
                        TMJSTO=[714](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["FC-01-S"], NHYDs to add=["FC-01-MJ"+"FC-01-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["FC-02"], DT=[1]min, AREA=[16.05](ha), XIMP=[0.93],
TIMP=[0.93], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[327.109](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["FC-02"], CINLET=[1.159](cms), NINLET=[1],
                        MajNHYD=["FC-02-MJ"]
                        MinNHYD=["FC-02-MN"]
                        TMJSTO=[2385](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["FC-02-S"], NHYDs to add=["FC-02-MJ"+"FC-02-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["FC-03"], DT=[1]min, AREA=[7.37](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[221.660](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["FC-03"], CINLET=[0.358](cms), NINLET=[1],
                        MajNHYD=["FC-03-MJ"]
                        MinNHYD=["FC-03-MN"]
                        TMJSTO=[1131](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["FC-03-S"], NHYDs to add=["FC-03-MJ"+"FC-03-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["FC-04"], DT=[1]min, AREA=[12.87](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[292.916](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["FC-04"], CINLET=[0.741](cms), NINLET=[1],
                        MajNHYD=["FC-04-MJ"]
                        MinNHYD=["FC-04-MN"]
                        TMJSTO=[1794](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["FC-04-S"], NHYDs to add=["FC-04-MJ"+"FC-04-MN"]
*%----------------|---------------------------------------------------------|
*#*************************************************************************
*#     PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling
Approach, NOVATECH Report June, 2020)
*#     - TO JOCK RIVER
*#*************************************************************************
```

```
CONTINUOUS STANDHYD NHYD=["JR-01"], DT=[1]min, AREA=[8.24](ha), XIMP=[0.64], TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious  areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%), LGI=[234.379](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["JR-01"], CINLET=[0.563](cms), NINLET=[1],
                    MajNHYD=["JR-01-MJ"]
                    MinNHYD=["JR-01-MN"]
                    TMJSTO=[1040](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["JR-01-S"], NHYDs to add=["JR-01-MJ"+"JR-01-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["JR-02"], DT=[1]min, AREA=[1.59](ha), XIMP=[0.64], TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious  areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%), LGI=[102.956](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["JR-02"], CINLET=[0.153](cms), NINLET=[1],
                    MajNHYD=["JR-02-MJ"]
                    MinNHYD=["JR-02-MN"]
                    TMJSTO=[153](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["JR-02-S"], NHYDs to add=["JR-02-MJ"+"JR-02-MN"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment FRASER
*#     - To Fraser-Clarke drain (north of the Jock)
*#     - Developed land with assumed 43% imp.
*#     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
*#     - 2020-12-17 All Fraser is undeveloped (Nashyd)
*#*****************************************************************************
CONTINUOUS NASHYD   NHYD=["FRASER-DRN"], DT=[1]min, AREA=[13.65](ha),
                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                    N=[3], TP=[0.4258]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["FRASER-D"], DT=[1]min, AREA=[21.61](ha),
*                    XIMP=[0.585], TIMP=[0.585], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[80],
*                    Pervious  surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                            LGI=[379.561](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
```

```
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD     NHYD=["FRASER-D"], DT=[1]min, AREA=[21.61](ha),
                      DWF=[0](cms), CN/C=[77],   IA=[4.67](mm),
                      N=[3], TP=[0.674]hrs,
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),
                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[12](hrs)
                      Baseflow simulation parameters:
                      BaseFlowOption=[1] ,
                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                      VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD       NHYDin=["FRASER-D"], CINLET=[3.545](cms), NINLET=[1],
*                      MajNHYD=["FRASER-J"]
*                      MinNHYD=["FRASER-N"]
*                      TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD               NHYDsum=["FRASER-S"], NHYDs to add=["FRASER-J"+"FRASER-N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR       NHYDout=["MS_P20"],   NHYDin=["FRASER"],
*                      RDT=[1](min),
*                            TABLE of ( OUTFLOW-STORAGE ) values
*                                     (cms) - (ha-m)
*                                  [    0.0 ,   0.0 ]
*                                  [    0.04 ,  0.36]
*                                  [    -1   ,  -1  ]  (max twenty pts)
*                            NHYDovf=["P20-OVF"]
*%----------------|---------------------------------------------------------|
ADD HYD               NHYDsum=["4241"], NHYDs to
add=["KB-Pond3"+"S-1-B"+"FRASER-DRN"+"FRASER-D"+"N_KB"+"FC-01-S"+"FC-02-S"+"FC-03-S"]
*%----------------|---------------------------------------------------------|
SAVE HYD              NHYD=["4241"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                      HYD_COMMENT=["Total Flows at Ken-Burnett Outlet"]
*%----------------|---------------------------------------------------------|
*# Hydrograph from Node Ken-Burnett to station 3633
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
*#
ROUTE CHANNEL         NHYDout=["4241-out"], NHYDin=["4241"],   RDT=[1](min),
                      CHLGTH=[294](m),   CHSLOPE=[0.1088](%), FPSLOPE=[0.1088](%),
                      SECNUM=[1.0],         NSEG=[3]
                      ( SEGROUGH, SEGDIST(m))=[0.05, -20.12
                                               -0.035, 45.26
                                                0.05, 403.84] NSEG times
                      ( DISTANCE(m), ELEVATION(m))=[]
                      [-909.72, 95 ]
                      [-907.09, 94.5 ]
                      [-904.65, 94 ]
                      [-902.26, 93.5 ]
                      [-44.51, 91.5 ]
                      [-25.1, 91.5 ]
                      [-20.98, 91 ]
                      [-20.61, 90.5 ]
                      [-20.12, 90 ]
                      [-6.13, 87.26 ]
                      [17.51, 86.56 ]
                      [31.37, 87.2 ]
                      [45.26, 90 ]
                      [50.41, 90.5 ]
                      [63.06, 91 ]
                      [134.5, 91.5 ]
                      [190.63, 92 ]
                      [251.98, 92.5 ]
                      [321.32, 93.5 ]
```

```
                        [403.84, 95 ]
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_KB"], NHYDs to
add=["4241-out"+"FC-04-S"+"JR-01-S"+"JR-02-S"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["SN_KB"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows before Station 3633]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Station 3633 to Node Todd
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
*# JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and
change the slope from 0.0498% to 0.24671% That is because of adding station 4241
between station 4534 and  station 3633
*#
ROUTE CHANNEL           NHYDout=["N_TO"], NHYDin=["SN_KB"],   RDT=[1](min),
                        CHLGTH=[608](m),   CHSLOPE=[0.24671](%), FPSLOPE=[0.24671](%),
                        SECNUM=[1.0],         NSEG=[3]
                        (SEGROUGH, SEGDIST(m))=[0.05, -23.74
                                                -0.035, 23.74
                                                 0.05, 26.50] NSEG times
                        (DISTANCE(m), ELEVATION(m))=[]
                        -29.24, 91.0
                        -27.41, 90.5
                        -25.64, 90
                        -23.74, 89.5
                        -22, 89.26
                        -20, 88.51
                        -19, 88.32
                        -15, 88.1
                        -10, 88.11
                        -5, 88.17
                        0, 88.27
                        5, 88.19
                        10, 88.06
                        15, 88.48
                        16, 88.7
                        23.74, 89.5
                        24.68, 90
                        25.57, 90.5
                        26.50, 91.0
*                                       [-29.24, 91]
*                                       [-27.41, 90.5]
*                                       [-25.64, 90]
*                                       [-23.74, 89.5]
*                                       [-22, 89. 26]
*                                       [-20, 88.51]
*                                       [-19, 88.32]
*                                       [-15, 88.1]
*                                       [-10, 88.11]
*                                       [-5, 88.17]
*                                       [0, 88.27]
*                                       [5, 88.19]
*                                       [10, 88.06]
*                                       [15, 88.48]
*                                       [16, 88.7]
*                                       [23.74, 89.5]
*                                       [24.68, 90]
*                                       [25.57, 90.5]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    Catchment Greenbank
*#    - To Greenbank Drain (south of the Jock)
*#    - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
*#    - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["Greenbank"], DT=[1]min, AREA=[36.6](ha),
```

```
                        XIMP=[0.639], TIMP=[0.682], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[493.96](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["GreenB_MN"] ,NHYDin=["Greenbank"] ,
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                       [    0.0 , 0.0    ]
                                       [ 0.033 , 0.084 ]
                                       [ 0.039 , 0.201 ]
                                       [ 0.113 , 0.292 ]
                                       [ 0.237 , 0.386 ]
                                       [ 0.382 , 0.484 ]
                                       [ 0.539 , 0.585 ]
                                       [ 0.7 , 0.692 ]
                                       [ 0.86 , 0.804 ]
                                       [ 4.684 , 0.922 ]
                                       [ 11.539 , 1.052 ]
                                       [ 20.867 , 1.168 ]
                                       [ 103.616 , 1.974 ]
                                       [    -1  ,  -1    ]  (max twenty pts)
                              NHYDovf=["GreenB_MJ"] ,
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["GreenB"], NHYDs to add=["N_TO"+"GreenB_MJ"+"GreenB_MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["GreenB"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Greenbank Drain"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    Catchment TODD
*#    - To Todd Drain (south of the Jock)
*#    - Subdivision with 43% imp. as per Barrhaven South MSS
*#    - 2020-11-30 increase imp. based on P598(04)-11
*#    - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on
P598(04)-11
*#    - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
*#*****************************************************************************
*#    - JFSA 2021-01-19 add "TODD_MN1" as part of Clarke("W_CLAR_MJ") and remove it
from Todd
*CONTINUOUS STANDHYD NHYD=["TODD_MN1"], DT=[1]min, AREA=[1.772](ha),
*                       XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[77],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                               LGI=[108.689](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MN2"], DT=[1]min, AREA=[2.1](ha),
                        XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
```

```
                                LGI=[118.322](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MN3"], DT=[1]min, AREA=[0.117](ha),
                        XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[27.928](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MI"], DT=[1]min, AREA=[30.230](ha),
                        XIMP=[0.52], TIMP=[0.64], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[448.925](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA, 2021-01-19 update "TODD_ALL" area from 108.741 ha to 112.908 ha based on GIS measurements (148.41-30.23-0.117-2.1-3.055=112.908 ha)
CONTINUOUS STANDHYD NHYD=["TODD_ALL"], DT=[1]min, AREA=[112.908](ha),
                        XIMP=[0.52], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[867.594](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_P"], DT=[1]min, AREA=[3.055](ha),
                        XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[142.712](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_DEVL" is part of the Corrigan sub-catchment because it drains to Corrigan SWM as per geoOttawa.ca Feb. 2021. "TODD_DEVL" now is called "corr1" and its parameters remain the same.
*CONTINUOUS STANDHYD NHYD=["TODD_DEVL"], DT=[1]min, AREA=[15.87](ha),
*                       XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[77],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
```

```
*                              LGI=[325.27](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),   END=-1
*%----------------|------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_UnD" is part of the Corrigan sub-catchment. "TODD_UnD" now is called "corr2" and its parameters remain the same.
*CONTINUOUS NASHYD   NHYD=["TODD_UnD"], DT=[1]min, AREA=[12.47](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),   END=-1
*%----------------|------------------------------------------------------------|
*# 5-Year + 12% Capture
*COMPUTE DUALHYD     NHYDin=["TODD_MJ"], CINLET=[3.314](cms), NINLET=[1],
*                       MajNHYD=["TODD_MJj"]
*                       MinNHYD=["TODD_MJn"]
*                       TMISTO=[0.1](cu-m)
ROUTE RESERVOIR     NHYDout=["TODD_MJn"] ,NHYDin=["TODD_MJ"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                [     0.0 , 0.0     ]
                                [ 3.314   , 0.0001  ]
                                [     -1  ,  -1     ]  (max twenty pts)
                          NHYDovf=["TODD_MJj"] ,
*%----------------|------------------------------------------------------------|
*# 5-Year + 12% Capture
*COMPUTE DUALHYD     NHYDin=["TODD_MN1"], CINLET=[0.227](cms), NINLET=[1],
*                       MajNHYD=["TODD_MN1j"]
*                       MinNHYD=["TODD_MN1n"]
*                       TMISTO=[0.1](cu-m)
*ROUTE RESERVOIR     NHYDout=["TODD_MN1n"] ,NHYDin=["TODD_MN1"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                   [     0.0 , 0.0     ]
*                                   [ 0.227   , 0.0001  ]
*                                   [     -1  ,  -1     ]  (max twenty pts)
*                             NHYDovf=["TODD_MN1j"] ,
*%----------------|------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["TODD_MN2"], CINLET=[0.268](cms), NINLET=[1],
*                       MajNHYD=["TODD_MN2j"]
*                       MinNHYD=["TODD_MN2n"]
*                       TMISTO=[0.1](cu-m)
ROUTE RESERVOIR     NHYDout=["TODD_MN2n"] ,NHYDin=["TODD_MN2"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                [     0.0 , 0.0     ]
                                [ 0.268   , 0.0001  ]
                                [     -1  ,  -1     ]  (max twenty pts)
                          NHYDovf=["TODD_MN2j"] ,
*%----------------|------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["TODD_MN3"], CINLET=[0.016](cms), NINLET=[1],
*                       MajNHYD=["TODD_MN3j"]
*                       MinNHYD=["TODD_MN3n"]
*                       TMISTO=[0.1](cu-m)
ROUTE RESERVOIR     NHYDout=["TODD_MN3n"] ,NHYDin=["TODD_MN3"] ,
```

```
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                 [     0.0 ,  0.0     ]
                                 [  0.016  ,  0.0001  ]
                                 [     -1  ,    -1    ]  (max twenty pts)
                              NHYDovf=["TODD_MN3j"] ,
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-01-19 move A2 from Corrigan sub-catchment to Todd sub-catchment so the major system from A2 can be added to Todd
CONTINUOUS STANDHYD NHYD=["A2"], DT=[1]min, AREA=[25.5](ha),
                        XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[566](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A2"], CINLET=[1.818](cms), NINLET=[1],
                        MajNHYD=["A2-MJ"]
                        MinNHYD=["A2-MN"]
                        TMJSTO=[924](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["TODD"], NHYDs to add=["TODD_MN2n"+"TODD_MN3n"+"TODD_MJj"+"TODD_P"+"TODD_ALL"+"W_CLAR_MJn"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["TODD"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Todd Drain"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    Todd Pond 3
*#    - Rating curve obtained from Barrhaven South MSS modeling
*#    - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
*#*****************************************************************************
ROUTE RESERVOIR     NHYDout=["MS_P3"],  NHYDin=["TODD"],
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                 [    0.0 ,   0.0 ]
                                 [  0.014 ,  0.155 ]
                                 [  0.048 ,  0.394 ]
                                 [  0.061 ,  0.56  ]
                                 [  0.08  ,  0.909 ]
                                 [  0.088 ,  1.089 ]
                                 [  0.109 ,  1.652 ]
                                 [  0.118 ,  1.952 ]
                                 [  0.122 ,  2.099 ]
                                 [  1.972 ,  2.269 ]
                                 [  9.135 ,  2.598 ]
                                 [ 15.608 ,  2.826 ]
                                 [ 19.256 ,  2.942 ]
                                 [ 27.282 ,  3.181 ]
                                 [ 40.957 ,  3.55  ]
                                 [ 56.372 ,  3.929 ]
                                 [ 73.349 ,  4.317 ]
                                 [ 85.469 ,  4.579 ]
                                 [ 104.771 ,  4.977 ]
                                 [    -1  ,    -1  ]  (max twenty pts)
                              NHYDovf=["P3-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_TO"], NHYDs to add=["GreenB"+"MS_P3"+"P3-OVF"+"TODD_MN2j"+"A2-MJ"]
```

```
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["SN_TO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Todd Drain"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Todd Drain routed to Corrigan Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*# 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*
ROUTE CHANNEL     NHYDout=["N_TO"] ,NHYDin=["SN_TO"] ,
                  RDT=[1](min),
                  CHLGTH=[280](m),   CHSLOPE=[0.05](%),
                                       FPSLOPE=[0.05](%),
                  SECNUM=[1.0],        NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=
                    [0.075,-17.72
                    -0.045,17.72
                    0.075,80.62] NSEG times
                  ( DISTANCE (m), ELEVATION (m))=
                  [-83.32, 90.00]
                  [-81.36, 89.50]
                  [-79.12, 89.00]
                  [-76.13, 88.50]
                  [-20.46, 88.00]
                  [-19.36, 87.50]
                  [-18.51, 87.00]
                  [-17.72, 86.50]
                  [-11.95, 85.24]
                  [-0.11, 85.12]
                  [11.49, 85.20]
                  [17.72, 86.50]
                  [19.74, 87.00]
                  [21.22, 87.50]
                  [22.68, 88.00]
                  [24.28, 88.50]
                  [26.79, 89.00]
                  [71.98, 90.00]
                  [80.62, 90.50]
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["N_TO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total inflows at Station 2462"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    Catchment CORRIG
*#    - To Corrigan Drain (south of the Jock)
*#    - Primarily Developed (medium density)
*#    - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
*#*****************************************************************************
*ROUTE RESERVOIR    NHYDout=["MS_P1"],   NHYDin=["CORRIG"],
*                   RDT=[1](min),
*                         TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [   0.0 ,  0.0 ]
*                                  [   0.06 , 0.58]
*                                  [   -1   ,  -1  ]  (max twenty pts)
*                         NHYDovf=["P1-OVF"]
*%----------------|-------------------------------------------------------------|
*ADD HYD           NHYDsum=["SN_CO"], NHYDs to add=["N_TO"+"P1-OVF"+"MS_P1"]
*%----------------|-------------------------------------------------------------|
*SAVE HYD          NHYD=["SN_CO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
*                  HYD_COMMENT=["Total Flows at Corrigan Drain"]
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_DEVL" is part of the Corrigan sub-catchment because it drains to Corrigan SWM as per geoOttawa.ca Feb. 2021. "TODD_DEVL" now is called "corr1"
```

```
and its parameters remain the same.
CONTINUOUS STANDHYD NHYD=["corr1"], DT=[1]min, AREA=[15.87](ha),
                    XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[325.27](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*      -JFSA 2021-02-23 add DUALHYD for "corr1". "corr1" DUALHYD Parameters are the
same as A2 DUALHYD Parameters because A2 is the nearest sub-catchment to "corr1".
*       At the same time, Corrigan Report, IBI group 2008 has no DUALHYD Parameters for
A1-Corrig
COMPUTE DUALHYD     NHYDin=["corr1"], CINLET=[1.818](cms), NINLET=[1],
                    MajNHYD=["corr1-MJ"]
                    MinNHYD=["corr1-MN"]
                    TMJSTO=[924](cu-m)
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_UnD" is part of the Corrigan sub-catchment. "TODD_UnD" now
is called "corr2" and its parameters remain the same.
CONTINUOUS NASHYD   NHYD=["corr2"], DT=[1]min, AREA=[12.47](ha),
                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                    N=[3], TP=[1.10]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-19 change A1-Corrig to be developed as per geoottawa website and
apply the parameters of A2, the nearest sub-catchment to A1-Corrig, LGI is calculated
based on A1-Corrig area
*     -JFSA 2021-01-19 update all Corrigan areas based on GIS measurements, and keep
LGI as it is from Corrigan Report, IBI Group, 2008 because LGI calculated is less than
LGI from the Corrigan Report
CONTINUOUS STANDHYD NHYD=["A1-Corrig"], DT=[1]min, AREA=[15.75](ha),
                    XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[324.037](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*
*      -JFSA 2021-01-25 add DUALHYD for A1-Corrig. A1-Corrig DUALHYD Parameters are the
same as A2 DUALHYD Parameters because A2 is the nearest sub-catchment to A1-Corrig.
*       At the same time, Corrigan Report, IBI group 2008 has no DUALHYD Parameters for
A1-Corrig
COMPUTE DUALHYD     NHYDin=["A1-Corrig"], CINLET=[1.818](cms), NINLET=[1],
                    MajNHYD=["A1-MJ"]
                    MinNHYD=["A1-MN"]
                    TMJSTO=[924](cu-m)
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["A1-Corrig"], DT=[1]min, AREA=[15.75](ha),
*                    DWF=[0](cms),  CNVC=[66], IA=[2.5](mm),
*                    N=[3.0], TP=[0.36]hrs,
```

```
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD     NHYD=["B1"], DT=[1]min, AREA=[2.77](ha),
                      DWF=[0](cms),   CN/C=[56], IA=[2.5](mm),
                      N=[3.0], TP=[0.23]hrs,
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),
                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[12](hrs)
                      Baseflow simulation parameters:
                      BaseFlowOption=[1] ,
                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                      VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A4"], DT=[1]min, AREA=[1.27](ha),
                      XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                      SCS curve number CN=[75],
                      Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                      Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[253](m), MNI=[0.013], SCI=[0](min),
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
COMPUTE DUALHYD       NHYDin=["A4"], CINLET=[0.405](cms), NINLET=[1],
                      MajNHYD=["A4-MJ"]
                      MinNHYD=["A4-MN"]
                      TMISTO=[68](cu-m)
*%-----------------|-------------------------------------------------------|
ADD HYD               NHYDsum=["MH101"], NHYDs to
add=["A1-MJ"+"A1-MN"+"corr1-MJ"+"corr1-MN"+"corr2"+"B1"+"A4-MN"]
*%-----------------|-------------------------------------------------------|
SAVE HYD              NHYD=["MH101"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                      HYD_COMMENT=["Total Flows at MH101"]
*%-----------------|-------------------------------------------------------|
ROUTE PIPE            PTYPE=[1]circ, NHYDout=["101-102"], RNUMBER=[1.0], PDIAM=[1050](mm),
                      PLNGTH=[368](m), PROUGH=[0.013], PSLOPE=[0.0054](m/m),
                      NHYDin=["MH101"], RDT=[1]
*%-----------------|-------------------------------------------------------|
*     -JFSA 2021-01-19 move A2 from Corrigan sub-catchment to Todd sub-catchment so the
major system from A2 can be added to Todd
*CONTINUOUS STANDHYD NHYD=["A2"], DT=[1]min, AREA=[25.5](ha),
*                       XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[75],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                               LGI=[566](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD       NHYDin=["A2"], CINLET=[1.818](cms), NINLET=[1],
*                       MajNHYD=["A2-MJ"]
*                       MinNHYD=["A2-MN"]
*                       TMISTO=[924](cu-m)
```

```
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["MH102"], NHYDs to add=["A2-MN"+"101-102"]
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["MH102"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at MH102"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A5"], DT=[1]min, AREA=[1.6](ha),
                  XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[300](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs), IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["A5T"], NHYDs to add=["A4-MJ"+"A5"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["A5T"], CINLET=[0.357](cms), NINLET=[1],
                  MajNHYD=["A5-MJ"]
                  MinNHYD=["A5-MN"]
                  TMJSTO=[60](cu-m)
*%----------------|-------------------------------------------------------------|
*   -JFSA Jan. 2021, A3 is a part of Todd so it is removed
*   -JFSA Jan. 2021, "A2-MJ" added to "Todd"
*CONTINUOUS STANDHYD NHYD=["A3"], DT=[1]min, AREA=[18.4](ha),
*                  XIMP=[0.58], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                  SCS curve number CN=[75],
*                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                          LGI=[450](m), MNI=[0.013], SCI=[0](min),
*                  Continuous simulation parameters:
*                  IaRECper=[4](hrs), IaRECimp=[4](hrs),
*                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                  InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*ADD HYD           NHYDsum=["A3-A2MJ"], NHYDs to add=["A2-MJ"+"A3"]
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD   NHYDin=["A3-A2MJ"], CINLET=[2.208](cms), NINLET=[1],
*                  MajNHYD=["A3R-MJ"]
*                  MinNHYD=["A3R-MN"]
*                  TMJSTO=[908](cu-m)
*%----------------|-------------------------------------------------------------|
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["102-103"], RNUMBER=[1.0], PDIAM=[1500](mm),
                  PLNGTH=[504](m), PROUGH=[0.013], PSLOPE=[0.0028](m/m),
                  NHYDin=["MH102"], RDT=[1]
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["MH103"], NHYDs to add=["102-103"+"A5-MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["MH103"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at MH103"]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["103-104"], RNUMBER=[1.0], PDIAM=[1650](mm),
                  PLNGTH=[438](m), PROUGH=[0.013], PSLOPE=[0.0046](m/m),
                  NHYDin=["MH103"], RDT=[1]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A6"], DT=[1]min, AREA=[1.56](ha),
                  XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[280](m), MNI=[0.013], SCI=[0](min),
```

```
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["A6T"], NHYDs to add=["A5-MJ"+"A6"]
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["A6T"], CINLET=[0.357](cms), NINLET=[1],
                        MajNHYD=["A6-MJ"]
                        MinNHYD=["A6-MN"]
                        TMJSTO=[60](cu-m)
*%----------------|---------------------------------------------------------|
*   -JFSA Jan. 2021, A7-corrig is a part of Todd so it is removed
*CONTINUOUS STANDHYD NHYD=["A7-corrig"], DT=[1]min, AREA=[11.8](ha),
*                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[75],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                            LGI=[438](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["A7-A3RMJ"], NHYDs to add=["A3R-MJ"+"A7-corrig"]
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["A7-A3RMJ"], CINLET=[1.003](cms), NINLET=[1],
*                       MajNHYD=["A7R-MJ"]
*                       MinNHYD=["A7R-MN"]
*                       TMJSTO=[496](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["MH104"], NHYDs to add=["A6-MN"+"103-104"+"TODD_MJn"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["MH104"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH104"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B2"], DT=[1]min, AREA=[12.31](ha),
                        XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[417](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["B2"], CINLET=[1.029](cms), NINLET=[1],
                        MajNHYD=["B2-MJ"]
                        MinNHYD=["B2-MN"]
                        TMJSTO=[508](cu-m)
*%----------------|---------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["315-333"], RNUMBER=[1.0], PDIAM=[1200](mm),
                        PLNGTH=[254](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                        NHYDin=["B2-MN"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B3"], DT=[1]min, AREA=[5.59](ha),
                        XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[345](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["B3"], CINLET=[0.459](cms), NINLET=[1],
                        MajNHYD=["B3-MJ"]
                        MinNHYD=["B3-MN"]
                        TMISTO=[227](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH333"], NHYDs to add=["B3-MN"+"315-333"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["MH333"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH333"]
*%----------------|---------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["333-335"], RNUMBER=[1.0], PDIAM=[1200](mm),
                        PLNGTH=[251](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                        NHYDin=["MH333"], RDT=[1]
*%----------------|---------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["335-338"], RNUMBER=[1.0], PDIAM=[1200](mm),
                        PLNGTH=[185](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                        NHYDin=["333-335"], RDT=[1]
*%----------------|---------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["338-340"], RNUMBER=[1.0], PDIAM=[1350](mm),
                        PLNGTH=[233](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                        NHYDin=["335-338"], RDT=[1]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD     NHYD=["B4"], DT=[1]min, AREA=[7.6](ha),
                        XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[388](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["B4"], CINLET=[0.655](cms), NINLET=[1],
                        MajNHYD=["B4-MJ"]
                        MinNHYD=["B4-MN"]
                        TMISTO=[323](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH340"], NHYDs to add=["338-340"+"B4-MN"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["MH340"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH340"]
*%----------------|---------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["340-104"], RNUMBER=[1.0], PDIAM=[1650](mm),
                        PLNGTH=[240](m), PROUGH=[0.013], PSLOPE=[0.0015](m/m),
                        NHYDin=["MH340"], RDT=[1]
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH104T"], NHYDs to add=["340-104"+"MH104"]
*%----------------|---------------------------------------------------------------|
ROUTE PIPE              PTYPE=[2]rect, NHYDout=["104-105"], RNUMBER=[1.0],
PWIDTH=[2400](mm)  by PHEIGHT=[2100](mm),
                        PLNGTH=[380](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                        NHYDin=["MH104T"], RDT=[1]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD     NHYD=["B5"], DT=[1]min, AREA=[2.2](ha),
                        XIMP=[0.57], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
```

```
                              LGI=[187](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B5"], CINLET=[0.260](cms), NINLET=[1],
                    MajNHYD=["B5-MJ"]
                    MinNHYD=["B5-MN"]
                    TMJSTO=[250](cu-m)
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A8"], DT=[1]min, AREA=[0.96](ha),
                    XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[186](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["A8T"], NHYDs to add=["A6-MJ"+"A8"]
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A8T"], CINLET=[0.238](cms), NINLET=[1],
                    MajNHYD=["A8-MJ"]
                    MinNHYD=["A8-MN"]
                    TMJSTO=[40](cu-m)
*%-----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["MH105"], NHYDs to
add=["104-105"+"B5-MN"+"A8-MN"+"TODD_MN3j"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["MH105"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH105"]
*%-----------------|-------------------------------------------------------------|
DIVERT HYD          NHYDin=["A8-MJ"] NIDout=[2]max five,
                    outflow hydrographs (NHYDs)=["A8-MJ-JR" "A8-MJ-B6"]
                    flow distribution table: (modify as necessary)
                    Note: all flows are in (cms)
                      QIDi  +  QIDii   =  QTOTAL
                    [   0   +    0     =    0    ]                      ]
                    [   50  +   50     =    100   ] end
*%-----------------|-------------------------------------------------------------
----------------------------|
DIVERT HYD          NHYDin=["MH105"] NIDout=[2]max five,
                    outflow hydrographs (NHYDs)=["MH105-JR"  "MH105-B6"]
                    flow distribution table: (modify as necessary)
                    Note: all flows are in (cms)
                      QIDi  +  QIDii   =  QTOTAL
                    [   0   +    0     =    0    ]
                    [   0   +   3.0    =   3.0   ]
                    [  96.9+   3.1     =    100   ] end
*%-----------------|-------------------------------------------------------------
----------------------------|
CONTINUOUS STANDHYD NHYD=["B7"], DT=[1]min, AREA=[7.19](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[211](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
```

```
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["B7-B4MJ"], NHYDs to add=["B4-MJ"+"B7"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["B7-B4MJ"], CINLET=[0.629](cms), NINLET=[1],
                  MajNHYD=["B7R-MJ"]
                  MinNHYD=["B7R-MN"]
                  TMJSTO=[311](cu-m)
*%----------------|-------------------------------------------------------------|
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["360-106A"], RNUMBER=[1.0], PDIAM=[1050](mm),
                  PLNGTH=[167](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                  NHYDin=["B7R-MN"], RDT=[1]
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-19 change B6 to be developed as per geoottawa website and apply the parameters of A7, the nearest sub-catchment to B6, LGI is calculated based on B6 area
CONTINUOUS STANDHYD NHYD=["B6"], DT=[1]min, AREA=[3.29](ha),
                  XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[148.099](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-25   add B1 DUALHYD as per Corrigan Report, IBI Group, 2008
COMPUTE DUALHYD   NHYDin=["B6"], CINLET=[0.064](cms), NINLET=[1],
                  MajNHYD=["B6-MJ"]
                  MinNHYD=["B6-MN"]
                  TMJSTO=[5484](cu-m)
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD  NHYD=["B6"], DT=[1]min, AREA=[3.29](ha),
*                  DWF=[0](cms),  CN/C=[75], IA=[2.5](mm),
*                  N=[3.0], TP=[0.36]hrs,
*                  Continuous simulation parameters:
*                  IaRECper=[4](hrs),
*                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                  InterEventTime=[12](hrs)
*                  Baseflow simulation parameters:
*                  BaseFlowOption=[1] ,
*                  InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                  VHydCond=[0.055](mm/hr),   END=-1
*%----------------|-------------------------------------------------------------|
*%    -EX-LAND is external land. It is a part of JOCKVA sub-catchment as per Corrigan Report, IBI Group, 2008
CONTINUOUS STANDHYD NHYD=["EX-LAND"], DT=[1]min, AREA=[32.5](ha),
                  XIMP=[0.50], TIMP=[0.50], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[74],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[465.475](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["EX-LAND"], CINLET=[2.275](cms), NINLET=[1],
                  MajNHYD=["EX-LAND-MJ"]
                  MinNHYD=["EX-LAND-MN"]
                  TMJSTO=[1365](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["B6-B7ExMJ"], NHYDs to add=["B7R-MJ"+"EX-LAND-MJ"+"B5-MJ"+"B6-MJ"+"B6-MN"+"A8-MJ-B6"]
*%----------------|-------------------------------------------------------------|
```

```
COMPUTE DUALHYD      NHYDin=["B6-B7ExMJ"], CINLET=[0.064](cms), NINLET=[1],
                     MajNHYD=["B6R-MJ"]
                     MinNHYD=["B6R-MN"]
                     TMJSTO=[5484](cu-m)
*%-----------------|-------------------------------------------------------------|
ROUTE PIPE           PTYPE=[1]circ, NHYDout=["105-106A"], RNUMBER=[1.0], PDIAM=[1800](mm),
                     PLNGTH=[208](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                     NHYDin=["MH105-B6"], RDT=[1]
*%-----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["MH106A"], NHYDs to
add=["360-106A"+"105-106A"+"B6R-MN"+"B6R-MJ"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["MH106A"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at MH106A"]
*%-----------------|-------------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH106 is called MH117/106 in Corrigan Report, IBI
Group, July 2008
*%
ROUTE PIPE           PTYPE=[1]circ, NHYDout=["106A-106"], RNUMBER=[1.0], PDIAM=[1800](mm),
                     PLNGTH=[190](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                     NHYDin=["MH106A"], RDT=[1]
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A9"], DT=[1]min, AREA=[2.44](ha),
                     XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                     SCS curve number CN=[75],
                     Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                     Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[262](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["A9"], CINLET=[0.547](cms), NINLET=[1],
                     MajNHYD=["A9-MJ"]
                     MinNHYD=["A9-MN"]
                     TMJSTO=[0](cu-m)
*%-----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["MH106"], NHYDs to add=["106A-106"+"A9-MN"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["MH106"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at MH106"]
*%-----------------|-------------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH107 is called MH118/107 in Corrigan Report, IBI
Group, July 2008
*%
ROUTE PIPE           PTYPE=[1]circ, NHYDout=["106-107"], RNUMBER=[1.0], PDIAM=[1800](mm),
                     PLNGTH=[122.5](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                     NHYDin=["MH106"], RDT=[1]
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A10"], DT=[1]min, AREA=[4.14](ha),
                     XIMP=[0.35], TIMP=[0.47], DWF=[0](cms), LOSS=[2],
                     SCS curve number CN=[75],
                     Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                     Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[183](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["A10"], CINLET=[0.310](cms), NINLET=[1],
                     MajNHYD=["A10-MJ"]
                     MinNHYD=["A10-MN"]
```

```
                        TMJSTO=[228](cu-m)
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A11"], DT=[1]min, AREA=[10.61](ha),
                    XIMP=[0.53], TIMP=[0.62], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[379](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A11"], CINLET=[0.993](cms), NINLET=[1],
                    MajNHYD=["A11-MJ"]
                    MinNHYD=["A11-MN"]
                    TMJSTO=[556](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["MH107"], NHYDs to add=["106-107"+"A10-MN"+"A11-MN"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["MH107"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH107"]
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["107-119"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[114](m), PROUGH=[0.013], PSLOPE=[0.0012](m/m),
                    NHYDin=["MH107"], RDT=[1]
*%----------------|---------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH108 is called MH120/108 in Corrigan Report, IBI
    Group, July 2008
*%
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["119-108"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[65.8](m), PROUGH=[0.013], PSLOPE=[0.0012](m/m),
                    NHYDin=["107-119"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A12"], DT=[1]min, AREA=[12.29](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[183](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A12"], CINLET=[1.029](cms), NINLET=[1],
                    MajNHYD=["A12-MJ"]
                    MinNHYD=["A12-MN"]
                    TMJSTO=[672](cu-m)
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A13"], DT=[1]min, AREA=[2.59](ha),
                    XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[379](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A13"], CINLET=[0.571](cms), NINLET=[1],
                    MajNHYD=["A13-MJ"]
```

```
                        MinNHYD=["A13-MN"]
                        TMISTO=[0](cu-m)
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-01-22 add the Corrigan pond area ("Pond-Block")
CONTINUOUS STANDHYD NHYD=["Pond-Block"], DT=[1]min, AREA=[2.94](ha),
                        XIMP=[0.415], TIMP=[0.415], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[183](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH108"], NHYDs to add=["119-108"+"A13-MN"+"A12-MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["MH108"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH108"]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["108-116"], RNUMBER=[1.0], PDIAM=[1800](mm),
                        PLNGTH=[76.6](m), PROUGH=[0.013], PSLOPE=[0.0013](m/m),
                        NHYDin=["MH108"], RDT=[1]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["116-corrig"], RNUMBER=[1.0],
PDIAM=[1800](mm),
                        PLNGTH=[79.5](m), PROUGH=[0.013], PSLOPE=[0.0013](m/m),
                        NHYDin=["108-116"], RDT=[1]
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["Corrigan"], NHYDs to add=["116-corrig"+"Pond-Block"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["Corrigan"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Corrigan Pond]
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["Co-P"],  NHYDin=["Corrigan"],
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [   0.0 ,  0.0 ]
                                    [   0.015 , 0.04118]
                                    [   0.030 , 0.08297]
                                    [   0.045 , 0.12537]
                                    [   0.060 , 0.16837]
                                    [   0.075 , 0.21199]
                                    [   0.090 , 0.27545]
                                    [   0.105 , 0.34650]
                                    [   0.120 , 0.42049]
                                    [   0.135 , 0.50188]
                                    [   0.186 , 0.60307]
                                    [   2.110 , 0.79083]
                                    [   5.874 , 1.00271]
                                    [   11.395 , 1.29643]
                                    [   18.770 , 1.62054]
                                    [   28.143 , 1.97516]
                                    [   -1  ,  -1  ]  (max twenty pts)
                              NHYDovf=["Co-P-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["corrig"], NHYDs to
add=["Co-P-OVF"+"Co-P"+"N_TO"+"MH105-JR"+"A8-MJ-JR"+"A9-MJ"+"A10-MJ"+"A11-MJ"+"A12-MJ"+"A
13-MJ"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["corrig"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Corrigan Pond"]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
```

```
*#     Corrigan Pond 1
*#     - Rating curve obtained from Barrhaven South MSS modeling
*#     - Tributary Drainage Area to MSS Pond 1 = 145 ha
*#*****************************************************************************
*ROUTE RESERVOIR      NHYDout=["MS_P1"],   NHYDin=["CORRIG"],
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                 [    0.0 ,   0.0 ]
*                                 [    0.06 ,  0.58]
*                                 [    -1  ,   -1  ]  (max twenty pts)
*                           NHYDovf=["P1-OVF"]
*%-----------------|-------------------------------------------------------------|
*ADD HYD              NHYDsum=["SN_CO"], NHYDs to add=["N_TO"+"P1-OVF"+"MS_P1"]
*%-----------------|-------------------------------------------------------------|
*SAVE HYD             NHYD=["SN_CO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
*                     HYD_COMMENT=["Total Flows at Corrigan Drain"]
*%-----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Corrigan Drain routed to Jockvale Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*#
ROUTE CHANNEL        NHYDout=["N_MI"] ,NHYDin=["corrig"] ,
                     RDT=[1](min),
                     CHLGTH=[580](m),   CHSLOPE=[0.4448](%),
                                          FPSLOPE=[0.4448](%),
                     SECNUM=[1.0],        NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.075,-17.72
                       -0.045,17.72
                       0.075,80.62] NSEG times
                     ( DISTANCE (m), ELEVATION (m))=
                     [-83.32,  90.00]
                     [-81.36,  89.50]
                     [-79.12,  89.00]
                     [-76.13,  88.50]
                     [-20.46,  88.00]
                     [-19.36,  87.50]
                     [-18.51,  87.00]
                     [-17.72,  86.50]
                     [-11.95,  85.24]
                     [-0.11,  85.12]
                     [11.49,  85.20]
                     [17.72,  86.50]
                     [19.74,  87.00]
                     [21.22,  87.50]
                     [22.68,  88.00]
                     [24.28,  88.50]
                     [26.79,  89.00]
                     [71.98,  90.00]
                     [80.62,  90.50]
*%-----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment MILLS
*#     - To SWM Facility north of the Jock
*#     - Primarily residental development
*#*****************************************************************************
*#
CONTINUOUS STANDHYD NHYD=["MILLS"], DT=[1]min, AREA=[175.99](ha),
                     XIMP=[0.38], TIMP=[0.38], DWF=[0](cms), LOSS=[2],
                     SCS curve number CN=[74],
                     Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                             LGP=[40](m), MNP=[0.25], SCP=[0](min),
                     Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                             LGI=[1118.123](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
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                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*#################################################################################
*#    Chapman Mills SWM Pond
*#    - Rating curve obtained from CCL hydraulic modeling
*#################################################################################
ROUTE RESERVOIR         NHYDout=["MILL_P"],   NHYDin=["MILLS"],
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                   [   0.0 ,   0.0 ]
                                   [   0.01 ,  0.01]
                                   [   0.05 ,  0.06]
                                   [   0.09 ,  0.11]
                                   [   0.13 ,  0.15]
                                   [   0.18 ,  0.19]
                                   [   0.28 ,  0.28]
                                   [   0.37 ,  0.34]
                                   [   0.45 ,  0.40]
                                   [   0.51 ,  0.44]
                                   [   0.56 ,  0.47]
                                   [   0.64 ,  0.52]
                                   [   0.76 ,  0.59]
                                   [   0.86 ,  0.65]
                                   [   1.09 ,  0.78]
                                   [   1.44 ,  0.96]
                                   [   3.18 ,  1.84]
                                   [   4.05 ,  2.31]
                                   [   -1   ,  -1   ]  (max twenty pts)
                              NHYDovf=["MIL-OV"]
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_MI"], NHYDs to add=["N_MI"+"MIL-OV"+"MILL_P"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["SN_MI"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Jockvale Road"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Jockvale Road routed to Heart's Desire
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 689
*#
ROUTE CHANNEL           NHYDout=["N_DE"] ,NHYDin=["SN_MI"] ,
                        RDT=[1](min),
                        CHLGTH=[1962](m),   CHSLOPE=[0.2227](%),
                                             FPSLOPE=[0.2227](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.075,-17.56
                          -0.045,18.27
                          0.075,32.51] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-54.07,  85.00]
                        [-39.43,  84.50]
                        [-28.30,  84.00]
                        [-24.12,  83.50]
                        [-22.30,  83.00]
                        [-20.55,  82.50]
                        [-17.56,  82.00]
                        [-12.63,  81.22]
                        [-0.11,  80.75]
                        [11.55,  81.22]
                        [18.27,  82.00]
                        [19.82,  82.50]
                        [22.48,  83.00]
                        [27.90,  83.50]
                        [29.31,  84.00]
```

```
                        [30.81,  84.50]
                        [32.51,  85.00]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Catchment DESIRE
*#     - To Jock River (north of the Jock)
*#     - Rural-estate subdivision (Heart's Desire Community)
*#################################################################################
CONTINUOUS STANDHYD NHYD=["DESIRE"], DT=[1]min, AREA=[23.78](ha),
                        XIMP=[0.25], TIMP=[0.25], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[400](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Catchment JOCKVA
*#     - To Jockvale SWM Facility
*#     - Residential development & golf course
*#     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
*#       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two
areas JOCKVA and EX-LAND 32.5 ha as per IBI GROUP, July 2008.
*#################################################################################
CONTINUOUS STANDHYD NHYD=["JOCKVA"], DT=[1]min, AREA=[225.13](ha),
                        XIMP=[0.50], TIMP=[0.50], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[74],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[1310.55](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["JOCKVA-TO"], NHYDs to
add=["EX-LAND-MN"+"JOCKVA"+"B2-MI"+"B3-MI"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["JOCKVA-TO"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at KB first pond"]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Jockvale SWM Facility
*#     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
*#################################################################################
ROUTE RESERVOIR         NHYDout=["JOCK_P"],   NHYDin=["JOCKVA-TO"],
                        RDT=[1](min),
                               TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                     [    0.0 ,   0.0 ]
                                     [    0.27 ,  0.03]
                                     [    0.28 ,  0.55]
                                     [    0.29 ,  1.14]
                                     [    0.30 ,  1.80]
                                     [    0.31 ,  2.32]
                                     [    1.12 ,  2.87]
                                     [    2.92 ,  3.45]
                                     [    4.64 ,  4.07]
                                     [    6.69 ,  4.72]
                                     [    9.02 ,  5.39]
                                     [    11.62 ,  6.10]
```

```
                                        [    14.42 ,  6.85]
                                        [    17.45 ,  7.62]
                                        [    20.69 ,  8.44]
                                        [    24.08 ,  9.28]
                                        [    27.68 ,  10.17]
                                        [    -1    ,  -1   ]  (max twenty pts)
                                NHYDovf=["JO-OVF"]
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["SN_DE"], NHYDs to add=["N_DE"+"DESIRE"+"JO-OVF"+"JOCK_P"]
*%----------------|---------------------------------------------------------|
SAVE HYD          NHYD=["SN_DE"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Heart's Desire"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Heart's Desire routed to Rideau River
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 0
*#
ROUTE CHANNEL     NHYDout=["N1"] ,NHYDin=["SN_DE"] ,
                  RDT=[1](min),
                  CHLGTH=[563](m),   CHSLOPE=[0.9668](%),
                                       FPSLOPE=[0.9668](%),
                  SECNUM=[1.0],        NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=
                    [0.075,-30.20
                    -0.045,30.20
                    0.075,48.48] NSEG times
                  ( DISTANCE (m), ELEVATION (m))=
                  [-98.46, 81.50]
                  [-92.24, 81.00]
                  [-86.88, 80.50]
                  [-81.54, 80.00]
                  [-74.36, 79.50]
                  [-63.54, 79.00]
                  [-39.23, 78.50]
                  [-34.51, 78.00]
                  [-33.01, 77.50]
                  [-30.20, 77.00]
                  [-13.42, 76.18]
                  [-1.14, 76.09]
                  [17.06, 76.18]
                  [30.20, 77.00]
                  [32.95, 77.50]
                  [34.06, 78.00]
                  [35.11, 78.50]
                  [36.32, 79.00]
                  [37.74, 79.50]
                  [48.48, 81.50]
*%----------------|---------------------------------------------------------|
*#*****************************************************************
*#    Catchment S-2
*#    - To Jock River (north and south)
*#    - Undeveloped floodplain and river
*#*****************************************************************
CONTINUOUS NASHYD NHYD=["S-2"], DT=[1]min, AREA=[102.94](ha),
                  DWF=[0](cms), CNVC=[72],   IA=[4.67](mm),
                  N=[3], TP=[0.40]hrs,
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),
                  SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[12](hrs)
                  Baseflow simulation parameters:
                  BaseFlowOption=[1] ,
                  InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                  VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["SN_N1"], NHYDs to add=["N1"+"S-2"]
```

```
*%----------------|---------------------------------------------------------|
SAVE HYD          NHYD=["SN_N1"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Rideau River"]
*%----------------|---------------------------------------------------------|
*#########################################################################
*% 5 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[5]
*%                 ["C24SC005.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 10 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[10]
*%                 ["C24SC010.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 25 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[25]
*%                 ["C24SC025.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 50 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[50]
*%                 ["C24SC050.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 3 hr Chicago storm based on OTTAWA CDA IDF Curves
*START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[100]
*%                 ["100YC3H.STM"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[100]
*%                 ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 3 hr Chicago storm based on OTTAWA CDA IDF Curves
*START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[100]
*%                 ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
*START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[101]
*%                 ["A24SC100.stm"] <--storm filename, one per line for NSTORM time
*START             TZERO=[0.0],   METOUT=[2],   NSTORM=[1],   NRUN=[102]
*%                 ["A24SC100_60.stm"] <--storm filename, one per line for NSTORM time
FINISH
```

```
00001>  ================================================================================
00002>
00003>  SSSSS   W   W   M   M   H   H   Y   Y    M   M    OOO          222     000    11   5555   ========
00004>  S       W   W   MM MM   H   H    Y Y     MM MM   O   O        2   2   0   0  111   5
00005>  SSSSS   W W W   M M M   HHHHH     Y      M M M   O   O            2   0   0   11   5      Ver 5.500
00006>      S   W W W   M   M   H   H     Y      M   M   O   O        222   0   0   11   555    FEB 2015
00007>  SSSSS    W W    M   M   H   H     Y      M   M    OOO         2     0   0   11     5    ========
00008>                                                                2     0   0   11     5    # 2549237
00009>          StormWater Management HYdrologic Model                222     000    11   555    ========
00010>
00011>  ********************************************************************************
00012>  ********************  SWMHYMO Ver 5.500  ********************
00013>  ******************  A single event and continuous hydrologic simulation model  ******************
00014>  ******************       based on the principles of HYMO and its successors    ******************
00015>  ******************                 OTTHYMO-83 and OTTHYMO-89.                  ******************
00016>  ********************************************************************************
00017>  ****************** Distributed by:  J.F. Sabourin and Associates Inc.           ******************
00018>  ******************                   Ottawa, Ontario: (613) 836-3884           ******************
00019>  ******************                   Gatineau, Quebec: (819) 243-6858          ******************
00020>  ******************                   E-Mail: swmhymo@jfsa.Com                  ******************
00021>  ********************************************************************************
00022>
00023>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024>  ++++++++++++++++++++  Licensed user: JFSAInc.                    ++++++++++++++++++++
00025>  ++++++++++++++++++++              Ottawa                SERIAL#: 2549237          ++++++++++++++++++++
00026>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028>  ********************************************************************************
00029>  ******************                                                ******************
00030>  ******************          ++++++ PROGRAM ARRAY DIMENSIONS ++++++ ******************
00031>  ******************          Maximum value for ID numbers  :   11  ******************
00032>  ******************          Max. number of rainfall points: 105408******************
00033>  ******************          Max. number of flow points    : 105408******************
00034>  ********************************************************************************
00035>
00036>  **********************************  S U M M A R Y   O U T P U T  **********************************
00037>  ********************************************************************************
00038>  *                    RUN DATE: 2021-03-04        TIME: 11:49:14       RUN COUNTER: 002082       *
00039>  ********************************************************************************
00040>  * Input   file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated*
00041>  *                3\SMR_S-1-Fr-Nash.dat                                                         *
00042>  * Output  file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated*
00043>  *                3\SMR_S-1-Fr-Nash.out                                                         *
00044>  * Summary file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated*
00045>  *                3\SMR_S-1-Fr-Nash.sum                                                         *
00046>  * User comments:                                                                            *
00047>  * 1:_____________________________________________________________________________________*
00048>  * 2:_____________________________________________________________________________________*
00049>  * 3:_____________________________________________________________________________________*
00050>  ********************************************************************************
00051>
00052>
00053>  #*******************************************************************************
00054>  #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00055>  #*******************************************************************************
00056>  #  Project Name: [Jock River]      Project Number: [1474-16]
00057>  #  Date        : 04-03-2021
00058>  #  Modeller    : [MM]
00059>  #  Company     : JFSAinc.
00060>  #  License #   : 2549237
00061>  #*******************************************************************************
00062>  # CALIBRATION OF SUMMER MODEL PARAMETERS
00063>  # USING CONTINUOUS SIMULATIONS
00064>  # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00065>  # Use data collected from May 1st to July 14, 2003
00066>  # 2020-11-30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0.1 instead of 0.0001)
00067>  # 2020-12-01 correct pond curve values
00068>  # 2020-12-01 change W_CLAR_BRAZ_XIMP to 0.55, SLPI=[0.5]/(% (impervious slope), and LGI up to 700m
00069>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TOF"], NHYDin=["SN_TOF"]) from 0.033 %(as per S
00070>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
00071>  # ------------------------------------------------------------------------------
00072>      ** END OF RUN :  1
00073>
00074>  ********************************************************************************
00075>
00076>
00077>
00078>
00079>
00080>  RUN#: COMMAND#
00081>  R0002: C00001-------------------------------------------------------------------------
00082>         START
00083>         [TZERO =     .00 hrs on      0]
00084>         [METOUT=   2     (1=imperial, 2=metric output)]
00085>         [NSTORM=   1 ]
00086>         [NRUN  = 0002 ]
00087>  #*******************************************************************************
00088>  #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00089>  #*******************************************************************************
00090>  #  Project Name: [Jock River]      Project Number: [1474-16]
00091>  #  Date        : 04-03-2021
00092>  #  Modeller    : [MM]
00093>  #  Company     : JFSAinc.
00094>  #  License #   : 2549237
00095>  #*******************************************************************************
00096>  # CALIBRATION OF SUMMER MODEL PARAMETERS
00097>  # USING CONTINUOUS SIMULATIONS
00098>  # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00099>  # Use data collected from May 1st to July 14, 2003
00100>  # 2020-11-30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0.1 instead of 0.0001)
00101>  # 2020-12-01 correct pond curve values
00102>  # 2020-12-01 change W_CLAR_BRAZ_XIMP to 0.55, SLPI=[0.5]/(% (impervious slope), and LGI up to 700m
00103>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TOF"], NHYDin=["SN_TOF"]) from 0.033 %(as per S
00104>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
00105>  # ------------------------------------------------------------------------------
00106>  R0002: C00002-------------------------------------------------------------------------
00107>         READ STORM
00108>         Filename = storm001
00109>         Comment  = Pluie SCS de 24 hres 1:2 ans pour Ottawa CDA
00110>         [SDT=10.00: SDUR=  24.00: PTOT=  45.51]
00111>  R0002: C00003-------------------------------------------------------------------------
00112>         MODIFY STORM
00113>         [RFACT=   1.00: TSHIFT= 960.00 min]
00114>         [SDT=10.00: SDUR=  40.00: PTOT=  45.51]
00115>  R0002: C00004-------------------------------------------------------------------------
00116>         DEFAULT VALUES
00117>         Filename = T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated3\CitiGate.DEF
00118>         [CASEdv  = 1 (read and print data)
00119>         FileTitle= File comment: [Based onvarious calibration exercises in Onta
00120>                    THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
00121>         Horton's infiltration equation parameters:
00122>         [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=   .00 mm]
00123>         Parameters for PERVIOUS surfaces in STANDHYD:
00124>         [IAper=   4.67 mm] [LGP=50.00 m] [MNP=  .250]
00125>         Parameters for IMPERVIOUS surfaces in STANDHYD:
00126>         [IAmp=    1.57 mm] [CLI= 1.50]   [MNI=  .013]
00127>         Parameters used in NASHYD:
00128>         [Ia=    4.67 mm] [N= 3.00]
00129>         Average monthly Pan Evaporation data in    (mm)
00130>         JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
00131>         .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
00132>         Average monthly Potential Evapotranspiration in    (mm)
00133>         JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
00134>         .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
00135>  R0002: C00005-------------------------------------------------------------------------
00136>         COMPUTE API
00137>         [APIini= 50.00: APIkdy=  .8500: APIkdt=  .9989]
00138>         [APImax= 80.12: APIavg=  56.74: APImin=  44.87]
00139>  #
00140>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00141>  # of 1.32
00142>  R0002: C00006-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00143>         CONTINUOUS NASHYD      1.0 01:JR_HW       3680.00     6.204 No_date   37:06   11.47 .252      .000
00144>         [CN= 64.0: N= 3.00: Tp= 7.13]
00145>         [IaREC= 4.00: SMN= 57.05: SMX=380.32: SK= .010]
00146>         [InterEventTime=  12.00]
00147>  #
00148>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00149>  # of 1.32
00150>  R0002: C00007-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00151>         CONTINUOUS NASHYD      1.0 01:SW_13        971.00     2.187 No_date   32:37   10.75 .236      .000
00152>         [CN= 61.0: N= 3.00: Tp= 3.76]
00153>         [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
00154>         [InterEventTime=  12.00]
00155>  #
00156>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00157>  # of 1.80
00158>  R0002: C00008-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00159>         CONTINUOUS NASHYD      1.0 01:JR_GWM      3074.00     3.218 No_date   39:59    9.43 .207      .000
00160>         [CN= 55.0: N= 3.00: Tp=11.33]
00161>         [IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
00162>         [InterEventTime=  12.00]
00163>  R0002: C00009-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00164>         CONTINUOUS NASHYD      1.0 01:JR_ASH      1781.00     5.504 No_date   32:45   13.94 .306      .000
00165>         [CN= 72.0: N= 3.00: Tp= 3.91]
00166>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00167>         [InterEventTime=  12.00]
00168>  R0002: C00010-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00169>         CONTINUOUS NASHYD      1.0 01:SW_11        500.00     2.720 No_date   29:22   11.98 .263      .000
00170>         [CN= 66.0: N= 3.00: Tp= 1.24]
00171>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00172>         [InterEventTime=  12.00]
00173>  #
00174>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00175>  # of 1.80
00176>  R0002: C00011-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00177>         CONTINUOUS NASHYD      1.0 01:SN_CK       1917.00     4.042 No_date   34:34   11.98 .263      .000
00178>         [CN= 66.0: N= 3.00: Tp= 5.29]
00179>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00180>         [InterEventTime=  12.00]
00181>  #
00182>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00183>  # of 1.52
00184>  R0002: C00012-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00185>         CONTINUOUS NASHYD      1.0 01:SW_10       5666.00    11.228 No_date   38:07   13.94 .306      .000
00186>         [CN= 72.0: N= 3.00: Tp= 8.00]
00187>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00188>         [InterEventTime=  12.00]
00189>  #
00190>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00191>  # of 1.75
00192>  R0002: C00013-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00193>         CONTINUOUS NASHYD      1.0 01:KG_CK       8376.00    11.072 No_date   39:59   11.98 .263      .000
00194>         [CN= 66.0: N= 3.00: Tp=11.66]
00195>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00196>         [InterEventTime=  12.00]
00197>  #
00198>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00199>  # of 1.68
00200>  R0002: C00014-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00201>         CONTINUOUS NASHYD      1.0 01:SW_9        1132.00     4.434 No_date   30:56   13.35 .293      .000
00202>         [CN= 70.0: N= 3.00: Tp= 2.51]
00203>         [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
00204>         [InterEventTime=  12.00]
00205>  #
00206>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00207>  # of 1.82
00208>  R0002: C00015-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00209>         CONTINUOUS NASHYD      1.0 01:NC_CK       4464.00     5.504 No_date   39:59   10.98 .241      .000
00210>         [CN= 62.0: N= 3.00: Tp=11.32]
00211>         [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
00212>         [InterEventTime=  12.00]
00213>  #
00214>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00215>  # of 1.80
00216>  R0002: C00016-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00217>         CONTINUOUS NASHYD      1.0 01:SW_8         131.00      .805 No_date   28:57   11.22 .247      .000
00218>         [CN= 63.0: N= 3.00: Tp=  .90]
00219>         [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
00220>         [InterEventTime=  12.00]
00221>  #
00222>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00223>  # of 1.65
00224>  R0002: C00017-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00225>         CONTINUOUS NASHYD      1.0 01:HB_DR       3854.00     6.242 No_date   38:46   11.98 .263      .000
00226>         [CN= 66.0: N= 3.00: Tp= 8.42]
00227>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00228>         [InterEventTime=  12.00]
00229>  #
00230>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00231>  # of 1.82
00232>  R0002: C00018-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00233>         CONTINUOUS NASHYD      1.0 01:SW_7        3197.00     4.651 No_date   36:31    9.85 .217      .000
00234>         [CN= 57.0: N= 3.00: Tp= 6.65]
00235>         [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
00236>         [InterEventTime=  12.00]
00237>  #
00238>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00239>  # of 1.75
00240>  R0002: C00019-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00241>         CONTINUOUS NASHYD      1.0 01:SW_6         165.00      .413 No_date   33:07   12.24 .269      .000
00242>         [CN= 67.0: N= 3.00: Tp= 4.18]
00243>         [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
00244>         [InterEventTime=  12.00]
00245>  #
00246>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00247>  # of 1.67
00248>  R0002: C00020-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00249>         CONTINUOUS NASHYD      1.0 01:VG_DR       1332.00     3.148 No_date   35:23   13.94 .306      .000
00250>         [CN= 72.0: N= 3.00: Tp= 5.95]
00251>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00252>         [InterEventTime=  12.00]
00253>  R0002: C00021-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00254>         CONTINUOUS NASHYD      1.0 01:SW_5         224.00     2.597 No_date   28:45   15.91 .350      .000
00255>         [CN= 77.0: N= 3.00: Tp=  .75]
00256>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00257>         [InterEventTime=  12.00]
00258>  #
00259>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00260>  # of 1.20
00261>  R0002: C00022-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00262>         CONTINUOUS NASHYD      1.0 01:FL_CK       4945.00    14.839 No_date   33:25   14.57 .320      .000
00263>         [CN= 74.0: N= 3.00: Tp= 4.45]
00264>         [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
00265>         [InterEventTime=  12.00]
00266>  R0002: C00023-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00267>         CONTINUOUS NASHYD      1.0 01:SW_5A2        20.00      .309 No_date   28:36   17.79 .391      .000
00268>         [CN= 81.0: N= 3.00: Tp=  .62]
00269>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00270>         [InterEventTime=  12.00]
00271>  #
00272>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00273>  # of 1.61
00274>  R0002: C00024-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00275>         CONTINUOUS NASHYD      1.0 01:SW_5A1      1412.00     3.090 No_date   38:04   15.22 .334      .000
00276>         [CN= 75.0: N= 3.00: Tp= 8.00]
00277>         [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
00278>         [InterEventTime=  12.00]
00279>  R0002: C00025-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00280>         CONTINUOUS NASHYD      1.0 01:SW_4         585.00     4.325 No_date   29:58   17.79 .391      .000
00281>         [CN= 81.0: N= 3.00: Tp= 1.75]
00282>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00283>         [InterEventTime=  12.00]
00284>  R0002: C00026-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00285>         CONTINUOUS NASHYD      1.0 01:LM_CK       1021.00     5.747 No_date   30:50   17.39 .382      .000
00286>         [CN= 80.0: N= 3.00: Tp= 2.46]
00287>         [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
00288>         [InterEventTime=  12.00]
00289>  R0002: C00027-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00290>         CONTINUOUS NASHYD      1.0 01:SW_2         177.00     2.052 No_date   28:45   15.91 .350      .000
00291>         [CN= 77.0: N= 3.00: Tp=  .75]
00292>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00293>         [InterEventTime=  12.00]
00294>  R0002: C00028-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00295>         CONTINUOUS NASHYD      1.0 01:SM_DR       1122.00     5.337 No_date   31:50   17.79 .391      .000
00296>         [CN= 81.0: N= 3.00: Tp= 3.25]
00297>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00298>         [InterEventTime=  12.00]
00299>  R0002: C00029-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00300>         CONTINUOUS NASHYD      1.0 01:MO_DR       2737.00    11.528 No_date   31:35   15.56 .342      .000
00301>         [CN= 76.0: N= 3.00: Tp= 3.03]
00302>         [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
00303>         [InterEventTime=  12.00]
00304>  #
00305>  # Routing hydrographs
00306>  #
00307>  # Starting with the addition of Jock River Headwater and Subwatershed 13
00308>  #
00309>  R0002: C00030-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00310>         ADD HYD                1.0 02:JR_HW       3680.00     6.204 No_date   37:06   11.47  n/a      .000
00311>                              + 1.0 02:SW_13        971.00     2.187 No_date   32:37   10.75  n/a      .000
00312>                            SUM= 1.0 01:S_N13      4651.00     7.871 No_date   35:37   11.32  n/a      .000
00313>  #
00314>  # Sum of hydrographs from Node 13 routed to Node 13A
00315>  # (Approximated cross-section - see cross-section 258)
00316>  # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00317>  #
00318>  R0002: C00031-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00319>         ROUTE CHANNEL     ->     1.0 02:S_N13       4651.00     7.871 No_date   35:37   11.32  n/a      .000
00320>         [RDT= 1.00]  out <-      1.0 01:N13A        4651.00     6.258 No_date   39:59   11.32  n/a      .000
00321>                                [L/S/n= 9074./  .022/  .040]
00322>                                [Vmax=   .429: Dmax= 2.557]
00323>  #
00324>  # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
00325>  #
00326>  R0002: C00032-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00327>         ADD HYD                1.0 02:N13A        4651.00     6.258 No_date   39:59   11.32  n/a      .000
00328>                              + 1.0 02:JR_GWM      3074.00     3.218 No_date   39:59    9.43  n/a      .000
00329>                            SUM= 1.0 01:SN13A      7725.00     9.475 No_date   39:59   10.57  n/a      .000
00330>  #
00331>  # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
00332>  #
00333>  R0002: C00033-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00334>         ROUTE RESERVOIR ->     1.0 02:SN13A       7725.00     9.475 No_date   39:59   10.57  n/a      .000
00335>                          out <= 1.0 01:RES_GM      7725.00     2.619 No_date   55:07   10.57  n/a      .000
00336>                 {MxStoUsed=  .3585E+02  m3}
00337>  #
00338>  R0002: C00034-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00339>         SAVE HYD               1.0 01:RES_GM      7725.00     2.619 No_date   55:07   10.57  n/a      .000
00340>         fname :H_RESGM
00341>         remark: Outflow from Res GM
00342>  # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
00343>  # (Approximated cross-section - see cross-section 258)
00344>  # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00345>  R0002: C00035-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00346>         ROUTE CHANNEL     ->     1.0 02:RES_GM      7725.00     2.619 No_date   55:07   10.57  n/a      .000
00347>         [RDT= 1.00]  out <-      1.0 01:N12         7725.00     2.609 No_date   58:09   10.57  n/a      .000
00348>                                [L/S/n= 5926./  .076/  .040]
00349>                                [Vmax=   .501: Dmax= 1.329]
00350>  #
00351>  # Addition of Subwatershed Jock River at Ashton to Node 12
00352>  #
00353>  R0002: C00036-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00354>         ADD HYD                1.0 02:N12         7725.00     2.609 No_date   58:08   10.57  n/a      .000
00355>                              + 1.0 02:JR_ASH      1781.00     5.504 No_date   32:45   13.94  n/a      .000
00356>                            SUM= 1.0 01:S_N12      9506.00     7.458 No_date   32:50   11.20  n/a      .000
00357>  R0002: C00037-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00358>         SAVE HYD               1.0 01:S_N12       9506.00     7.458 No_date   32:50   11.20  n/a      .000
00359>         fname :H_SN12
00360>         remark: flow at S_N12 near Ashton
00361>  #
00362>  # Sum of hydrographs from Node 12 routed to Node 11
00363>  # (Approximated cross-section - see cross-section 258)
00364>  # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00365>  #
00366>  # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
00367>  #
00368>  R0002: C00038-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00369>         ROUTE CHANNEL     ->     1.0 02:S_N12       9506.00     7.458 No_date   32:50   11.20  n/a      .000
00370>         [RDT= 1.00]  out <-      1.0 01:Dum11       9506.00     7.379 No_date   33:12   11.20  n/a      .000
00371>                                [L/S/n=  972./  .054/  .040]
00372>                                [Vmax=   .591: Dmax= 2.108]
00373>  #
00374>  # Addition of Subwatershed 11 and No Name Creek to Node 11
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00375> #
00376> R0002: C00039-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00377>       ADD HYD                    1.0 02: Dam1          9506.00     7.379 No_date   33:12   11.20  n/a      .000
00378>                          +       1.0 02: SW_11          500.00     2.720 No_date   29:22   11.98  n/a      .000
00379>                          +       1.0 02: NN_CK         1917.00     4.042 No_date   34:34   11.98  n/a      .000
00380>                          SUM=    1.0 01: S_N11        11923.00    12.077 No_date   33:14   11.36  n/a      .000
00381> #
00382> # Sum of hydrographs from Node 11 routed to Node 10
00383> # Section 1
00384> #
00385> R0002: C00040-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00386>       ROUTE CHANNEL   ->         1.0 02: S_N11         11923.00    12.077 No_date   33:14   11.36  n/a      .000
00387>         [RDT= 1.00] out <-       1.0 01: N10           11923.00     8.276 No_date   39:46   11.36  n/a      .000
00388>          [L/S/n=14028./ .157/.040]
00389>          {Vmx= .462: Dmx= .886}
00390> #
00391> # Addition of Subwatersheds 10 to Node 10
00392> #
00393> R0002: C00041-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00394>       ADD HYD                    1.0 02: N10           11923.00     8.276 No_date   39:46   11.36  n/a      .000
00395>                          +       1.0 02: SW_10          5666.00    11.228 No_date   38:07   13.94  n/a      .000
00396>                          SUM=    1.0 01: S_N10         17589.00    19.451 No_date   38:31   12.19  n/a      .000
00397> R0002: C00042-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00398>       SAVE HYD                   1.0 01: S_N10         17589.00    19.451 No_date   38:31   12.19  n/a      .000
00399>          fname : H_SN10
00400>          remark: flow at S_N10:  N10 + SW10
00401> # Addition of Kings Creek to S_N10
00402> #
00403> R0002: C00043-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00404>       ADD HYD                    1.0 02: S_N10         17589.00    19.451 No_date   38:31   12.19  n/a      .000
00405>                          +       1.0 02: KG_CK          8376.00    11.072 No_date   39:59   11.98  n/a      .000
00406>                          SUM=    1.0 01: S_N10A        25965.00    30.328 No_date   39:58   12.12  n/a      .000
00407> #
00408> # Sum of hydrographs from Node 10 routed to Node 9
00409> # Section 2
00410> #
00411> R0002: C00044-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00412>       ROUTE CHANNEL   ->         1.0 02: S_N10A        25965.00    30.328 No_date   39:58   12.12  n/a      .000
00413>         [RDT= 1.00] out <-       1.0 01: N9            25965.00    29.579 No_date   39:59   12.12  n/a      .000
00414>          [L/S/n= 3982./ .075/.040]
00415>          {Vmx= .595: Dmx= 1.208}
00416> #
00417> # Addition of Subwatershed 9 and Nichols Creek to Node 9
00418> #
00419> R0002: C00045-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00420>       ADD HYD                    1.0 02: N9            25965.00    29.579 No_date   39:59   12.12  n/a      .000
00421>                          +       1.0 02: SW_9           1132.00     4.434 No_date   30:56   13.35  n/a      .000
00422>                          +       1.0 02: NC_CK          4464.00     5.504 No_date   39:59   10.98  n/a      .000
00423>                          SUM=    1.0 01: S_N9          31561.00    36.313 No_date   39:59   12.00  n/a      .000
00424> #
00425> # Sum of hydrographs from Node 9 routed to Node 8
00426> # Section 3
00427> #
00428> R0002: C00046-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00429>       ROUTE CHANNEL   ->         1.0 02: S_N9          31561.00    36.313 No_date   39:59   12.00  n/a      .000
00430>         [RDT= 1.00] out <-       1.0 01: N8            31561.00    34.173 No_date   39:59   12.00  n/a      .000
00431>          [L/S/n= 2269./ .088/.045]
00432>          {Vmx= .418: Dmx= 1.281}
00433> #
00434> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
00435> #
00436> R0002: C00047-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00437>       ADD HYD                    1.0 02: N8            31561.00    34.173 No_date   39:59   12.00  n/a      .000
00438>                          +       1.0 02: SW_8            131.00     .805 No_date   28:57   11.22  n/a      .000
00439>                          +       1.0 02: HB_DR          3854.00     6.242 No_date   38:46   11.98  n/a      .000
00440>                          SUM=    1.0 01: S_N8          35546.00    40.474 No_date   39:59   12.00  n/a      .000
00441> #
00442> # Sum of hydrographs from Node 8 routed to Node 7
00443> # Section 4
00444> #
00445> R0002: C00048-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00446>       ROUTE CHANNEL   ->         1.0 02: S_N8          35546.00    40.474 No_date   39:59   12.00  n/a      .000
00447>         [RDT= 1.00] out <-       1.0 01: N7            35546.00    32.891 No_date   44:30   12.00  n/a      .000
00448>          [L/S/n= 3750./ .053/.070]
00449>          {Vmx= .208: Dmx= 1.651}
00450> #
00451> # Addition of Subwatershed 7 to Node 7
00452> #
00453> R0002: C00049-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00454>       ADD HYD                    1.0 02: N7            35546.00    32.891 No_date   44:30   12.00  n/a      .000
00455>                          +       1.0 02: SW_7           3197.00     4.651 No_date   36:31    9.85  n/a      .000
00456>                          SUM=    1.0 01: S_N7          38743.00    35.071 No_date   43:33   11.82  n/a      .000
00457> R0002: C00050-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00458>       SAVE HYD                   1.0 01: S_N7          38743.00    35.071 No_date   43:33   11.82  n/a      .000
00459>          fname : H_SN7
00460>          remark: flow at S_N7:  N7 + SW_7
00461> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
00462> # Storage area and volumes were estimated from available topo maps.
00463> # Release rate from Fen was assumed to be controlled by the downstream
00464> # river cross-section for summer conditions.  It is was assumed that for up to
00465> # 0.75 m of water, the main channel of the river provided the storage.  Above
00466> # this depth, the wetland starts to significantly store water.
00467> #
00468> R0002: C00051-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00469>       ROUTE RESERVOIR ->         1.0 02: S_N7          38743.00    35.071 No_date   43:33   11.82  n/a      .000
00470>                          out <=  1.0 01: RES_RF        38743.00    23.265 No_date   55:09   11.82  n/a      .000
00471>          [MaxStOked=.7801E+02   m3]
00472> R0002: C00052-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00473>       SAVE HYD                   1.0 01: RES_RF        38743.00    23.265 No_date   55:09   11.82  n/a      .000
00474>          fname : H_ResRF
00475>          remark: outflow of Richmond Fen
00476> #
00477> # Sum of hydrographs from Node 7 routed to Node 6
00478> # Section 5
00479> #
00480> R0002: C00053-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00481>       ROUTE CHANNEL   ->         1.0 02: RES_RF        38743.00    23.265 No_date   55:09   11.82  n/a      .000
00482>         [RDT= 1.00] out <-       1.0 01: N6            38743.00    23.228 No_date   56:38   11.82  n/a      .000
00483>          [L/S/n= 3056./ .082/.025]
00484>          {Vmx= .432: Dmx= .808}
00485> #
00486> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
00487> #
00488> R0002: C00054-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00489>       ADD HYD                    1.0 02: N6            38743.00    23.228 No_date   56:38   11.82  n/a      .000
00490>                          +       1.0 02: SW_6            165.00     .413 No_date   33:07   12.24  n/a      .000
00491>                          +       1.0 02: VG_DR          1332.00     3.148 No_date   35:23   13.94  n/a      .000
00492>                          SUM=    1.0 01: S_N6          40240.01    23.318 No_date   39:59   11.89  n/a      .000
00493> #
00494> # Sum of hydrographs from Node 6 routed to Node 5
00495> # Section 6
00496> #
00497> R0002: C00055-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00498>       ROUTE CHANNEL   ->         1.0 02: S_N6          40240.01    23.318 No_date   39:59   11.89  n/a      .000
00499>         [RDT= 1.00] out <-       1.0 01: N5            40240.01    23.285 No_date   56:09   11.89  n/a      .000
00500>          [L/S/n= 1852./ .054/.035]
00501>          {Vmx= .378: Dmx= .917}
00502> #
00503> # Addition of Subwatershed 5 and Flowing Creek to Node 5
00504> #
00505> R0002: C00056-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00506>       ADD HYD                    1.0 02: N5            40240.01    23.285 No_date   56:09   11.89  n/a      .000
00507>                          +       1.0 02: SW_5            224.00     .597 No_date   28:45   15.91  n/a      .000
00508>                          +       1.0 02: FL_CK          4945.00    14.839 No_date   33:25   14.57  n/a      .000
00509>                          SUM=    1.0 01: S_N5          45409.01    33.166 No_date   37:08   12.20  n/a      .000
00510> #
00511> # Sum of hydrographs from Node 5 routed to Node 5A
00512> # Section 7
00513> #
00514> R0002: C00057-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00515>       ROUTE CHANNEL   ->         1.0 02: S_N5          45409.01    33.166 No_date   37:08   12.20  n/a      .000
00516>         [RDT= 1.00] out <-       1.0 01: N5A           45409.01    33.135 No_date   37:20   12.20  n/a      .000
00517>          [L/S/n=  556./ .090/.040]
00518>          {Vmx= .443: Dmx= .937}
00519> #
00520> # Addition of Subwatershed 5AI and Subwatershed 5A2 to Node 5A
00521> #
00522> R0002: C00058-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00523>       ADD HYD                    1.0 02: N5A           45409.01    33.135 No_date   37:20   12.20  n/a      .000
00524>                          +       1.0 02: SW_5A2           20.00     .309 No_date   28:36   17.79  n/a      .000
00525>                          +       1.0 02: SW_5AI         1412.00     3.090 No_date   38:04   15.22  n/a      .000
00526>                          SUM=    1.0 01: S_N5A         46841.01    36.236 No_date   37:28   12.30  n/a      .000
00527> #
00528> # Sum of hydrographs from Node 5A routed to Node 4
00529> # Section 8
00530> #
00531> R0002: C00059-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00532>       ROUTE CHANNEL   ->         1.0 02: S_N5A         46841.01    36.236 No_date   37:28   12.30  n/a      .000
00533>         [RDT= 1.00] out <-       1.0 01: N4            46841.01    35.288 No_date   39:22   12.30  n/a      .000
00534>          [L/S/n= 4630./ .043/.035]
00535>          {Vmx= .695: Dmx= 2.844}
00536> #
00537> # Addition of Subwatershed 4 and Leamy Creek to Node 4
00538> #
00539> R0002: C00060-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00540>       ADD HYD                    1.0 02: N4            46841.01    35.288 No_date   39:22   12.30  n/a      .000
00541>                          +       1.0 02: SW_4            585.00     4.325 No_date   29:58   17.79  n/a      .000
00542>                          +       1.0 02: LM_CK          1021.00     5.747 No_date   30:50   17.39  n/a      .000
00543>                          SUM=    1.0 01: S_N4          48447.00    37.581 No_date   38:13   12.47  n/a      .000
00544> R0002: C00061-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00545>       SAVE HYD                   1.0 01: S_N4          48447.00    37.581 No_date   38:13   12.47  n/a      .000
00546>          fname : S_N4. 0002
00547>          remark: flow at S_N4
00548> #
00549> # Sum of hydrographs from Node 4 routed to Node 2
00550> # Section 9
00551> #
00552> R0002: C00062-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00553>       ROUTE CHANNEL   ->         1.0 02: S_N4          48447.00    37.581 No_date   38:13   12.47  n/a      .000
00554>         [RDT= 1.00] out <-       1.0 01: N2            48447.00    37.455 No_date   38:49   12.47  n/a      .000
00555>          [L/S/n= 1667./ .060/.040]
00556>          {Vmx= .715: Dmx= 2.845}
00557> #
00558> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
00559> #
00560> R0002: C00063-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00561>       ADD HYD                    1.0 02: N2            48447.00    37.455 No_date   38:49   12.47  n/a      .000
00562>                          +       1.0 02: SW_2            177.00     2.052 No_date   28:45   15.91  n/a      .000
00563>                          +       1.0 02: SM_DR          1122.00     5.337 No_date   31:50   17.79  n/a      .000
00564>                          +       1.0 02: MO_DR          2737.00    11.528 No_date   31:35   15.56  n/a      .000
00565>                          SUM=    1.0 01: S_N2          52483.00    46.294 No_date   33:33   12.76  n/a      .000
00566> R0002: C00064-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00567>       SAVE HYD                   1.0 01: S_N2          52483.00    46.294 No_date   33:33   12.76  n/a      .000
00568>          fname : H_SN2
00569>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
00570> #
00571> # Sum of hydrographs from Node 2 routed to Node 1
00572> # Section 10
00573> #
00574> #*******************************************************************************
00575> #
00576> # Hydrograph from Node 2 routed to Node 416
00577> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
00578> #
00579> R0002: C00065-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00580>       ROUTE CHANNEL   ->         1.0 02: S_N2          52483.00    46.294 No_date   33:33   12.76  n/a      .000
00581>         [RDT= 1.00] out <-       1.0 01: N_416         52483.00    45.431 No_date   35:37   12.76  n/a      .000
00582>          [L/S/n= 2327./ .050/.055]
00583>          {Vmx= .577: Dmx= 2.212}
00584> #*******************************************************************************
00585> #     Catchment SW1a
00586> #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
00587> #     - Undeveloped agricultural land
00588> #*******************************************************************************
00589> R0002: C00066-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00590>       CONTINUOUS NASHYD          1.0 01: SW1a          536.42     1.885 No_date   31:21   13.01  .286      .000
00591>          [CN= 72.0: N= 3.00: Tp= 1.79]
00592>          [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00593>          [InterEventTime= 12.00]
00594> R0002: C00067-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00595>       CONTINUOUS NASHYD          1.0 01: S-1-Okeefe     44.93      .373 No_date   29:09   14.83  .326      .000
00596>          [CN= 77.0: N= 3.00: Tp= 1.05]
00597>          [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00598>          [InterEventTime= 12.00]
00599> R0002: C00068-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00600>       ADD HYD                    1.0 02: N_416         52483.00    45.431 No_date   35:37   12.76  n/a      .000
00601>                          +       1.0 02: SW_1a           536.42     1.885 No_date   31:21   13.01  n/a      .000
00602>                          +       1.0 02: S-1-Okeefe       44.93      .373 No_date   29:09   14.83  n/a      .000
00603>                          SUM=    1.0 01: SN_416        53064.36    46.600 No_date   35:24   12.76  n/a      .000
00604> R0002: C00069-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00605>       SAVE HYD                   1.0 01: SN_416        53064.36    46.600 No_date   35:24   12.76  n/a      .000
00606>          fname : SN_416. 0002
00607>          remark: Total Flows at Highway 416
00608> #
00609> # Hydrograph from Node 416 routed to Node at Okeefe drain
00610> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
00611> #
00612> R0002: C00070-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00613>       ROUTE CHANNEL   ->         1.0 02: SN_416        53064.36    46.600 No_date   35:24   12.76  n/a      .000
00614>         [RDT= 1.00] out <-       1.0 01: N_OK          53064.36    46.592 No_date   35:24   12.76  n/a      .000
00615>          [L/S/n=  497./ .302/.055]
00616>          {Vmx= 1.190: Dmx= 1.879}
00617> #*******************************************************************************
00618> #     Catchment OKEEFE
00619> #     - To O'Keefe drain (north of the Jock)
00620> #     - Developed with assumed 43% imp.
00621> #     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
00622> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
00623> #*******************************************************************************
00624> R0002: C00071-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00625>       CONTINUOUS NASHYD          1.0 01: O-1            63.72      .305 No_date   28:59    9.62  .211      .000
00626>          [CN= 61.0: N= 3.00: Tp= .90]
00627>          [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
00628>          [InterEventTime= 12.00]
00629> R0002: C00072-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00630>       ROUTE CHANNEL   ->         1.0 02: O-1            63.72      .305 No_date   28:59    9.62  n/a      .000
00631>         [RDT= 1.00] out <-       1.0 01: O-1R           63.72      .272 No_date   29:20    9.62  n/a      .000
00632>          [L/S/n=  960./ .630/.043]
00633>          {Vmx= .589: Dmx= .212}
00634> R0002: C00073-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00635>       CONTINUOUS NASHYD          1.0 01: O-2            28.61      .110 No_date   29:14    9.11  .200      .000
00636>          [CN= 57.0: N= 3.00: Tp= 1.10]
00637>          [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
00638>          [InterEventTime= 12.00]
00639> R0002: C00074-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00640>       CONTINUOUS NASHYD          1.0 01: O-4            46.94      .126 No_date   29:02    7.06  .155      .000
00641>          [CN= 49.0: N= 3.00: Tp= .90]
00642>          [IaREC= 4.00: SMN=104.59: SMX=697.25: SK= .010]
00643>          [InterEventTime= 12.00]
00644> R0002: C00075-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00645>       ADD HYD                    1.0 02: O-1R           63.72      .272 No_date   29:20    9.62  n/a      .000
00646>                          +       1.0 02: O-2            28.61      .110 No_date   29:14    9.11  n/a      .000
00647>                          +       1.0 02: O-4            46.94      .126 No_date   29:02    7.06  n/a      .000
00648>                          SUM=    1.0 01: OKF-N         139.27      .504 No_date   29:15    8.65  n/a      .000
00649> R0002: C00076-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00650>       ROUTE CHANNEL   ->         1.0 02: OKF-N         139.27      .504 No_date   29:15    8.65  n/a      .000
00651>         [RDT= 1.00] out <-       1.0 01: OKF-NR        139.27      .502 No_date   29:20    8.65  n/a      .000
00652>          [L/S/n=  210./ .810/.043]
00653>          {Vmx=  .722: Dmx=  .437}
00654> R0002: C00077-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00655>       CONTINUOUS NASHYD          1.0 01: O-6            16.46      .042 No_date   28:47    6.40  .141      .000
00656>          [CN= 43.0: N= 3.00: Tp= .60]
00657>          [IaREC= 4.00: SMN=134.47: SMX=896.47: SK= .010]
00658>          [InterEventTime= 12.00]
00659> R0002: C00078-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00660>       CONTINUOUS STANDHYD        1.0 01: O-3            39.67      .402 No_date   28:28   11.03  .242      .000
00661>          [XIMP= .15: TIMP= .30]
00662>          [LOSS= 2 : CN= 50.0]
00663>          [Pervious      area: IAper= 4.67: SLPP= .32: LGP= 440. : MNP= .035: SCP=    .0]
00664>          [Impervious    area: IAimp= 1.57: SLPI= .32: LGI=1880. : MNI= .013: SCI=    .0]
00665>          [IaRECImp=    4.00: IaRECPer=    4.00]
00666>          [SMN= 99.77: SMX=665.12: SK= .010]
00667> R0002: C00079-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00668>       CONTINUOUS STANDHYD        1.0 01: O-5            60.63      .937 No_date   28:10   12.08  .265      .000
00669>          [XIMP= .13: TIMP= .26]
00670>          [LOSS= 2 : CN= 61.0]
00671>          [Pervious      area: IAper= 4.67: SLPP=1.38: LGP= 550. : MNP= .035: SCP=    .0]
00672>          [Impervious    area: IAimp= 1.57: SLPI=1.38: LGI=1450. : MNI= .013: SCI=    .0]
00673>          [IaRECImp=    4.00: IaRECPer=    4.00]
00674>          [SMN= 64.50: SMX=430.01: SK= .010]
00675> R0002: C00080-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00676>       ADD HYD                    1.0 02: OKF-NR        139.27      .502 No_date   29:20    8.65  n/a      .000
00677>                          +       1.0 02: O-3            39.67      .402 No_date   28:28   11.03  n/a      .000
00678>                          +       1.0 02: O-5            60.63      .937 No_date   28:10   12.08  n/a      .000
00679>                          +       1.0 02: O-6            16.46      .042 No_date   28:47    6.40  n/a      .000
00680>                          SUM=    1.0 01: PT1           256.03     1.441 No_date   28:30    9.69  n/a      .000
00681> R0002: C00081-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00682>       CONTINUOUS NASHYD          1.0 01: O-7             5.28      .024 No_date   28:38    8.02  .176      .000
00683>          [CN= 54.0: N= 3.00: Tp= .60]
00684>          [IaREC= 4.00: SMN= 87.01: SMX=580.07: SK= .010]
00685>          [InterEventTime= 12.00]
00686> R0002: C00082-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00687>       ADD HYD                    1.0 02: PT1           256.03     1.441 No_date   28:30    9.69  n/a      .000
00688>                          +       1.0 02: O-7             5.28      .024 No_date   28:38    8.02  n/a      .000
00689>                          SUM=    1.0 01: PF            261.31     1.465 No_date   28:30    9.65  n/a      .000
00690> R0002: C00083-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00691>       ROUTE CHANNEL   ->         1.0 02: PF            261.31     1.465 No_date   28:30    9.65  n/a      .000
00692>         [RDT= 1.00] out <-       1.0 01: DRAI NI       261.31     1.446 No_date   28:36    9.65  n/a      .000
00693>          [L/S/n=  302./1.000/.043]
00694>          {Vmx= .953: Dmx= .543}
00695> R0002: C00084-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00696>       CONTINUOUS NASHYD          1.0 01: DI              1.17      .026 No_date   28:12   15.66  .344      .000
00697>          [CN= 84.0: N= 3.00: Tp= .28]
00698>          [IaREC= 4.00: SMN= 21.09: SMX=140.62: SK= .010]
00699>          [InterEventTime= 12.00]
00700> R0002: C00085-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00701>       CONTINUOUS STANDHYD        1.0 01: AI             2.50      .256 No_date   28:01   34.35  .755      .000
00702>          [XIMP= .68: TIMP= .85]
00703>          [Horton parameters: Fo= 76.20: Fc= 13.20: DCAY=4.14:    F=    .00]
00704>          [Pervious      area: IAper= 4.67: SLPP= .50: LGP=  50. : MNP= .250: SCP=    .0]
00705>          [Impervious    area: IAimp= 1.57: SLPI= .50: LGI= 224. : MNI= .013: SCI=    .0]
00706>          [IaRECImp=    4.00: IaRECPer=    4.00]
00707> R0002: C00086-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00708>       ROUTE RESERVOIR ->         1.0 02: AI             2.50      .256 No_date   28:01   34.35  n/a      .000
00709>                          out <=  1.0 01: AI- STR        2.50      .048 No_date   28:35   34.35  n/a      .000
00710>                overflow <=       1.0 03: AI- OVF         .00      .000 No_date    0:00     .00  n/a      .000
00711>          [MxStOked=.4261E-01   m3,  Tot Ovr Vol =.0000E+00   m3,  N-Ovf=    0,  Tot Dur Ovf=    0. hrs]
00712> R0002: C00087-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00713>       CONTINUOUS STANDHYD        1.0 01: ST- 2           .59      .044 No_date   28:00   25.32  .556      .000
00714>          [XIMP= .46: TIMP= .57]
00715>          [Horton parameters: Fo= 76.20: Fc= 13.20: DCAY=4.14:    F=    .00]
00716>          [Pervious      area: IAper= 4.67: SLPP= .50: LGP=  50. : MNP= .250: SCP=    .0]
00717>          [Impervious    area: IAimp= 1.57: SLPI= .50: LGI= 109. : MNI= .013: SCI=    .0]
00718>          [IaRECImp=    4.00: IaRECPer=    4.00]
00719> R0002: C00088-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00720>       ROUTE RESERVOIR ->         1.0 02: ST- 2           .59      .044 No_date   28:00   25.32  n/a      .000
00721>                          out <=  1.0 01: ST2STR         .59      .041 No_date   28:02   25.32  n/a      .000
00722>                overflow <=       1.0 03: ST2OVF         .00      .000 No_date    0:00     .00  n/a      .000
00723>          [MxStOked=.7924E-03   m3,  Tot Ovr Vol =.0000E+00   m3,  N-Ovf=    0,  Tot Dur Ovf=    0. hrs]
00724> R0002: C00089-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00725>       CONTINUOUS NASHYD          1.0 01: O-8            60.55      .405 No_date   29:05   12.46  .274      .000
00726>          [CN= 69.0: N= 3.00: Tp= 1.00]
00727>          [IaREC= 4.00: SMN= 44.82: SMX=298.82: SK= .010]
00728>          [InterEventTime= 12.00]
00729> R0002: C00090-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00730>       ROUTE PIPE      ->         1.0 02: O-8            60.55      .405 No_date   29:05   12.46  n/a      .000
00731>         [RDT= 1.00] out <-       1.0 01: OKPI PE        60.55      .402 No_date   29:10   12.46  n/a      .000
00732>          [L/S/n=  335./ .100/.013]
00733>          {Vmx=  .842: Dmx=  .265}
00734>          [HGTH= 1.20: WDTH= 1.80]
00735> R0002: C00091-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00736>       ADD HYD                    1.0 02: DRAI NI       261.31     1.446 No_date   28:36    9.65  n/a      .000
00737>                          +       1.0 02: DI              1.17      .026 No_date   28:12   15.66  n/a      .000
00738>                          +       1.0 02: AI- STR         2.50      .048 No_date   28:35   34.35  n/a      .000
00739>                          +       1.0 02: AI- OVF          .00      .000 No_date    0:00     .00  n/a      .000
00740>                          +       1.0 02: ST2STR           .59      .041 No_date   28:02   25.32  n/a      .000
00741>                          +       1.0 02: ST2OVF           .00      .000 No_date    0:00     .00  n/a      .000
00742>                          +       1.0 02: OKPI PE        60.55      .402 No_date   29:10   12.46  n/a      .000
00743>                          SUM=    1.0 01: ST2- 1N        326.12     1.834 No_date   28:39   10.41  n/a      .000
00744> R0002: C00092-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00745>       CONTINUOUS STANDHYD        1.0 01: A7             3.51      .348 No_date   28:02   34.35  .755      .000
00746>          [XIMP= .68: TIMP= .85]
00747>          [Horton parameters: Fo= 76.20: Fc= 13.20: DCAY=4.14:    F=    .00]
00748>          [Pervious      area: IAper= 4.67: SLPP= .50: LGP=  50. : MNP= .250: SCP=    .0]
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00749>          [Impervious     area: IAi mp= 1. 57: SLPI = . 50: LGI = 265. : MNI =. 013: SCI =    .0]
00750>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00751> R0002: C00093- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00752>      ROUTE RESERVOI R -> 1. 0 02: A7                3. 51          . 348 No_date   28: 02   34. 35   n/ a      . 000
00753>                  out <=  1. 0 01: A7- STR           3. 51          . 067 No_date   28: 36   34. 35   n/ a      . 000
00754>              overflow <= 1. 0 03: A7- OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00755>          [MaxStoVol=. 60022E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00756> R0002: C00094- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00757>          CONTI NUOUS STANDHYD    1. 0 01: ST- 3          . 71          . 053 No_date   28: 00   25. 32   . 556    . 000
00758>          [ XI MP=. 46: TI MP=. 57]
00759>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00760>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00761>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI = 119. : MNI =. 013: SCI =    .0]
00762>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00763> R0002: C00095- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00764>      ROUTE RESERVOI R -> 1. 0 02: ST- 3              . 71          . 053 No_date   28: 00   25. 32   n/ a      . 000
00765>                  out <=  1. 0 01: ST3STR            . 71          . 050 No_date   28: 02   25. 32   n/ a      . 000
00766>              overflow <= 1. 0 03: ST3OVF             . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00767>          [MaxStoVol=. 7947E- 03   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00768> R0002: C00096- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00769>          ADD HYD         1. 0 02: ST2- 1 N       326. 12        1. 834 No_date   28: 39   10. 41   n/ a      . 000
00770>                      +   1. 0 02: A7- STR          3. 51          . 067 No_date   28: 36   34. 35   n/ a      . 000
00771>                      +   1. 0 02: A7- OVF          . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00772>                      +   1. 0 02: ST3STR           . 71          . 050 No_date   28: 02   25. 32   n/ a      . 000
00773>                      +   1. 0 02: ST3OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00774>                      SUM=  1. 0 01: PT2ST3       330. 34        1. 912 No_date   28: 38   10. 70   n/ a      . 000
00775> R0002: C00097- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00776>      ROUTE CHANNEL   -> 1. 0 02: PT2ST3          330. 34        1. 912 No_date   28: 38   10. 70   n/ a      . 000
00777>      [ RDT=  1. 00]  out <-  1. 0 01: DRAI N2    330. 34        1. 821 No_date   28: 57   10. 70   n/ a      . 000
00778>          [ L/ S/ n=   592. / . 230/ . 043]
00779>          [ Vmax=   . 681: Dmax=   . 785]
00780> R0002: C00098- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00781>          CONTI NUOUS NASHYD      1. 0 01: I D2           2. 28          . 021 No_date   29: 07   15. 66   . 344    . 000
00782>          [ CN=  84. 0:  N=  3. 00:  Tp=   . 99]
00783>          [ IaREC=  4. 00:  SMN=  21. 09:  SMX=  140. 62:  SK=  . 010]
00784>          [ InterEvent Time=   12. 00]
00785> R0002: C00099- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00786>          CONTI NUOUS STANDHYD    1. 0 01: AI 7          12. 04        1. 030 No_date   28: 04   34. 35   . 755    . 000
00787>          [ XI MP=. 68: TI MP=. 85]
00788>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00789>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00790>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI = 491. : MNI =. 013: SCI =    .0]
00791>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00792> R0002: C00100- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00793>      ROUTE RESERVOI R -> 1. 0 02: AI 7              12. 04        1. 030 No_date   28: 04   34. 35   n/ a      . 000
00794>                  out <=  1. 0 01: AI 7STR           12. 04          . 220 No_date   28: 42   34. 35   n/ a      . 000
00795>              overflow <= 1. 0 03: AI 7OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00796>          [MaxStoVol=. 9042E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00797> R0002: C00101- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00798>          CONTI NUOUS STANDHYD    1. 0 01: ST- 4          . 35          . 027 No_date   28: 00   25. 32   . 556    . 000
00799>          [ XI MP=. 46: TI MP=. 57]
00800>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00801>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00802>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI = 84. : MNI =. 013: SCI =    .0]
00803>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00804> R0002: C00102- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00805>      ROUTE RESERVOI R -> 1. 0 02: ST- 4              . 35          . 027 No_date   28: 00   25. 32   n/ a      . 000
00806>                  out <=  1. 0 01: ST4STR            . 35          . 023 No_date   28: 03   25. 32   n/ a      . 000
00807>              overflow <= 1. 0 03: ST4OVF             . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00808>          [MaxStoVol=. 7487E- 03   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00809> R0002: C00103- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00810>          CONTI NUOUS STANDHYD    1. 0 01: AI 8           5. 30          . 500 No_date   28: 03   34. 35   . 755    . 000
00811>          [ XI MP=. 68: TI MP=. 85]
00812>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00813>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00814>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI = 326. : MNI =. 013: SCI =    .0]
00815>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00816> R0002: C00104- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00817>      ROUTE RESERVOI R -> 1. 0 02: AI 8               5. 30          . 500 No_date   28: 03   34. 35   n/ a      . 000
00818>                  out <=  1. 0 01: AI 8STR           5. 30          . 099 No_date   28: 38   34. 35   n/ a      . 000
00819>              overflow <= 1. 0 03: AI 8OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00820>          [MaxStoVol=. 9042E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00821> R0002: C00105- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00822>          ADD HYD         1. 0 02: DRAI N2        330. 34        1. 821 No_date   28: 57   10. 70   n/ a      . 000
00823>                      +   1. 0 02: I D2             2. 28          . 021 No_date   29: 07   15. 66   n/ a      . 000
00824>                      +   1. 0 02: AI 7STR         12. 04          . 220 No_date   28: 42   34. 35   n/ a      . 000
00825>                      +   1. 0 02: AI 7OVF          . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00826>                      +   1. 0 02: ST4STR           . 35          . 023 No_date   28: 03   25. 32   n/ a      . 000
00827>                      +   1. 0 02: ST4OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00828>                      +   1. 0 02: AI 8STR          5. 30          . 099 No_date   28: 38   34. 35   n/ a      . 000
00829>                      +   1. 0 02: AI 8OVF          . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00830>                      SUM=  1. 0 01: PT3ST4       350. 31        2. 146 No_date   28: 54   11. 92   n/ a      . 000
00831> R0002: C00106- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00832>      ROUTE CHANNEL   -> 1. 0 02: PT3ST4          350. 31        2. 146 No_date   28: 54   11. 92   n/ a      . 000
00833>      [ RDT=  1. 00]  out <-  1. 0 01: DRAI N3    350. 31        2. 088 No_date   29: 08   11. 92   n/ a      . 000
00834>          [ L/ S/ n=   525. / . 230/ . 043]
00835>          [ Vmax=   . 707: Dmax=   . 833]
00836> R0002: C00107- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00837>          CONTI NUOUS NASHYD      1. 0 01: I D3           2. 51          . 033 No_date   28: 46   17. 40   . 382    . 000
00838>          [ CN=  86. 0:  N=  3. 00:  Tp=   . 73]
00839>          [ IaREC=  4. 00:  SMN=  17. 43:  SMX=  116. 21:  SK=  . 010]
00840>          [ InterEvent Time=   12. 00]
00841> R0002: C00108- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00842>          CONTI NUOUS STANDHYD    1. 0 01: CI             3. 41          . 339 No_date   28: 02   34. 35   . 755    . 000
00843>          [ XI MP=. 68: TI MP=. 85]
00844>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00845>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00846>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI = 261. : MNI =. 013: SCI =    .0]
00847>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00848> R0002: C00109- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00849>      ROUTE RESERVOI R -> 1. 0 02: CI                 3. 41          . 339 No_date   28: 02   34. 35   n/ a      . 000
00850>                  out <=  1. 0 01: CI- STR           3. 41          . 065 No_date   28: 36   34. 35   n/ a      . 000
00851>              overflow <= 1. 0 03: CI- OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00852>          [MaxStoVol=. 8806E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00853> R0002: C00110- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00854>          CONTI NUOUS STANDHYD    1. 0 01: ST- 5          . 45          . 034 No_date   28: 00   25. 32   . 556    . 000
00855>          [ XI MP=. 46: TI MP=. 57]
00856>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00857>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00858>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI = 95. : MNI =. 013: SCI =    .0]
00859>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00860> R0002: C00111- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00861>      ROUTE RESERVOI R -> 1. 0 02: ST- 5              . 45          . 034 No_date   28: 00   25. 32   n/ a      . 000
00862>                  out <=  1. 0 01: ST5STR            . 45          . 031 No_date   28: 03   25. 32   n/ a      . 000
00863>              overflow <= 1. 0 03: ST5OVF             . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00864>          [MaxStoVol=. 7682E- 03   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00865> R0002: C00112- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00866>          ADD HYD         1. 0 02: DRAI N3        350. 31        2. 088 No_date   29: 08   11. 92   n/ a      . 000
00867>                      +   1. 0 02: I D3             2. 51          . 033 No_date   28: 46   17. 40   n/ a      . 000
00868>                      +   1. 0 02: CI- STR          3. 41          . 065 No_date   28: 36   34. 35   n/ a      . 000
00869>                      +   1. 0 02: CI- OVF           . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00870>                      +   1. 0 02: ST5STR           . 45          . 031 No_date   28: 03   25. 32   n/ a      . 000
00871>                      +   1. 0 02: ST5OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00872>                      SUM=  1. 0 01: ST5- E       356. 68        2. 174 No_date   29: 07   12. 19   n/ a      . 000
00873> R0002: C00113- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00874>          CONTI NUOUS STANDHYD    1. 0 01: STRAND         7. 59          . 471 No_date   28: 13   33. 47   . 735    . 000
00875>          [ XI MP=. 64: TI MP=. 85]
00876>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00877>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  40. : MNP=. 250: SCP=    .0]
00878>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI =1230. : MNI =. 013: SCI =    .0]
00879>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00880> R0002: C00114- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00881>      ROUTE RESERVOI R -> 1. 0 02: STRAND             7. 59          . 471 No_date   28: 13   33. 47   n/ a      . 000
00882>                  out <=  1. 0 01: S- POND            7. 59          . 032 No_date   30: 14   33. 47   n/ a      . 000
00883>              overflow <= 1. 0 03: S- OVF             . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00884>          [MaxStoVol=. 1805E+00   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00885> R0002: C00115- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00886>          ADD HYD         1. 0 02: ST5- E         356. 68        2. 174 No_date   29: 07   12. 19   n/ a      . 000
00887>                      +   1. 0 02: S- POND           7. 59          . 032 No_date   30: 14   33. 47   n/ a      . 000
00888>                      +   1. 0 02: S- OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00889>                      SUM=  1. 0 01: SSAOUT       364. 27        2. 204 No_date   29: 07   12. 63   n/ a      . 000
00890> R0002: C00116- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00891>          SAVE HYD        1. 0 01: SSAOUT         364. 27        2. 204 No_date   29: 07   12. 63   n/ a      . 000
00892>              fname : SSAOUT. 0002
00893>              remark: SSAOUT
00894> R0002: C00117- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00895>          CONTI NUOUS STANDHYD    1. 0 01: Area- A        66. 75        3. 902 No_date   28: 13   32. 66   . 718    . 000
00896>          [ XI MP=. 64: TI MP=. 80]
00897>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00898>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00899>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI =1155. : MNI =. 013: SCI =    .0]
00900>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00901> R0002: C00118- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00902>          SAVE HYD        1. 0 01: Area- A        66. 75        3. 902 No_date   28: 13   32. 66   n/ a      . 000
00903>              fname : Area- A. 0002
00904>              remark: SMWF- A Inflow
00905> R0002: C00119- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00906>      ROUTE RESERVOI R -> 1. 0 02: Area- A            66. 75        3. 902 No_date   28: 13   32. 66   n/ a      . 000
00907>                  out <=  1. 0 01: SWMF- A           66. 75          . 126 No_date   32: 26   32. 66   n/ a      . 000
00908>              overflow <= 1. 0 03: SWMFOV             . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00909>          [MaxStoVol=. 1708E+01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00910> R0002: C00120- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00911>          SAVE HYD        1. 0 01: SWMF- A        66. 75          . 126 No_date   32: 26   32. 66   n/ a      . 000
00912>              fname : SWMF- A. 0002
00913>              remark: SMWF- A Outflow
00914> R0002: C00121- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00915>          ADD HYD         1. 0 02: SSAOUT         364. 27        2. 204 No_date   29: 07   12. 63   n/ a      . 000
00916>                      +   1. 0 02: SWMF- A          66. 75          . 126 No_date   32: 26   32. 66   n/ a      . 000
00917>                      +   1. 0 02: SWMFOV           . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00918>                      SUM=  1. 0 01: PT4ST5       431. 02        2. 323 No_date   29: 07   15. 73   n/ a      . 000
00919> R0002: C00122- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00920>          CONTI NUOUS STANDHYD    1. 0 01: C6             1. 87          . 196 No_date   28: 34   35. 75   . 755    . 000
00921>          [ XI MP=. 68: TI MP=. 85]
00922>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00923>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00924>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI = 193. : MNI =. 013: SCI =    .0]
00925>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00926> R0002: C00123- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00927>      ROUTE RESERVOI R -> 1. 0 02: C6                 1. 87          . 196 No_date   28: 01   34. 35   n/ a      . 000
00928>                  out <=  1. 0 01: C6- STR           1. 87          . 036 No_date   28: 34   34. 35   n/ a      . 000
00929>              overflow <= 1. 0 03: C6- OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00930>          [MaxStoVol=. 3218E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00931> R0002: C00124- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00932>          CONTI NUOUS STANDHYD    1. 0 01: C7             1. 62          . 171 No_date   28: 01   34. 35   . 755    . 000
00933>          [ XI MP=. 68: TI MP=. 85]
00934>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00935>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00936>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI =  180. : MNI =. 013: SCI =    .0]
00937>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00938> R0002: C00125- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00939>      ROUTE RESERVOI R -> 1. 0 02: C7                 1. 62          . 171 No_date   28: 01   34. 35   n/ a      . 000
00940>                  out <=  1. 0 01: C7- STR           1. 62          . 031 No_date   28: 34   34. 35   n/ a      . 000
00941>              overflow <= 1. 0 03: C7- OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00942>          [MaxStoVol=. 2774E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00943> R0002: C00126- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00944>          CONTI NUOUS STANDHYD    1. 0 01: ST- 6          . 41          . 031 No_date   28: 00   25. 32   . 556    . 000
00945>          [ XI MP=. 46: TI MP=. 57]
00946>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00947>          [ Pervi ous     area: IAp= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    .0]
00948>          [ Impervi ous   area: IAi mp= 1. 57: SLPI = . 50: LGI =  91. : MNI =. 013: SCI =    .0]
00949>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00950> R0002: C00127- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00951>      ROUTE RESERVOI R -> 1. 0 02: ST- 6              . 41          . 031 No_date   28: 00   25. 32   n/ a      . 000
00952>                  out <=  1. 0 01: ST6STR            . 41          . 028 No_date   28: 03   25. 32   n/ a      . 000
00953>              overflow <= 1. 0 03: ST6OVF             . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00954>          [MaxStoVol=. 7725E- 03   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00955> R0002: C00128- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00956>          ADD HYD         1. 0 02: PT2ST5         431. 02        2. 323 No_date   29: 07   15. 73   n/ a      . 000
00957>                      +   1. 0 02: C6- STR          1. 87          . 036 No_date   28: 34   34. 35   n/ a      . 000
00958>                      +   1. 0 02: C6- OVF          . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00959>                      +   1. 0 02: C7- STR          1. 62          . 031 No_date   28: 34   34. 35   n/ a      . 000
00960>                      +   1. 0 02: C7- OVF           . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00961>                      +   1. 0 02: ST6STR            . 41          . 028 No_date   28: 03   25. 32   n/ a      . 000
00962>                      +   1. 0 02: ST6OVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00963>                      SUM=  1. 0 01: PT5ST6       434. 92        2. 379 No_date   29: 06   15. 89   n/ a      . 000
00964> R0002: C00129- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00965>      ROUTE CHANNEL   -> 1. 0 02: PT5ST6          434. 92        2. 379 No_date   29: 06   15. 89   n/ a      . 000
00966>      [ RDT=  1. 00]  out <-  1. 0 01: DRAI N4    434. 92        2. 319 No_date   29: 17   15. 89   n/ a      . 000
00967>          [ L/ S/ n=   324. / . 100/ . 043]
00968>          [ Vmax=   . 532: Dmax=   1. 041]
00969> R0002: C00130- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00970>          CONTI NUOUS NASHYD      1. 0 01: D4             1. 73          . 030 No_date   28: 36   18. 93   . 416    . 000
00971>          [ CN=  88. 0:  N=  3. 00:  Tp=   . 60]
00972>          [ IaREC=  4. 00:  SMN=  14. 94:  SMX=  99. 61:  SK=  . 010]
00973>          [ InterEvent Time=   12. 00]
00974> R0002: C00131- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00975>          CONTI NUOUS STANDHYD    1. 0 01: Area- B        24. 04        2. 028 No_date   28: 04   31. 71   . 697    . 000
00976>          [ XI MP=. 62: TI MP=. 77]
00977>          [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
00978>          [ Pervi ous     area: IAp= 4. 67: SLPP=1. 40: LGP=  50. : MNP=. 250: SCP=    .0]
00979>          [ Impervi ous   area: IAi mp= 1. 57: SLPI =1. 40: LGI = 693. : MNI =. 013: SCI =    .0]
00980>          [IaREGi mp=    4. 00: IaRECper=     4. 00]
00981> R0002: C00132- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00982>      ROUTE RESERVOI R -> 1. 0 02: Area- B            24. 04        2. 028 No_date   28: 04   31. 71   n/ a      . 000
00983>                  out <=  1. 0 01: SWMBOF            24. 04          . 169 No_date   29: 09   31. 71   n/ a      . 000
00984>              overflow <= 1. 0 03: SWMBOVF            . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00985>          [MaxStoVol=. 4926E+00   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
00986> R0002: C00133- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00987>          ADD HYD         1. 0 02: DRAI N4        434. 92        2. 319 No_date   29: 17   15. 89   n/ a      . 000
00988>                      +   1. 0 02: D4             1. 73          . 030 No_date   28: 36   18. 93   n/ a      . 000
00989>                      +   1. 0 02: SWMF- B        24. 04          . 169 No_date   29: 09   31. 71   n/ a      . 000
00990>                      +   1. 0 02: SWMBOVF          . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
00991>                      SUM=  1. 0 01: D4- EX       460. 69        2. 507 No_date   29: 17   16. 73   n/ a      . 000
00992> R0002: C00134- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00993>      ROUTE CHANNEL   -> 1. 0 02: D4- EX           460. 69        2. 507 No_date   29: 17   16. 73   n/ a      . 000
00994>      [ RDT=  1. 00]  out <-  1. 0 01: DRAI N5    460. 69        2. 448 No_date   29: 30   16. 73   n/ a      . 000
00995>          [ L/ S/ n=   413. / . 160/ . 033]
00996>          [ Vmax=   . 501: Dmax=   . 708]
00997> R0002: C00135- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
00998>          CONTI NUOUS NASHYD      1. 0 01: D5             1. 90          . 026 No_date   28: 43   17. 40   . 382    . 000
00999>          [ CN=  86. 0:  N=  3. 00:  Tp=   . 69]
01000>          [ IaREC=  4. 00:  SMN=  17. 43:  SMX=  116. 21:  SK=  . 010]
01001>          [ InterEvent Time=   12. 00]
01002> R0002: C00136- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
01003>          CONTI NUOUS NASHYD      1. 0 01: O- 13SDF       9. 74          . 182 No_date   28: 22   16. 95   . 372    . 000
01004>          [ CN=  81. 0:  N=  3. 00:  Tp=   . 43]
01005>          [ IaREC=  4. 00:  SMN=  25. 21:  SMX=  168. 09:  SK=  . 010]
01006>          [ InterEvent Time=   12. 00]
01007> R0002: C00137- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
01008>      ROUTE RESERVOI R -> 1. 0 02: O- 13SDF           9. 74          . 182 No_date   28: 22   16. 95   n/ a      . 000
01009>                  out <=  1. 0 01: SDF               9. 74          . 021 No_date   32: 19   16. 95   n/ a      . 000
01010>              overflow <= 1. 0 03: OVFSDF             . 00          . 000 No_date    0: 00     . 00   n/ a      . 000
01011>          [MaxStoVol=. 8320E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
01012> R0002: C00138- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
01013>          ADD HYD         1. 0 02: DRAI N5        460. 69        2. 448 No_date   29: 30   16. 73   n/ a      . 000
01014>                      +   1. 0 02: D5             1. 90          . 026 No_date   28: 43   17. 40   n/ a      . 000
01015>                      +   1. 0 02: SDF              9. 74          . 021 No_date   32: 19   16. 95   n/ a      . 000
01016>                      SUM=  1. 0 01: PT6MC        472. 33        2. 484 No_date   29: 30   16. 73   n/ a      . 000
01017> R0002: C00139- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
01018>          CONTI NUOUS NASHYD      1. 0 01: O- 15         10. 67          . 230 No_date   28: 14   15. 77   . 347    . 000
01019>          [ CN=  82. 0:  N=  3. 00:  Tp=   . 30]
01020>          [ IaREC=  4. 00:  SMN=  23. 09:  SMX=  153. 94:  SK=  . 010]
01021>          [ InterEvent Time=   12. 00]
01022> R0002: C00140- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
01023>          ADD HYD         1. 0 02: PT6MC          472. 33        2. 484 No_date   29: 30   16. 73   n/ a      . 000
01024>                      +   1. 0 02: O- 15           10. 67          . 230 No_date   28: 14   15. 77   n/ a      . 000
01025>                      SUM=  1. 0 01: MC           483. 00        2. 528 No_date   29: 29   16. 71   n/ a      . 000
01026> R0002: C00141- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
01027>      ROUTE CHANNEL   -> 1. 0 02: MC              483. 00        2. 528 No_date   29: 29   16. 71   n/ a      . 000
01028>      [ RDT=  1. 00]  out <-  1. 0 01: O- 14Ch    483. 00        2. 419 No_date   29: 44   16. 71   n/ a      . 000
01029>          [ L/ S/ n=   845. / . 100/ . 033]
01030>          [ Vmax=   . 756: Dmax=   1. 160]
01031> R0002: C00142- ---------- DTmi n: I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mn- - - -
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01123>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01124>       [InterEvent Time= 12.00]
01125> R0002: C00155-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01126>     ADD HYD              1.0 02: FOSTER-OUT    325.44     3.894 No_date   29:12   28.56  n/a      .000
01127>                    +     1.0 02: S-1-FO-D2       4.94      .040 No_date   29:12   14.83  n/a      .000
01128>                SUM=      1.0 01: 980           330.38     3.933 No_date   29:12   28.36  n/a      .000
01129> R0002: C00156-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01130>     SAVE HYD             1.0 01: 980           330.38     3.933 No_date   29:12   28.36  n/a      .000
01131>       fname : 980.0002
01132>       remark: Total Flows at Station 980 on Foster Drain
01133> #
01134> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
01135> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
01136> #
01137> R0002: C00157-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01138>     ROUTE CHANNEL    ->     1.0 02: 980           330.38     3.933 No_date   29:12   28.36  n/a      .000
01139>     [RDT= 1.00] out <-      1.0 01: 980-out       330.38     3.804 No_date   29:25   28.36  n/a      .000
01140>       [LJ S/ s= 460./ .043/ .035]
01141>       [Vmx= .545: Dmx= 1.094]
01142> R0002: C00158-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01143>     CONTINUOUS NASHYD    1.0 01: S-1-FO DI       5.11      .041 No_date   29:12   14.83  .326     .000
01144>       [CN= 77.0: N= 3.00: Tp= 1.10]
01145>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01146>       [InterEvent Time= 12.00]
01147> R0002: C00159-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01148>     ADD HYD              1.0 02: 980-out       330.38     3.804 No_date   29:25   28.36  n/a      .000
01149>                    +     1.0 02: S-1-FO DI       5.11      .041 No_date   29:12   14.83  n/a      .000
01150>                SUM=      1.0 01: 520           335.49     3.844 No_date   29:25   28.15  n/a      .000
01151> R0002: C00160-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01152>     SAVE HYD             1.0 01: 520           335.49     3.844 No_date   29:25   28.15  n/a      .000
01153>       fname : 520.0002
01154>       remark: Total Flows at Sation 520 on Foster Drain
01155> # Hydrograph from Node Foster (Foster Drain) to Node at station 6016 (Jock River)
01156> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
01157> #
01158> R0002: C00161-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01159>     ROUTE CHANNEL    ->     1.0 02: 520           335.49     3.844 No_date   29:25   28.15  n/a      .000
01160>     [RDT= 1.00] out <-      1.0 01: 520-out       335.49     3.807 No_date   29:32   28.15  n/a      .000
01161>       [LJ S/ s= 860./ .587/ .035]
01162>       [Vmx= 1.199: Dmx= .521]
01163> R0002: C00162-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01164>     CONTINUOUS NASHYD    1.0 01: S-1-FO F-D      14.96      .128 No_date   29:05   14.83  .326     .000
01165>       [CN= 77.0: N= 3.00: Tp= 1.01]
01166>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01167>       [InterEvent Time= 12.00]
01168> R0002: C00163-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01169>     CONTINUOUS STANDHYD   1.0 01: S-1-D8          5.27      .498 No_date   28:00   32.20  .707     .000
01170>       [XI M= 65: TI M= 65]
01171>       [LOSS= 2 : CN= 75.0]
01172>       [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40. : MNP=.250: SCP=   .0]
01173>       [Impervious    area: IAimp= 1.57: SLPI= .75: LGI= 187. : MNI=.013: SCI=   .0]
01174>       [IaREC mp=  4.00: IaRECper=  4.00]
01175>       [SM N= 33.81: SMXG=225.43: SK= .010]
01176> R0002: C00164-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01177>     CONTINUOUS NASHYD    1.0 01: S-1-A           7.54      .912 No_date   28:37   14.83  .326     .000
01178>       [CN= 77.0: N= 3.00: Tp=  .62]
01179>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01180>       [InterEvent Time= 12.00]
01181> R0002: C00165-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01182>     CONTINUOUS NASHYD    1.0 01: W-CLAR_UND     35.65      .286 No_date   29:12   14.83  .326     .000
01183>       [CN= 77.0: N= 3.00: Tp= 1.10]
01184>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01185>       [InterEvent Time= 12.00]
01186> R0002: C00166-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01187>     ADD HYD              1.0 02: N_FO        53577.82    47.379 No_date   34:58   12.80  n/a      .000
01188>                    +     1.0 02: S-1-FO-out      335.49     3.807 No_date   29:32   28.15  n/a      .000
01189>                    +     1.0 02: MS_P10           73.29     1.033 No_date   28:50   31.34  n/a      .000
01190>                    +     1.0 02: P10-OVF           .00      .000 No_date   0:00     .00   n/a      .000
01191>                    +     1.0 02: W-CLAR_UND      35.65      .286 No_date   29:12   14.83  n/a      .000
01192>                    +     1.0 02: S-1-FO F-D      14.96      .128 No_date   29:05   14.83  n/a      .000
01193>                    +     1.0 02: S-1-D8           5.27      .498 No_date   28:00   32.20  n/a      .000
01194>                    +     1.0 02: S-1-A           75.88      .912 No_date   28:37   14.83  n/a      .000
01195>                SUM=      1.0 01: SN_FO       54118.36    48.998 No_date   34:32   12.93  n/a      .000
01196> R0002: C00167-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01197>     SAVE HYD             1.0 01: SN_FO       54118.36    48.998 No_date   34:32   12.93  n/a      .000
01198>       fname : SN_FO.0002
01199>       remark: Total Flows at Foster Drain
01200> # Hydrograph from Node Foster routed to Node at Cedarview Road
01201> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
01202> #
01203> R0002: C00168-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01204>     ROUTE CHANNEL    ->     1.0 02: SN_FO       54118.36    48.998 No_date   34:32   12.93  n/a      .000
01205> *   [RDT= 1.00] out <-      1.0 01: N_CE        54118.36    48.989 No_date   34:40   12.93  n/a      .000
01206>       [LJ S/ s= 159./ .082/ .035]
01207>       [Vmx= 1.113: Dmx= 2.623]
01208> ********************************************************************************
01209> #     Catchment S-1
01210> #     - To Jock River (north and south of Jock)
01211> #     - Primarily agricultural fields; portion of sand quarry
01212> ********************************************************************************
01213> R0002: C00169-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01214>     CONTINUOUS NASHYD    1.0 01: S-1-B          55.36      .825 No_date   28:24   14.83  .326     .000
01215>       [CN= 77.0: N= 3.00: Tp=  .45]
01216>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01217>       [InterEvent Time= 12.00]
01218> #     -  JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B. Change their TP values based on the new areas
01219> #     -  JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and
01220> #     -  JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore.
01221> R0002: C00170-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01222>     CONTINUOUS NASHYD    1.0 01: S-1-DI         21.67      .178 No_date   29:10   14.83  .326     .000
01223>       [CN= 77.0: N= 3.00: Tp= 1.07]
01224>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01225>       [InterEvent Time= 12.00]
01226> R0002: C00171-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01227>     CONTINUOUS NASHYD    1.0 01: S-1-D4          3.28      .026 No_date   29:12   14.83  .326     .000
01228>       [CN= 77.0: N= 3.00: Tp= 1.10]
01229>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01230>       [InterEvent Time= 12.00]
01231> R0002: C00172-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01232>     CONTINUOUS NASHYD    1.0 01: S-1-D5         12.84      .103 No_date   29:12   14.83  .326     .000
01233>       [CN= 77.0: N= 3.00: Tp= 1.10]
01234>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01235>       [InterEvent Time= 12.00]
01236> R0002: C00173-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01237>     CONTINUOUS NASHYD    1.0 01: S-1-D6          1.75      .014 No_date   29:12   14.83  .326     .000
01238>       [CN= 77.0: N= 3.00: Tp= 1.10]
01239>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01240>       [InterEvent Time= 12.00]
01241> R0002: C00174-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01242>     CONTINUOUS NASHYD    1.0 01: S-1-D7          2.03      .016 No_date   29:12   14.83  .326     .000
01243>       [CN= 77.0: N= 3.00: Tp= 1.10]
01244>       [IaREC= 4.00: SM N= 31.15: SMAX=207.66: SK= .010]
01245>       [InterEvent Time= 12.00]
01246> #     Catchment W-CLAR
01247> #     - To West Clarke Drain (south of the Jock)
01248> #     - Subdivision with 43% imp. as per Barrhaven South MSS
01249> #     - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)-11
01250> #     - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL.
01251> ********************************************************************************
01252> R0002: C00175-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01253>     CONTINUOUS STANDHYD   1.0 01: W_CLAR_MI        1.77      .141 No_date   28:00   27.78  .610     .000
01254>       [XI M= 46: TI M= 59]
01255>       [LOSS= 2 : CN= 77.0]
01256>       [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
01257>       [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 109. : MNI=.013: SCI=   .0]
01258>       [IaREC mp=  4.00: IaRECper=  4.00]
01259>       [SM N= 31.15: SMXG=207.66: SK= .010]
01260> # 5-Year + 12% Capture
01261> R0002: C00176-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01262>     ROUTE RESERVOIR  ->     1.0 02: W_CLAR_MI       1.77      .141 No_date   28:00   27.78  n/a      .000
01263>                      out <=  1.0 01: W_CLAR_Min      1.77      .141 No_date   28:00   27.78  n/a      .000
01264>                      overflow <= 1.0 03: W_CLAR_MJ    .00      .000 No_date   0:00     .00   n/a      .000
01265>       [MxStoUsed= 6.6675E-04  m3, TotOrVol= 0.0000E+00  m3, N-Or f=    0, TotDurOrf=    0. hrs]
01266> R0002: C00177-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01267>     CONTINUOUS STANDHYD   1.0 01: W_CLAR_ALL     119.40     7.746 No_date   28:06   31.34  .689     .000
01268>       [XI M= 60: TI M= 65]
01269>       [LOSS= 2 : CN= 77.0]
01270>       [Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=   .0]
01271>       [Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 892. : MNI=.013: SCI=   .0]
01272>       [IaREC mp=  4.00: IaRECper=  4.00]
01273>       [SM N= 31.15: SMXG=207.66: SK= .010]
01274> R0002: C00178-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01275>     ADD HYD              1.0 02: W_CLAR_ALL     119.40     7.746 No_date   28:06   31.34  n/a      .000
01276>                    +     1.0 02: W_CLAR_MJ        .00      .000 No_date   0:00     .00   n/a      .000
01277>                SUM=      1.0 01: W_CLAR         119.40     7.746 No_date   28:06   31.34  n/a      .000
01278> R0002: C00179-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01279>     SAVE HYD             1.0 01: W_CLAR         119.40     7.746 No_date   28:06   31.34  n/a      .000
01280>       fname : W_CLAR.0002
01281>       remark: Total Flows to West Clarke
01282> ********************************************************************************
01283> #     West Clarke Pond 2
01284> #     - Rating curve obtained from Barrhaven South MSS modeling
01285> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
01286> ********************************************************************************
01287> R0002: C00180-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01288>     ROUTE RESERVOIR  ->     1.0 02: W_CLAR         119.40     7.746 No_date   28:06   31.34  n/a      .000
01289>                      out <=  1.0 01: MS_P2          119.40      .816 No_date   29:25   31.34  n/a      .000
01290>                      overflow <= 1.0 03: P2-OVF        .00      .000 No_date   0:00     .00   n/a      .000
01291>       [MxStoUsed= 2.0966E+01  m3, TotOrVol= 0.0000E+00  m3, N-Or f=    0, TotDurOrf=    0. hrs]
01292> ********************************************************************************
01293> R0002: C00181-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01294>     ADD HYD              1.0 02: N_CE        54118.36    48.989 No_date   34:40   12.93  n/a      .000
01295>                    +     1.0 02: S-1-D4           3.28      .026 No_date   29:12   14.83  n/a      .000
01296>                    +     1.0 02: S-1-D5          12.84      .103 No_date   29:12   14.83  n/a      .000
01297>                    +     1.0 02: MS_P2          119.40      .816 No_date   29:25   31.34  n/a      .000
01298>                    +     1.0 02: P2-OVF            .00      .000 No_date   0:00     .00   n/a      .000
01299>                SUM=      1.0 01: SN_CE       54253.88    49.508 No_date   34:35   12.97  n/a      .000
01300> R0002: C00182-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01301>     SAVE HYD             1.0 01: SN_CE       54253.88    49.508 No_date   34:35   12.97  n/a      .000
01302>       fname : SN_CE.0002
01303>       remark: Total Flows before Station 5737 on Jock River
01304> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
01305> # JFSA 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-1
01306> # JFSA 2021-03-02  change the slope to 0.1% instead of 0.0175 to stabilize the model
01307> R0002: C00183-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01308>     ROUTE CHANNEL    ->     1.0 02: SN_CE       54253.88    49.508 No_date   34:35   12.97  n/a      .000
01309> *   [RDT= 1.00] out <-      1.0 01: 5737        54253.88    48.656 No_date   37:03   12.97  n/a      .000
01310>       [LJ S/ s=  270./ .018/ .035]
01311>       [Vmx= .610: Dmx= 3.450]
01312> R0002: C00184-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01313>     ADD HYD              1.0 02: 5737        54253.88    48.656 No_date   37:03   12.97  n/a      .000
01314>                    +     1.0 02: S-1-DI          21.67      .178 No_date   29:10   14.83  n/a      .000
01315>                    +     1.0 02: S-1-D6           1.75      .014 No_date   29:12   14.83  n/a      .000
01316>                    +     1.0 02: S-1-D7           2.03      .016 No_date   29:12   14.83  n/a      .000
01317>                SUM=      1.0 01: 5002        54279.33    48.689 No_date   37:02   12.97  n/a      .000
01318> R0002: C00185-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01319>     SAVE HYD             1.0 01: 5002        54279.33    48.689 No_date   37:02   12.97  n/a      .000
01320>       fname : 5002.0002
01321>       remark: Total Flows before Station 5002 on Jock River
01322> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
01323> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
01324> # JFSA 2021-02-19 Change line roughness from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable
01325> # JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
01326> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
01327> R0002: C00186-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01328>     ROUTE CHANNEL    ->     1.0 02: 5002        54279.33    48.689 No_date   37:02   12.97  n/a      .000
01329>     [RDT= 1.00] out <-      1.0 01: N_WCa       54279.33    48.725 No_date   36:35   12.97  n/a      .000
01330>       [LJ S/ s=  245./ .095/ .035]
01331>       [Vmx= .961: Dmx= 2.011]
01332> R0002: C00187-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01333>     ROUTE CHANNEL    ->     1.0 02: N_WCa       54279.33    48.725 No_date   36:35   12.97  n/a      .000
01334>     [RDT= 1.00] out <-      1.0 01: N_WCb       54279.33    48.698 No_date   36:50   12.97  n/a      .000
01335>       [LJ S/ s=  245./ .095/ .035]
01336>       [Vmx= .961: Dmx= 2.011]
01337> R0002: C00188-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01338>     ROUTE CHANNEL    ->     1.0 02: N_WCb       54279.33    48.698 No_date   36:50   12.97  n/a      .000
01339>     [RDT= 1.00] out <-      1.0 01: N_WC        54279.33    48.705 No_date   36:46   12.97  n/a      .000
01340>       [LJ S/ s=  245./ .095/ .035]
01341>       [Vmx= .961: Dmx= 2.011]
01342> ********************************************************************************
01343> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
01344> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
01345> #
01346> R0002: C00189-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01347>     ROUTE CHANNEL    ->     1.0 02: N_WC        54279.33    48.745 No_date   36:36   12.97  n/a      .000
01348>     [RDT= 1.00] out <-      1.0 01: N_KB        54279.33    48.700 No_date   36:46   12.97  n/a      .000
01349>       [LJ S/ s= 1020./ .050/ .035]
01350>       [Vmx= .848: Dmx= 2.425]
01351> ********************************************************************************
01352> #     Catchment KEN_BU
01353> #     - To Kennedy-Burnett SWM Facility
01354> #     - Outlets to Fraser-Clarke drain (north of the Jock)
01355> #     - Medium density residential subdivision
01356> ********************************************************************************
01357> ********************************************************************************
01358> #   Existing Kennedy-Burnett SWM Facility
01359> #     - Rating curve obtained from URTRIBP
01360> #     - Tributary Drainage Area to Pond = 160 ha
01361> ********************************************************************************
01362> R0002: C00190-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01363>     CONTINUOUS STANDHYD   1.0 01: KB-01A         40.82     1.627 No_date   28:18   14.35  .315     .000
01364>       [XI M= .10: TI M= .40]
01365>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01366>       [Pervious      area: IAper= 4. 67: SLPP=  .50: LGP=  40. : MNP=.250: SCP=   .0]
01367>       [Impervious    area: IAimp= .79: SLPI= .50: LGI= 522. : MNI=.013: SCI=   .0]
01368>       [IaREC mp=  4.00: IaRECper=  4.00]
01369> R0002: C00191-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01370>     COMPUTE DUALHYD      1.0 01: KB-01A         40.82     1.627 No_date   28:18   14.35  n/a      .000
01371>       Major System   /     1.0 02: KB-01A-MI       .00      .000 No_date   0:00     .00   n/a      .000
01372>       Minor System   \     1.0 03: KB-01A-MN     40.82     1.627 No_date   28:18   14.35  n/a      .000
01373>       [MJSysSto=.0000E+00,  Tot Or f Vol =.0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
01374> R0002: C00192-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01375>     ADD HYD              1.0 03: KB-01A-MI        .00      .000 No_date   0:00     .00   n/a      .000
01376>                    +     1.0 02: KB-01A-MN      40.82     1.627 No_date   28:18   14.35  n/a      .000
01377>                SUM=      1.0 01: KB-01A-S       40.82     1.627 No_date   28:18   14.35  n/a      .000
01378> R0002: C00193-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01379>     CONTINUOUS STANDHYD   1.0 01: KB-01B         31.10     1.062 No_date   28:08   16.28  .358     .000
01380>       [XI M= .19: TI M= .38]
01381>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01382>       [Pervious      area: IAper= 4. 67: SLPP=  .42: LGP=  40. : MNP=.250: SCP=   .0]
01383>       [Impervious    area: IAimp= .79: SLPI= .42: LGI= 455. : MNI=.013: SCI=   .0]
01384>       [IaREC mp=  4.00: IaRECper=  4.00]
01385> R0002: C00194-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01386>     COMPUTE DUALHYD      1.0 01: KB-01B         31.10     1.062 No_date   28:08   16.28  n/a      .000
01387>       Major System   /     1.0 02: KB-01B-MI       .00      .000 No_date   0:00     .00   n/a      .000
01388>       Minor System   \     1.0 03: KB-01B-MN     31.10     1.062 No_date   28:08   16.28  n/a      .000
01389>       [MJSysSto=.0000E+00,  Tot Or f Vol =.0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
01390> R0002: C00195-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01391>     ADD HYD              1.0 02: KB-01B-MI        .00      .000 No_date   0:00     .00   n/a      .000
01392>                    +     1.0 03: KB-01B-MN      31.10     1.062 No_date   28:08   16.28  n/a      .000
01393>                SUM=      1.0 01: KB-01B-S       31.10     1.062 No_date   28:08   16.28  n/a      .000
01394> R0002: C00196-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01395>     CONTINUOUS STANDHYD   1.0 01: KB-01C         13.78      .776 No_date   28:06   17.09  .375     .000
01396>       [XI M= .20: TI M= .41]
01397>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01398>       [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=.250: SCP=   .0]
01399>       [Impervious    area: IAimp= .79: SLPI= .50: LGI= 303. : MNI=.013: SCI=   .0]
01400>       [IaREC mp=  4.00: IaRECper=  4.00]
01401> R0002: C00197-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01402>     COMPUTE DUALHYD      1.0 01: KB-01C         13.78      .776 No_date   28:06   17.09  n/a      .000
01403>       Major System   /     1.0 02: KB-01C-MI       .00      .000 No_date   0:00     .00   n/a      .000
01404>       Minor System   \     1.0 03: KB-01C-MN     13.78      .776 No_date   28:06   17.09  n/a      .000
01405>       [MJSysSto=.0000E+00,  Tot Or f Vol =.0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
01406> R0002: C00198-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01407>     ADD HYD              1.0 02: KB-01C-MI        .00      .000 No_date   0:00     .00   n/a      .000
01408>                    +     1.0 02: KB-01C-MN      13.78      .776 No_date   28:06   17.09  n/a      .000
01409>                SUM=      1.0 01: KB-01C-S       13.78      .776 No_date   28:06   17.09  n/a      .000
01410> R0002: C00199-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01411>     CONTINUOUS STANDHYD   1.0 01: KB-03          84.78     3.788 No_date   28:12   16.73  .368     .000
01412>       [XI M= .20: TI M= .39]
01413>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01414>       [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=.250: SCP=   .0]
01415>       [Impervious    area: IAimp= .79: SLPI= .63: LGI= 752. : MNI=.013: SCI=   .0]
01416>       [IaREC mp=  4.00: IaRECper=  4.00]
01417> R0002: C00200-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01418>     COMPUTE DUALHYD      1.0 01: KB-03          84.78     3.788 No_date   28:12   16.73  n/a      .000
01419>       Major System   /     1.0 02: KB-03-MI        .00      .000 No_date   0:00     .00   n/a      .000
01420>       Minor System   \     1.0 03: KB-03-MN      84.78     3.788 No_date   28:12   16.73  n/a      .000
01421>       [MJSysSto=.0000E+00,  Tot Or f Vol =.0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
01422> R0002: C00201-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01423>     ADD HYD              1.0 02: KB-03-MI         .00      .000 No_date   0:00     .00   n/a      .000
01424>                    +     1.0 03: KB-03-MN       84.78     3.788 No_date   28:12   16.73  n/a      .000
01425>                SUM=      1.0 01: KB-03-S        84.78     3.788 No_date   28:12   16.73  n/a      .000
01426> R0002: C00202-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01427>     CONTINUOUS STANDHYD   1.0 01: KB-04           6.95      .792 No_date   28:01   38.80  .853     .000
01428>       [XI M= .85: TI M= .85]
01429>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01430>       [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=.250: SCP=   .0]
01431>       [Impervious    area: IAimp= .94: SLPI= .50: LGI= 215. : MNI=.013: SCI=   .0]
01432>       [IaREC mp=  4.00: IaRECper=  4.00]
01433> R0002: C00203-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01434>     COMPUTE DUALHYD      1.0 01: KB-04           6.95      .792 No_date   28:01   38.80  n/a      .000
01435>       Major System   /     1.0 02: KB-04-MI        .00      .000 No_date   0:00     .00   n/a      .000
01436>       Minor System   \     1.0 03: KB-04-MN        6.95      .503 No_date   27:53   39.02  n/a      .000
01437>       [MJSysSto=.1543E+03,  Tot Or f Vol =.0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
01438> R0002: C00204-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01439>     ADD HYD              1.0 02: KB-04-MI         .00      .000 No_date   0:00     .00   n/a      .000
01440>                    +     1.0 03: KB-04-MN        6.95      .503 No_date   27:53   39.02  n/a      .000
01441>                SUM=      1.0 01: KB-04-S         6.95      .503 No_date   27:53   39.02  n/a      .000
01442> R0002: C00205-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01443>     CONTINUOUS STANDHYD   1.0 01: KB-05           5.19      .653 No_date   28:01   41.29  .907     .000
01444>       [XI M= .93: TI M= .93]
01445>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01446>       [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=.250: SCP=   .0]
01447>       [Impervious    area: IAimp= 1. 57: SLPI= .50: LGI= 186. : MNI=.013: SCI=   .0]
01448>       [IaREC mp=  4.00: IaRECper=  4.00]
01449> R0002: C00206-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01450>     CONTINUOUS STANDHYD   1.0 01: KB-06          12.93     1.683 No_date   28:00   39.68  .872     .000
01451>       [XI M= .87: TI M= .87]
01452>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01453>       [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=.250: SCP=   .0]
01454>       [Impervious    area: IAimp= .94: SLPI=4. 75: LGI= 294. : MNI=.013: SCI=   .0]
01455>       [IaREC mp=  4.00: IaRECper=  4.00]
01456> R0002: C00207-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01457>     COMPUTE DUALHYD      1.0 01: KB-06          12.93     1.683 No_date   28:00   39.68  n/a      .000
01458>       Major System   /     1.0 02: KB-06-MI        .00      .000 No_date   0:00     .00   n/a      .000
01459>       Minor System   \     1.0 03: KB-06-MN      12.93     1.683 No_date   28:00   39.68  n/a      .000
01460>       [MJSysSto=.0000E+00,  Tot Or f Vol =.0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
01461> R0002: C00208-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01462>     ADD HYD              1.0 02: KB-06-MI         .00      .000 No_date   0:00     .00   n/a      .000
01463>                    +     1.0 03: KB-06-MN       12.93     1.683 No_date   28:00   39.68  n/a      .000
01464>                SUM=      1.0 01: KB-06-S        12.93     1.683 No_date   28:00   39.68  n/a      .000
01465> R0002: C00209-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01466>     CONTINUOUS STANDHYD   1.0 01: KB-11           4.03      .425 No_date   28:00   32.17  .707     .000
01467>       [XI M= .68: TI M= .68]
01468>       [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
01469>       [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=.250: SCP=   .0]
01470>       [Impervious    area: IAimp= .79: SLPI=2. 00: LGI= 164. : MNI=.013: SCI=   .0]
01471>       [IaREC mp=  4.00: IaRECper=  4.00]
01472> R0002: C00210-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01473>     COMPUTE DUALHYD      1.0 01: KB-11           4.03      .425 No_date   28:00   32.17  n/a      .000
01474>       Major System   /     1.0 02: KB-11-MI        .00      .000 No_date   0:00     .00   n/a      .000
01475>       Minor System   \     1.0 03: KB-11-MN        4.03      .425 No_date   28:00   32.17  n/a      .000
01476>       [MJSysSto=.0000E+00,  Tot Or f Vol =.0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
01477> R0002: C00211-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01478>     ADD HYD              1.0
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01497>                    +     1.0  02: KB-01B-S      31.10     1.062 No_date   28:08   16.28  n/a     .000
01498>                    +     1.0  02: KB-01C-S      13.78      .776 No_date   28:06   17.09  n/a     .000
01499>                    +     1.0  02: KB-03-S       84.78     3.788 No_date   28:12   16.73  n/a     .000
01500>                    +     1.0  02: KB-04-S        6.95      .503 No_date   27:53   39.02  n/a     .000
01501>                    +     1.0  02: KB-05           5.19      .653 No_date   28:01   41.29  n/a     .000
01502>                    +     1.0  02: KB-06-S       12.93     1.683 No_date   28:00   39.68  n/a     .000
01503>                    +     1.0  02: KB-11-S        4.03      .425 No_date   28:00   32.17  n/a     .000
01504>                    +     1.0  02: KB-15           2.15      .241 No_date   28:00   37.11  n/a     .000
01505>                    +     1.0  02: SI              4.99      .689 No_date   28:00   41.29  n/a     .000
01506>                  SUM=    1.0  01: KB-P1         206.72    9.491 No_date   28:02   20.13  n/a     .000
01507> R0002: C00215-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01508>       ROUTE RESERVOIR ->    1.0  02: KB-P1         206.72    9.491 No_date   28:02   20.13  n/a     .000
01509>                    out <=    1.0  01: KB-P1R       206.72    8.405 No_date   28:13   20.13  n/a     .000
01510>                 overflow <=  1.0  03: KB-P1ovf       .00       .000 No_date   0:00     .00  n/a     .000
01511>       [MsStoUsed=.4577E+00  m3,  Tot Or Vol =.0000E+00  m3,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01512> R0002: C00216-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01513>       ADD HYD               1.0  02: KB-P1R        206.72    8.405 No_date   28:13   20.13  n/a     .000
01514>                    +     1.0  03: KB-P1ovf         .00       .000 No_date   0:00     .00  n/a     .000
01515>                  SUM=    1.0  01: KB-Pond1       206.72    8.405 No_date   28:13   20.13  n/a     .000
01516> R0002: C00217-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01517>       SAVE HYD              1.0  01: KB-Pond1       206.72    8.405 No_date   28:13   20.13  n/a     .000
01518>            fname : KB-Pond1.0002
01519>            remark: Total Flows at KB first pond
01520> R0002: C00218-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01521>       CONTINUOUS STANDHYD   1.0  01: KB-07          10.86     1.337 No_date   28:00   39.32  .864    .000
01522>          [ XI M=.86: TI M=.86]
01523>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01524>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01525>          [ Impervious     area: IAmp=  . 79: SLPI=2. 00: LGI= 269. : MNI=. 013: SCI=    .0]
01526>          [ IaREG mp=    4. 00]  IaREC per=    4. 00]
01527> R0002: C00219-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01528>       COMPUTE DUALHYD       1.0  01: KB-07          10.86     1.337 No_date   28:00   39.32  n/a     .000
01529>          Major System  /          .00       .000 No_date   0:00     .00  n/a     .000
01530>          Minor System  \     1.0  03: KB-07-MN      10.86     1.337 No_date   28:00   39.32  n/a     .000
01531>          [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01532> R0002: C00220-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01533>       ADD HYD               1.0  02: KB-07-MI        .00       .000 No_date   0:00     .00  n/a     .000
01534>                    +     1.0  02: KB-07-MN       10.86     1.337 No_date   28:00   39.32  n/a     .000
01535>                  SUM=    1.0  01: KB-07-S        10.86     1.337 No_date   28:00   39.32  n/a     .000
01536> R0002: C00221-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01537>       CONTINUOUS STANDHYD   1.0  01: KB-08           6.61      .651 No_date   28:00   30.82  .677    .000
01538>          [ XI M=. 64: TI M=. 64]
01539>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01540>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01541>          [ Impervious     area: IAmp=  . 79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=    .0]
01542>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01543> R0002: C00222-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01544>       COMPUTE DUALHYD       1.0  01: KB-08           6.61      .651 No_date   28:00   30.82  n/a     .000
01545>          Major System  /          .00       .000 No_date   0:00     .00  n/a     .000
01546>          Minor System  \     1.0  03: KB-08-MN        6.61      .651 No_date   28:00   30.82  n/a     .000
01547>          [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01548> R0002: C00223-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01549>       ADD HYD               1.0  02: KB-08-MI        .00       .000 No_date   0:00     .00  n/a     .000
01550>                    +     1.0  02: KB-08-MN         6.61      .651 No_date   28:00   30.82  n/a     .000
01551>                  SUM=    1.0  01: KB-08-S          6.61      .651 No_date   28:00   30.82  n/a     .000
01552> R0002: C00224-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01553>       CONTINUOUS STANDHYD   1.0  01: KB-09           2.60      .344 No_date   28:00   38.64  .849    .000
01554>          [ XI M=. 86: TI M=. 86]
01555>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01556>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01557>          [ Impervious     area: IAmp=  1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=    .0]
01558>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01559> R0002: C00225-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01560>       CONTINUOUS STANDHYD   1.0  01: KB-10_1         2.37      .314 No_date   28:00   38.64  .849    .000
01561>          [ XI M=. 86: TI M=. 86]
01562>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01563>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01564>          [ Impervious     area: IAmp=  1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=    .0]
01565>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01566> R0002: C00226-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01567>       CONTINUOUS STANDHYD   1.0  01: KB-10_2         1.14      .153 No_date   28:00   38.64  .849    .000
01568>          [ XI M=. 86: TI M=. 86]
01569>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01570>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01571>          [ Impervious     area: IAmp=  1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=    .0]
01572>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01573> R0002: C00227-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01574>       CONTINUOUS STANDHYD   1.0  01: KB-12           4.86      .581 No_date   28:00   36.37  .799    .000
01575>          [ XI M=. 79: TI M=. 79]
01576>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01577>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01578>          [ Impervious     area: IAmp=  1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=    .0]
01579>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01580> R0002: C00228-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01581>       COMPUTE DUALHYD       1.0  01: KB-12           4.86      .581 No_date   28:00   36.37  n/a     .000
01582>          Major System  /     1.0  02: KB-12-MI        .00       .000 No_date   0:00     .00  n/a     .000
01583>          Minor System  \     1.0  03: KB-12-MN        4.86      .581 No_date   28:00   36.37  n/a     .000
01584>          [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01585> R0002: C00229-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01586>       ADD HYD               1.0  02: KB-12-MI        .00       .000 No_date   0:00     .00  n/a     .000
01587>                    +     1.0  02: KB-12-MN         4.86      .581 No_date   28:00   36.37  n/a     .000
01588>                  SUM=    1.0  01: KB-12-S          4.86      .581 No_date   28:00   36.37  n/a     .000
01589> R0002: C00230-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01590>       CONTINUOUS STANDHYD   1.0  01: KB-13          10.19      .970 No_date   28:00   30.82  .677    .000
01591>          [ XI M=. 64: TI M=. 64]
01592>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01593>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01594>          [ Impervious     area: IAmp=  . 79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=    .0]
01595>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01596> R0002: C00231-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01597>       COMPUTE DUALHYD       1.0  01: KB-13          10.19      .970 No_date   28:00   30.82  n/a     .000
01598>          Major System  /     1.0  02: KB-13-MI        .00       .000 No_date   0:00     .00  n/a     .000
01599>          Minor System  \     1.0  03: KB-13-MN       10.19      .970 No_date   28:00   30.82  n/a     .000
01600>          [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01601> R0002: C00232-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01602>       ADD HYD               1.0  02: KB-13-MI        .00       .000 No_date   0:00     .00  n/a     .000
01603>                    +     1.0  02: KB-13-MN        10.19      .970 No_date   28:00   30.82  n/a     .000
01604>                  SUM=    1.0  01: KB-13-S         10.19      .970 No_date   28:00   30.82  n/a     .000
01605> R0002: C00233-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01606>       CONTINUOUS STANDHYD   1.0  01: KB-14           5.47      .543 No_date   28:00   30.82  .677    .000
01607>          [ XI M=. 64: TI M=. 64]
01608>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01609>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01610>          [ Impervious     area: IAmp=  . 79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=    .0]
01611>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01612> R0002: C00234-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01613>       COMPUTE DUALHYD       1.0  01: KB-14           5.47      .543 No_date   28:00   30.82  n/a     .000
01614>          Major System  /     1.0  02: KB-14-MI        .00       .000 No_date   0:00     .00  n/a     .000
01615>          Minor System  \     1.0  03: KB-14-MN        5.47      .543 No_date   28:00   30.82  n/a     .000
01616>          [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01617> R0002: C00235-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01618>       ADD HYD               1.0  02: KB-14-MI        .00       .000 No_date   0:00     .00  n/a     .000
01619>                    +     1.0  02: KB-14-MN         5.47      .543 No_date   28:00   30.82  n/a     .000
01620>                  SUM=    1.0  01: KB-14-S          5.47      .543 No_date   28:00   30.82  n/a     .000
01621> R0002: C00236-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01622>       CONTINUOUS STANDHYD   1.0  01: KB-16_2         3.42      .337 No_date   28:01   33.97  .746    .000
01623>          [ XI M=. 71: TI M=. 71]
01624>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01625>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01626>          [ Impervious     area: IAmp=  . 16: SLPI=  . 30: LGI= 151. : MNI=. 013: SCI=    .0]
01627>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01628> R0002: C00237-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01629>       ADD HYD               1.0  02: KB-Pond1       206.72    8.405 No_date   28:13   20.13  n/a     .000
01630>                    +     1.0  02: KB-07-S          10.86     1.337 No_date   28:00   39.32  n/a     .000
01631>                    +     1.0  02: KB-08-S           6.61      .651 No_date   28:00   30.82  n/a     .000
01632>                    +     1.0  02: KB-09             2.60      .344 No_date   28:00   38.64  n/a     .000
01633>                    +     1.0  02: KB-10_1           2.37      .314 No_date   28:00   38.64  n/a     .000
01634>                    +     1.0  02: KB-10_2           1.14      .153 No_date   28:00   38.64  n/a     .000
01635>                    +     1.0  02: KB-12-S           4.86      .581 No_date   28:00   36.37  n/a     .000
01636>                    +     1.0  02: KB-13-S          10.19      .970 No_date   28:00   30.82  n/a     .000
01637>                    +     1.0  02: KB-14-S           5.47      .543 No_date   28:00   30.82  n/a     .000
01638>                    +     1.0  02: KB-16_2           3.42      .337 No_date   28:01   33.97  n/a     .000
01639>                  SUM=    1.0  01: KB-P2           254.24   11.772 No_date   28:02   22.82  n/a     .000
01640> R0002: C00238-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01641>       ROUTE RESERVOIR ->    1.0  02: KB-P2         254.24   11.772 No_date   28:02   22.82  n/a     .000
01642>                    out <=    1.0  01: KB-P2R       254.24    9.930 No_date   28:12   22.82  n/a     .000
01643>                 overflow <=  1.0  03: KB-P2ovf       .00       .000 No_date   0:00     .00  n/a     .000
01644>       [MsStoUsed=. 4507E+00  m3,  Tot Or Vol =. 0000E+00  m3,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01645> R0002: C00239-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01646>       ADD HYD               1.0  02: KB-P2R        254.24    9.930 No_date   28:12   22.82  n/a     .000
01647>                    +     1.0  03: KB-P2ovf         .00       .000 No_date   0:00     .00  n/a     .000
01648>                  SUM=    1.0  01: KB-Pond2       254.24    9.930 No_date   28:12   22.82  n/a     .000
01649> R0002: C00240-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01650>       SAVE HYD              1.0  01: KB-Pond2       254.24    9.930 No_date   28:12   22.82  n/a     .000
01651>            fname : KB-Pond2.0002
01652>            remark: Total Flows at KB second pond
01653> R0002: C00241-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01654>       CONTINUOUS STANDHYD   1.0  01: KB-16_1         2.80      .293 No_date   28:01   35.54  .781    .000
01655>          [ XI M=. 75: TI M=. 75]
01656>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01657>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01658>          [ Impervious     area: IAmp=  . 16: SLPI=  . 30: LGI= 137. : MNI=. 013: SCI=    .0]
01659>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01660> R0002: C00242-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01661>       ADD HYD               1.0  02: KB-Pond2       254.24    9.930 No_date   28:12   22.82  n/a     .000
01662>                    +     1.0  02: KB-16_1           2.80      .293 No_date   28:01   35.54  n/a     .000
01663>                  SUM=    1.0  01: KB-P3           257.04   10.049 No_date   28:11   22.96  n/a     .000
01664> R0002: C00243-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01665>       ROUTE RESERVOIR ->    1.0  02: KB-P3         257.04   10.049 No_date   28:11   22.96  n/a     .000
01666>                    out <=    1.0  01: KB-P3R       18.54      .051 No_date   18:09   22.96  n/a     .000
01667>                 overflow <=  1.0  03: KB-P3ovf     238.50    9.997 No_date   28:11   22.96  n/a     .000
01668>       [MsStoUsed=. 2001E-02  m3,  Tot Or Vol =. 5477E+01  m3,  N-Or/=     1,  Tot Dur Or/=     2. hrs]
01669> R0002: C00244-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01670>       ADD HYD               1.0  02: KB-P3R        18.54      .051 No_date   18:09   22.96  n/a     .000
01671>                    +     1.0  03: KB-P3ovf       238.50    9.997 No_date   28:11   22.96  n/a     .000
01672>                  SUM=    1.0  01: KB-Pond3       257.04   10.048 No_date   28:11   22.96  n/a     .000
01673> R0002: C00245-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01674>       SAVE HYD              1.0  01: KB-Pond3       257.04   10.048 No_date   28:11   22.96  n/a     .000
01675>            fname : KB-Pond3.0002
01676>            remark: Total Flows at KB third pond
01677> ********************************************************************************
01678> #     EXISTING / PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility ( 118080),  SWM Modeling Approach,  NOVATECH Report Ju
01679> #     - TO FRASER-CLARKE DRAIN
01680> ********************************************************************************
01681> R0002: C00246-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01682>       CONTINUOUS STANDHYD   1.0  01: FC-01           8.03      .575 No_date   28:01   23.89  .525    .000
01683>          [ XI M=. 47: TI M=. 47]
01684>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01685>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01686>          [ Impervious     area: IAmp=  1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=    .0]
01687>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01688> R0002: C00247-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01689>       COMPUTE DUALHYD       1.0  01: FC-01           8.03      .575 No_date   28:01   23.89  n/a     .000
01690>          Major System  /          .00       .000 No_date   0:00     .00  n/a     .000
01691>          Minor System  \     1.0  03: FC-01-MN        8.03      .575 No_date   28:01   23.89  n/a     .000
01692>          [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01693> R0002: C00248-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01694>       ADD HYD               1.0  02: FC-01-MI        .00       .000 No_date   0:00     .00  n/a     .000
01695>                    +     1.0  02: FC-03-MN         8.03      .575 No_date   28:01   23.89  n/a     .000
01696>                  SUM=    1.0  01: FC-01-S          8.03      .575 No_date   28:01   23.89  n/a     .000
01697> R0002: C00249-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01698>       CONTINUOUS STANDHYD   1.0  01: FC-02          16.05     1.936 No_date   28:01   41.29  .907    .000
01699>          [ XI M=. 93: TI M=. 93]
01700>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01701>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01702>          [ Impervious     area: IAmp=  1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=    .0]
01703>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01704> R0002: C00250-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01705>       COMPUTE DUALHYD       1.0  01: FC-02          16.05     1.936 No_date   28:01   41.29  n/a     .000
01706>          Major System  /     1.0  02: FC-02-MI        .00       .000 No_date   0:00     .00  n/a     .000
01707>          Minor System  \     1.0  03: FC-02-MN       16.05     1.159 No_date   27:52   41.31  n/a     .000
01708>          [ MjSysSto=. 4641E+03,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01709> R0002: C00251-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01710>       ADD HYD               1.0  02: FC-02-MI        .00       .000 No_date   0:00     .00  n/a     .000
01711>                    +     1.0  02: FC-02-MN        16.05     1.159 No_date   27:52   41.31  n/a     .000
01712>                  SUM=    1.0  01: FC-02-S         16.05     1.159 No_date   27:52   41.31  n/a     .000
01713> R0002: C00252-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01714>       CONTINUOUS STANDHYD   1.0  01: FC-03           7.37      .687 No_date   28:01   30.32  .666    .000
01715>          [ XI M=. 64: TI M=. 64]
01716>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01717>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01718>          [ Impervious     area: IAmp=  1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=    .0]
01719>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01720> R0002: C00253-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01721>       COMPUTE DUALHYD       1.0  01: FC-03           7.37      .687 No_date   28:01   30.32  n/a     .000
01722>          Major System  /          .00       .000 No_date   0:00     .00  n/a     .000
01723>          Minor System  \     1.0  03: FC-03-MN        7.37      .358 No_date   27:49   30.49  n/a     .000
01724>          [ MjSysSto=. 2043E+03,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01725> R0002: C00254-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01726>       ADD HYD               1.0  02: FC-03-MI        .00       .000 No_date   0:00     .00  n/a     .000
01727>                    +     1.0  02: FC-03-MN         7.37      .358 No_date   27:49   30.49  n/a     .000
01728>                  SUM=    1.0  01: FC-03-S          7.37      .358 No_date   27:49   30.49  n/a     .000
01729> R0002: C00255-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01730>       CONTINUOUS STANDHYD   1.0  01: FC-04          12.87     1.148 No_date   28:01   30.32  .666    .000
01731>          [ XI M=. 64: TI M=. 64]
01732>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01733>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01734>          [ Impervious     area: IAmp=  1. 57: SLPI=1. 00: LGI= 293. : MNI=. 013: SCI=    .0]
01735>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01736> R0002: C00256-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01737>       COMPUTE DUALHYD       1.0  01: FC-04          12.87     1.148 No_date   28:01   30.32  n/a     .000
01738>          Major System  /          .00       .000 No_date   0:00     .00  n/a     .000
01739>          Minor System  \     1.0  03: FC-04-MN       12.87      .741 No_date   27:53   30.44  n/a     .000
01740>          [ MjSysSto=. 2134E+03,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01741> R0002: C00257-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01742>       ADD HYD               1.0  02: FC-04-MI        .00       .000 No_date   0:00     .00  n/a     .000
01743>                    +     1.0  02: FC-04-MN        12.87      .741 No_date   27:53   30.44  n/a     .000
01744>                  SUM=    1.0  01: FC-04-S         12.87      .741 No_date   27:53   30.44  n/a     .000
01745> ********************************************************************************
01746> #     PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility ( 118080),  SWM Modeling Approach,  NOVATECH Report June,  2020)
01747> #     - TO JOCK RIVER
01748> ********************************************************************************
01749> R0002: C00258-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01750>       CONTINUOUS STANDHYD   1.0  01: JR-01           8.24      .764 No_date   28:01   30.32  .666    .000
01751>          [ XI M=. 64: TI M=. 64]
01752>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01753>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01754>          [ Impervious     area: IAmp=  1. 57: SLPI=1. 00: LGI= 234. : MNI=. 013: SCI=    .0]
01755>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01756> R0002: C00259-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01757>       COMPUTE DUALHYD       1.0  01: JR-01           8.24      .764 No_date   28:01   30.32  n/a     .000
01758>          Major System  /     1.0  02: JR-01-MI        .00       .000 No_date   0:00     .00  n/a     .000
01759>          Minor System  \     1.0  03: JR-01-MN        8.24      .563 No_date   28:13   30.43  n/a     .000
01760>          [ MjSysSto=. 8257E+02,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01761> R0002: C00260-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01762>       ADD HYD               1.0  02: JR-01-MI        .00       .000 No_date   0:00     .00  n/a     .000
01763>                    +     1.0  02: JR-01-MN         8.24      .563 No_date   27:55   30.43  n/a     .000
01764>                  SUM=    1.0  01: JR-01-S          8.24      .563 No_date   27:55   30.43  n/a     .000
01765> R0002: C00261-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01766>       CONTINUOUS STANDHYD   1.0  01: JR-02           1.59      .162 No_date   28:00   30.32  .666    .000
01767>          [ XI M=. 64: TI M=. 64]
01768>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
01769>          [ Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01770>          [ Impervious     area: IAmp=  1. 57: SLPI=1. 00: LGI= 103. : MNI=. 013: SCI=    .0]
01771>          [ IaREG mp=    4. 00: IaREC per=    4. 00]
01772> R0002: C00262-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01773>       COMPUTE DUALHYD       1.0  01: JR-02           1.59      .162 No_date   28:00   30.32  n/a     .000
01774>          Major System  /     1.0  02: JR-02-MI        .00       .000 No_date   0:00     .00  n/a     .000
01775>          Minor System  \     1.0  03: JR-02-MN        1.59      .153 No_date   27:58   30.45  n/a     .000
01776>          [ MjSysSto=. 1236E+01,  Tot Or Vol =. 0000E+00,  N-Or/=     0,  Tot Dur Or/=     0. hrs]
01777> R0002: C00263-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01778>       ADD HYD               1.0  02: JR-02-MI        .00       .000 No_date   0:00     .00  n/a     .000
01779>                    +     1.0  02: JR-02-MN         1.59      .153 No_date   27:58   30.45  n/a     .000
01780>                  SUM=    1.0  01: JR-02-S          1.59      .153 No_date   27:58   30.45  n/a     .000
01781> ********************************************************************************
01782> #     Catchment FRASER
01783> #     - To Fraser-Clarke drain (north of the Jock)
01784> #     - Developed land with assumed 45% imp.
01785> #     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
01786> #     - 2020-12-17 All Fraser is undeveloped (Nashyd)
01787> ********************************************************************************
01788> R0002: C00264-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01789>       CONTINUOUS NASHYD     1.0  01: FRASER-DRN     13.65      .212 No_date   28:22   14.83  .326    .000
01790>          [ CN= 77. 0:  N= 3. 00:  Tp=  .67]
01791>          [ IaREC= 4. 00:  SMN= 31. 15:  SMX=207. 66:  SK=  .010]
01792>          [ InterEventTime=  12. 00]
01793> R0002: C00265-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01794>       CONTINUOUS NASHYD     1.0  01: FRASER-D       21.61      .245 No_date   28:41   14.83  .326    .000
01795>          [ CN= 77. 0:  N= 3. 00:  Tp=  .67]
01796>          [ IaREC= 4. 00:  SMN= 31. 15:  SMX=207. 66:  SK=  .010]
01797>          [ InterEventTime=  12. 00]
01798> R0002: C00266-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01799>       ADD HYD               1.0  02: KB-Pond3       257.04   10.048 No_date   28:11   22.96  n/a     .000
01800>                    +     1.0  02: S-1-B            55.36      .825 No_date   28:24   14.83  n/a     .000
01801>                    +     1.0  02: FRASER-DRN       13.65      .212 No_date   28:22   14.83  n/a     .000
01802>                    +     1.0  02: FRASER-D         21.61      .245 No_date   28:41   14.83  n/a     .000
01803>                    +     1.0  02: N_KB             54279.33  48.700 No_date   36:46   12.97  n/a     .000
01804>                    +     1.0  02: FC-01-S           8.03      .575 No_date   28:01   23.89  n/a     .000
01805>                    +     1.0  02: FC-02-S          16.05     1.159 No_date   27:52   41.31  n/a     .000
01806>                    +     1.0  02: FC-03-S           7.37      .358 No_date   27:49   30.49  n/a     .000
01807>                  SUM=    1.0  01: KB-P3           54658.44  49.005 No_date   36:45   13.03  n/a     .000
01808> R0002: C00267-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
01809>       SAVE HYD              1.0  01: KB-P3          54658.44  49.005 No_date   36:45   13.03  n/a     .000
01810>            fname : 4241.0002
01811>            remark: Total Flows at Ken-Burnett Outlet
01812 # Hydrograph from Node Ken-Burnett to station 3633
01813 # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
01814 #
01815> R0002: C00268-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_
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01871> #     - 2020-11-30 increase imp. based on P598(04)-11
01872> #     - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on P598(04)-11
01873> #     - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL.
01874> #*******************************************************************************
01875> #     - JFSA 2021-01-19 add "TODD_MN1" as part of Clarke("W_CLAR_M") and remove it from Todd
01876> R0002: C00276-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01877>     CONTINUOUS STANDHYD      1.0 01: TODD_MN2          2.10       .179 No_date   28:00   28.91 .635       .000
01878>       [ XI M=. 53: TI M=. 57]
01879>       [ LOSS= 2 : CN= 77.0]
01880>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
01881>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  118. : MNI=. 013: SCI=    .0]
01882>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
01883>       [ SMN=  31. 15:  SMX=207. 66:  SK=  .010]
01884> R0002: C00277-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01885>     CONTINUOUS STANDHYD      1.0 01: TODD_MN3          2.12       .179 No_date   28:00   28.91 .635       .000
01886>       [ XI M=. 53: TI M=. 57]
01887>       [ LOSS= 2 : CN= 77.0]
01888>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
01889>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=   28. : MNI=. 013: SCI=    .0]
01890>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
01891>       [ SMN=  31. 15:  SMX=207. 66:  SK=  .010]
01892> R0002: C00278-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01893>     CONTINUOUS STANDHYD      1.0 01: TODD_MI          30.23       2.154 No_date   28:03   29.64 .651       .000
01894>       [ XI M=. 52: TI M=. 64]
01895>       [ LOSS= 2 : CN= 77.0]
01896>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
01897>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  449. : MNI=. 013: SCI=    .0]
01898>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
01899>       [ SMN=  31. 15:  SMX=207. 66:  SK=  .010]
01900> R0002: C00279-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01901>     CONTINUOUS STANDHYD      1.0 01: TODD_ALL        112.91       6.553 No_date   28:06   28.70 .631       .000
01902>       [ XI M=. 52: TI M=. 57]
01903>       [ LOSS= 2 : CN= 77.0]
01904>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
01905>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  868. : MNI=. 013: SCI=    .0]
01906>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
01907>       [ SMN=  31. 15:  SMX=207. 66:  SK=  .010]
01908> R0002: C00280-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01909>     CONTINUOUS STANDHYD      1.0 01: TODD_P            3.06       .295 No_date   28:00   31.76 .698       .000
01910>       [ XI M=. 63: TI M=. 63]
01911>       [ LOSS= 2 : CN= 77.0]
01912>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
01913>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  143. : MNI=. 013: SCI=    .0]
01914>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
01915>       [ SMN=  31. 15:  SMX=207. 66:  SK=  .010]
01916> # 5- Year + 12% Capture
01917> R0002: C00281-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01918>     ROUTE RESERVOIR  ->      1. 0 02: TODD_MI          30.23       2.154 No_date   28:03   29.64  n/a       .000
01919> *           out <=           1. 0 01: TODD_MIn         30.23       2.154 No_date   28:03   29.64  n/a       .000
01920>            overflow <=       1. 0 03: TODD_MIj          .00        .000 No_date   0: 00     .00  n/a       .000
01921>       [ Mi St o l ke d=. 6551E-04  m3,  To t Ov f Vo l =. 0000E+00  m3,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
01922> # 5- Year + 12% Capture
01923> R0002: C00282-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01924>     ROUTE RESERVOIR  ->      1. 0 02: TODD_MN2          2.10       .179 No_date   28:00   28.91  n/a       .000
01925>                      out <=   1. 0 01: TODD_MN2n         2.10       .179 No_date   28:00   28.91  n/a       .000
01926>            overflow <=       1. 0 03: TODD_MN2j          .00        .000 No_date   0: 00     .00  n/a       .000
01927>       [ Mi St o l ke d=. 6761E-04  m3,  To t Ov f Vo l =. 0000E+00  m3,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
01928> R0002: C00283-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01929>     ROUTE RESERVOIR  ->      1. 0 02: TODD_MN3           .12        .011 No_date   28:00   28.91  n/a       .000
01930>                      out <=   1. 0 01: TODD_MN3n          .12        .010 No_date   28:00   28.91  n/a       .000
01931>            overflow <=       1. 0 03: TODD_MN3j           .00        .000 No_date   0: 00     .00  n/a       .000
01932>       [ Mi St o l ke d=. 6566E-04  m3,  To t Ov f Vo l =. 0000E+00  m3,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
01933> R0002: C00284-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01934>     CONTINUOUS STANDHYD      1.0 01: A2               25.50       1.427 No_date   28:04   25.60 .563       .000
01935>       [ XI M=. 42: TI M=. 52]
01936>       [ LOSS= 2 : CN= 75.0]
01937>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
01938>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  566. : MNI=. 013: SCI=    .0]
01939>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
01940>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
01941> R0002: C00285-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01942>     COMPUTE DUALHYD          1. 0 01: A2              25.50       1.427 No_date   28:04   25.60  n/a       .000
01943>       Major System   /       1. 0 02: A2- MI           .00        .000 No_date   0: 00     .00  n/a       .000
01944>       Minor System   \       1. 0 03: A2- MN         25.50       1.427 No_date   28:04   25.60  n/a       .000
01945>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
01946> R0002: C00286-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01947>     ADD HYD                  1. 0 02: TODD_MN2n         2.10       .179 No_date   28:00   28.91  n/a       .000
01948>                        +     1. 0 02: TODD_MN3n          .12        .010 No_date   28:00   28.91  n/a       .000
01949>                        +     1. 0 02: TODD_MIj           .00        .000 No_date   0: 00     .00  n/a       .000
01950>                        +     1. 0 02: TODD_P            3.06       .295 No_date   28:00   31.77  n/a       .000
01951>                        +     1. 0 02: TODD_ALL        112.91       6.553 No_date   28:06   28.70  n/a       .000
01952>                        +     1. 0 02: W_CLAR_MIn        1.77       .141 No_date   28:00   27.78  n/a       .000
01953>                      SUM=    1. 0 01: TODD            119.95      6.882 No_date   28:05   28.77  n/a       .000
01954> R0002: C00287-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01955>     SAVE HYD                 1. 0 01: TODD            119.95      6.882 No_date   28:05   28.77  n/a       .000
01956>       fname : TODD 0002
01957>       remark: Total Flows at Todd Drain
01958> #*******************************************************************************
01959> #     Todd Pond 3
01960> #     - Rating curve obtained from Barrhaven South MSS modeling
01961> #     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
01962> #*******************************************************************************
01963> R0002: C00288-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01964>     ROUTE RESERVOIR  ->      1. 0 02: TODD            119.95      6.882 No_date   28:05   28.77  n/a       .000
01965>                      out <=   1. 0 01: MS_P3           119.95      1.033 No_date   29:08   28.76  n/a       .000
01966>            overflow <=       1. 0 03: P3- OVF            .00        .000 No_date   0: 00     .00  n/a       .000
01967>       [ Mi St o l ke d=. 2183E+01  m3,  To t Ov f Vo l =. 0000E+00  m3,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
01968> R0002: C00289-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01969>     ADD HYD                  1. 0 02: GreenB          54717.73     49.055 No_date   37: 10   13. 05  n/a       .000
01970>                        +     1. 0 02: MS_P3           119.95      1.033 No_date   29:08   28.76  n/a       .000
01971>                        +     1. 0 02: P3- OVF            .00        .000 No_date   0: 00     .00  n/a       .000
01972>                        +     1. 0 02: TODD_MN2j          .00        .000 No_date   0: 00     .00  n/a       .000
01973>                        +     1. 0 02: A2- MI             .00        .000 No_date   0: 00     .00  n/a       .000
01974>                      SUM=    1. 0 01: SN_TO           54837.69     49.202 No_date   37: 09   13. 08  n/a       .000
01975> R0002: C00290-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01976>     SAVE HYD                 1. 0 01: SN_TO           54837.69     49.202 No_date   37: 09   13. 08  n/a       .000
01977>       fname : SN_TO 0002
01978>       remark: Total Flows at Todd Drain
01979> #
01980> # Hydrograph from Todd Drain routed to Corrigan Drain
01981> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
01982> # 2021-02-19 Change the slope from 0.033 %(as per Stantec Report 2007) to 0.05 %so the model will be more stable and g
01983> R0002: C00291-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01984>     ROUTE CHANNEL    ->      1. 0 02: SN_TO           54837.69     49.202 No_date   37: 09   13. 08  n/a       .000
01985> *           [ RDT= 1. 00]  out <-           1. 0 01: N_TO           54837.69     48.869 No_date   38: 25   13. 08  n/a       .000
01986>       [ L/ S/ n=   280. / . 050/ . 045]
01987>       [ Vmx=   . 730: Dmx=  2. 134]
01988> R0002: C00292-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01989>     SAVE HYD                 1. 0 01: N_TO            54837.69     48.869 No_date   38: 25   13. 08  n/a       .000
01990>       fname : N_TO 0002
01991>       remark: Total inflows at Station 2462
01992> #*******************************************************************************
01993> #     Catchment CORRIG
01994> #     - To Corrigan Drain (south of the Jock)
01995> #     - Primarily Developed (medium density)
01996> #     - JFSA JAN 2021, added Corrigan subcatchments as per IBI, July 2008
01997> #*******************************************************************************
01998> R0002: C00293-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01999>     CONTINUOUS STANDHYD      1. 0 01: corr1           15.87       1.352 No_date   28:02   31.77 .698       .000
02000>       [ XI M=. 63: TI M=. 63]
02001>       [ LOSS= 2 : CN= 77.0]
02002>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02003>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  325. : MNI=. 013: SCI=    .0]
02004>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02005>       [ SMN=  31. 15:  SMX=207. 66:  SK=  .010]
02006> R0002: C00294-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02007>     COMPUTE DUALHYD          1. 0 01: corr1           15.87       1.352 No_date   28:02   31.77  n/a       .000
02008>       Major System   /       1. 0 02: corr1- MI          .00        .000 No_date   0: 00     .00  n/a       .000
02009>       Minor System   \       1. 0 03: corr1- MN        15.87       1.352 No_date   28:02   31.77  n/a       .000
02010>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02011> R0002: C00295-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02012>     CONTINUOUS NASHYD        1. 0 01: corr2           12.47       .100 No_date   29: 12   14. 83  .326       .000
02013>       [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
02014>       [ I a REC= 4. 00:  SMN=  31. 15:  SMX=207. 66:  SK=  .010]
02015>       [ I nt er Event Time=  12. 00]
02016> R0002: C00296-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02017>     CONTINUOUS STANDHYD      1. 0 01: A1- Corrig       15.75        .982 No_date   28:02   25.60 .563       .000
02018>       [ XI M=. 42: TI M=. 52]
02019>       [ LOSS= 2 : CN= 75.0]
02020>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02021>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  324. : MNI=. 013: SCI=    .0]
02022>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02023>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
02024> R0002: C00297-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02025>     COMPUTE DUALHYD          1. 0 01: A1- Corrig       15.75        .982 No_date   28:02   25.60  n/a       .000
02026>       Major System   /       1. 0 02: A1- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02027>       Minor System   \       1. 0 03: A1- MN           15.75        .982 No_date   28:02   25.60  n/a       .000
02028>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02029> R0002: C00298-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02030>     CONTINUOUS NASHYD        1. 0 01: BI               2.77        .033 No_date   28:09    9. 64  .212       .000
02031>       [ CN= 56. 0:  N= 3. 00:  Tp=  . 23]
02032>       [ I a REC= 4. 00:  SMN=  79. 69:  SMX=531. 24:  SK=  .010]
02033>       [ I nt er Event Time=  12. 00]
02034> R0002: C00299-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02035>     CONTINUOUS STANDHYD      1. 0 01: A4               1.27        .116 No_date   28:01   32. 20 .707       .000
02036>       [ XI M=. 65: TI M=. 65]
02037>       [ LOSS= 2 : CN= 75.0]
02038>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02039>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  253. : MNI=. 013: SCI=    .0]
02040>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02041>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
02042> R0002: C00300-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02043>     COMPUTE DUALHYD          1. 0 01: A4               1.27        .116 No_date   28:01   32. 20  n/a       .000
02044>       Major System   /       1. 0 02: A4- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02045>       Minor System   \       1. 0 03: A4- MN           1.27        .116 No_date   28:01   32. 20  n/a       .000
02046>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02047> R0002: C00301-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02048>     ADD HYD                  1. 0 02: A1- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02049>                        +     1. 0 02: A1- MN           15.75        .982 No_date   28:02   25.60  n/a       .000
02050>                        +     1. 0 02: corr1- MI          .00        .000 No_date   0: 00     .00  n/a       .000
02051>                        +     1. 0 02: corr1- MN        15.87       1.352 No_date   28:02   31.77  n/a       .000
02052>                        +     1. 0 02: corr2            12.47        .100 No_date   29: 12   14. 83  n/a       .000
02053>                        +     1. 0 02: BI                2.77        .033 No_date   28:09    9. 64  n/a       .000
02054>                        +     1. 0 02: A4- MN            1.27        .116 No_date   28:01   32. 20  n/a       .000
02055>                      SUM=    1. 0 01: MHI01           48. 13      2. 497 No_date   28:02   24. 10  n/a       .000
02056> R0002: C00302-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02057>     SAVE HYD                 1. 0 01: MHI01           48. 13      2. 497 No_date   28:02   24. 10  n/a       .000
02058>       fname : MHI01. 0002
02059>       remark: Total Flows at MHI01
02060> R0002: C00303-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02061>     ROUTE PIPE       ->      1. 0 02: MHI01           48. 13      2. 497 No_date   28:02   24. 10  n/a       .000
02062> *           [ RDT= 1. 00]  out <-           1. 0 01: 101- 102       48. 13      2. 412 No_date   28:03   24. 10  n/a       .000
02063>       [ L/ S/ n=   368. / . 540/ . 013]
02064>       [ Vmx=  2. 789: Dmx=   . 935]
02065>       [ Di n=  1. 05: Used=  1. 14]
02066> R0002: C00304-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02067>     ADD HYD                  1. 0 02: A2- MN           25.50       1.427 No_date   28:04   25.60  n/a       .000
02068>                        +     1. 0 02: 101- 102         48. 13      2. 412 No_date   28:03   24. 10  n/a       .000
02069>                      SUM=    1. 0 01: MHI02            73. 63      3. 837 No_date   28:03   24. 62  n/a       .000
02070> R0002: C00305-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02071>     SAVE HYD                 1. 0 01: MHI02            73. 63      3. 837 No_date   28:03   24. 62  n/a       .000
02072>       fname : MHI02. 0002
02073>       remark: Total Flows at MHI02
02074> R0002: C00306-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02075>     CONTINUOUS STANDHYD      1. 0 01: A5               1.60        .155 No_date   28:01   34. 21 .752       .000
02076>       [ XI M=. 71: TI M=. 71]
02077>       [ LOSS= 2 : CN= 75.0]
02078>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02079>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  300. : MNI=. 013: SCI=    .0]
02080>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02081>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
02082> R0002: C00307-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02083>     ADD HYD                  1. 0 02: A4- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02084>                        +     1. 0 02: A5               1.60        .155 No_date   28:01   34. 21  n/a       .000
02085>                      SUM=    1. 0 01: AST              1.60        .155 No_date   28:01   34. 21  n/a       .000
02086> R0002: C00308-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02087>     COMPUTE DUALHYD          1. 0 01: AST              1.60        .155 No_date   28:01   34. 21  n/a       .000
02088>       Major System   /       1. 0 02: A5- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02089>       Minor System   \       1. 0 03: A5- MN           1.60        .155 No_date   28:01   34. 21  n/a       .000
02090>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02091> R0002: C00309-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02092>     ROUTE PIPE       ->      1. 0 02: MHI02            73. 63      3. 837 No_date   28:03   24. 62  n/a       .000
02093> *           [ RDT= 1. 00]  out <-           1. 0 01: 102- 103       73. 63      3. 600 No_date   28:05   24. 62  n/a       .000
02094>       [ L/ S/ n=   504. / . 280/ . 013]
02095>       [ Vmx=  2. 428: Dmx=  1. 243]
02096>       [ Di n=  1. 50: Used=  1. 51]
02097> R0002: C00310-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02098>     ADD HYD                  1. 0 02: 102- 103         73. 63      3. 600 No_date   28:05   24. 62  n/a       .000
02099>                        +     1. 0 02: A5- MN           1.60        .155 No_date   28:01   34. 21  n/a       .000
02100>                      SUM=    1. 0 01: MHI03            75. 23      3. 728 No_date   28:05   24. 82  n/a       .000
02101> R0002: C00311-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02102>     SAVE HYD                 1. 0 01: MHI03            75. 23      3. 728 No_date   28:05   24. 82  n/a       .000
02103>       fname : MHI03. 0002
02104>       remark: Total Flows at MHI03
02105> R0002: C00312-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02106>     ROUTE PIPE       ->      1. 0 02: MHI03            75. 23      3. 728 No_date   28:05   24. 82  n/a       .000
02107>       [ RDT= 1. 00]  out <-           1. 0 01: 103- 104       75. 23      3. 629 No_date   28:07   24. 82  n/a       .000
02108>       [ L/ S/ n=   438. / . 460/ . 013]
02109>       [ Vmx=  3. 024: Dmx=   . 924]
02110>       [ Di n=  1. 65: Used=  1. 65]
02111> R0002: C00313-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02112>     CONTINUOUS STANDHYD      1. 0 01: A6               1.56        .152 No_date   28:01   34. 21  .752       .000
02113>       [ XI M=. 71: TI M=. 71]
02114>       [ LOSS= 2 : CN= 75.0]
02115>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02116>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  280. : MNI=. 013: SCI=    .0]
02117>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02118>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
02119> R0002: C00314-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02120>     ADD HYD                  1. 0 02: A5- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02121>                        +     1. 0 02: A6               1.56        .152 No_date   28:01   34. 21  n/a       .000
02122>                      SUM=    1. 0 01: AST              1.56        .152 No_date   28:01   34. 21  n/a       .000
02123> R0002: C00315-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02124>     COMPUTE DUALHYD          1. 0 01: AST              1.56        .152 No_date   28:01   34. 21  n/a       .000
02125>       Major System   /       1. 0 02: A6- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02126>       Minor System   \       1. 0 03: A6- MN           1.56        .152 No_date   28:01   34. 21  n/a       .000
02127>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02128> R0002: C00316-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02129>     ADD HYD                  1. 0 02: A6- MN           1.56        .152 No_date   28:01   34. 21  n/a       .000
02130>                        +     1. 0 02: 103- 104         75. 23      3. 629 No_date   28:07   24. 82  n/a       .000
02131>                        +     1. 0 02: TODD_MIn         30.23       2.154 No_date   28:03   29.64  n/a       .000
02132>                      SUM=    1. 0 01: MHI04           107. 02      5. 765 No_date   28:05   26. 32  n/a       .000
02133> R0002: C00317-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02134>     SAVE HYD                 1. 0 01: MHI04           107. 02      5. 765 No_date   28:05   26. 32  n/a       .000
02135>       fname : MHI04. 0002
02136>       remark: Total Flows at MHI04
02137> R0002: C00318-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02138>     CONTINUOUS STANDHYD      1. 0 01: B2               12. 31       .731 No_date   28:03   25. 66 .564       .000
02139>       [ XI M=. 41: TI M=. 54]
02140>       [ LOSS= 2 : CN= 75.0]
02141>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02142>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  417. : MNI=. 013: SCI=    .0]
02143>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02144>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
02145> R0002: C00319-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02146>     COMPUTE DUALHYD          1. 0 01: B2               12. 31       .731 No_date   28:03   25. 66  n/a       .000
02147>       Major System   /       1. 0 02: B2- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02148>       Minor System   \       1. 0 03: B2- MN           12. 31       .731 No_date   28:03   25. 66  n/a       .000
02149>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02150> R0002: C00320-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02151>     ROUTE PIPE       ->      1. 0 02: B2- MN           12. 31       .731 No_date   28:03   25. 66  n/a       .000
02152>       [ RDT= 1. 00]  out <-           1. 0 01: 315- 333       12. 31       .675 No_date   28:04   25. 66  n/a       .000
02153>       [ L/ S/ n=   254. / . 100/ . 013]
02154>       [ Vmx=  1. 136: Dmx=   . 665]
02155>       [ Di n=  1. 20: Used=  1. 20]
02156> R0002: C00321-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02157>     CONTINUOUS STANDHYD      1. 0 01: B3                5.59        .346 No_date   28:02   25. 66 .564       .000
02158>       [ XI M=. 41: TI M=. 54]
02159>       [ LOSS= 2 : CN= 75.0]
02160>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02161>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  345. : MNI=. 013: SCI=    .0]
02162>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02163>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
02164> R0002: C00322-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02165>     COMPUTE DUALHYD          1. 0 01: B3                5.59        .346 No_date   28:02   25. 66  n/a       .000
02166>       Major System   /       1. 0 02: B3- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02167>       Minor System   \       1. 0 03: B3- MN           5.59        .346 No_date   28:02   25. 66  n/a       .000
02168>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02169> R0002: C00323-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02170>     ADD HYD                  1. 0 02: B3- MN           5.59        .346 No_date   28:02   25. 66  n/a       .000
02171>                        +     1. 0 02: 315- 333         12. 31       .675 No_date   28:04   25. 66  n/a       .000
02172>                      SUM=    1. 0 01: MHI33            17. 90      1. 009 No_date   28:04   25. 66  n/a       .000
02173> R0002: C00324-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02174>     SAVE HYD                 1. 0 01: MHI33            17. 90      1. 009 No_date   28:04   25. 66  n/a       .000
02175>       fname : MHI33. 0002
02176>       remark: Total Flows at MHI33
02177> R0002: C00325-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02178>     ROUTE PIPE       ->      1. 0 02: MHI33            17. 90      1. 009 No_date   28:04   25. 66  n/a       .000
02179>       [ RDT= 1. 00]  out <-           1. 0 01: 333- 335       17. 90       .937 No_date   28:05   25. 66  n/a       .000
02180>       [ L/ S/ n=   251. / . 100/ . 013]
02181>       [ Vmx=  1. 217: Dmx=   . 826]
02182>       [ Di n=  1. 20: Used=  1. 20]
02183> R0002: C00326-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02184>     ROUTE PIPE       ->      1. 0 02: 333- 335         17. 90       .937 No_date   28:05   25. 66  n/a       .000
02185>       [ RDT= 1. 00]  out <-           1. 0 01: 335- 338       17. 90       .888 No_date   28:07   25. 66  n/a       .000
02186>       [ L/ S/ n=   185. / . 100/ . 013]
02187>       [ Vmx=  1. 199: Dmx=   . 782]
02188>       [ Di n=  1. 20: Used=  1. 20]
02189> R0002: C00327-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02190>     ROUTE PIPE       ->      1. 0 02: 335- 338         17. 90       .888 No_date   28:07   25. 66  n/a       .000
02191>       [ RDT= 1. 00]  out <-           1. 0 01: 338- 340       17. 90       .838 No_date   28:08   25. 66  n/a       .000
02192>       [ L/ S/ n=   233. / . 100/ . 013]
02193>       [ Vmx=  1. 194: Dmx=   . 695]
02194>       [ Di n=  1. 35: Used=  1. 35]
02195> R0002: C00328-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02196>     CONTINUOUS STANDHYD      1. 0 01: B4                7.60        .459 No_date   28:02   25. 66 .564       .000
02197>       [ XI M=. 41: TI M=. 54]
02198>       [ LOSS= 2 : CN= 75.0]
02199>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02200>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  388. : MNI=. 013: SCI=    .0]
02201>       [ I a REC i mp=   4. 00: I a REC per=   4. 00]
02202>       [ SMN=  33. 81:  SMX=225. 43:  SK=  .010]
02203> R0002: C00329-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02204>     COMPUTE DUALHYD          1. 0 01: B4                7.60        .459 No_date   28:02   25. 66  n/a       .000
02205>       Major System   /       1. 0 02: B4- MI             .00        .000 No_date   0: 00     .00  n/a       .000
02206>       Minor System   \       1. 0 03: B4- MN           7.60        .459 No_date   28:02   25. 66  n/a       .000
02207>       [ Mj Sys St o=. 0000E+00,  To t Ov f Vo l =. 0000E+00,  N- Ov f =     0,  To t Dur Ov f =     0. hr s]
02208> R0002: C00330-------------DTmin-ID: NHYD---------AREAha-QPEAK
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02245> R0002: C00337-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02246>       CONTINUOUS STANDHYD     1.0 01: A8                 .96        .099 No_date   0:00    34.21 .752      .000
02247>         [ XI M=. 71: TI M=. 71]
02248>         [ LOSS= 2 : CN= 75.0]
02249>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02250>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 186. : MNI=. 013: SCI=    .0]
02251>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02252>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02253> R0002: C00338-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02254>       ADD HYD                 1.0 02: A6- MI             .00        .000 No_date   0:00     .00  n/a      .000
02255>                         +     1.0 02: A8                 .96        .099 No_date   0:00    34.21  n/a      .000
02256>                         SUM=  1.0 01: A8T                .96        .099 No_date   0:00    34.21  n/a      .000
02257> R0002: C00339-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02258>       COMPUTE DUALHYD         1.0 01: A8T                .96        .099 No_date   0:00    34.21  n/a      .000
02259>         Major System    /     1.0 02: A8- MI             .00        .000 No_date   0:00     .00  n/a      .000
02260>         Minor System    \     1.0 03: A8- MN             .96        .099 No_date   0:00    34.21  n/a      .000
02261>         [ MJSysSto=. 0000E+00,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02262> R0002: C00340-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02263>       ADD HYD                 1.0 02: 104- 105          132. 52      6. 452 No_date   28: 06   26. 19  n/a      .000
02264>                         +     1.0 02: BS- MN            2. 20       . 187 No_date   28: 00   29. 51  n/a      .000
02265>                         +     1.0 02: A6- MN             .96        .099 No_date   28: 00   34. 21  n/a      .000
02266>                         +     1.0 02: TODD_MN3j          .00        .000 No_date   0: 00     .00  n/a      .000
02267>                         SUM=  1.0 01: MH105          135. 68      6. 624 No_date   28: 06   26. 30  n/a      .000
02268> R0002: C00341-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02269>       SAVE HYD                1.0 01: MH105          135. 68      6. 624 No_date   28: 06   26. 30  n/a      .000
02270>         fname : MH105. 0002
02271>         remark: Total Flows at MH105
02272> R0002: C00342-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02273> *     DIVERT HYD          ->    1.0 01: A8- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02274>                 diverted  <=    1.0 02: A8- MJ- JR         .00        .000 No_date   0: 00     .00  n/a      .000
02275>                 diverted  <=    1.0 03: A8- MI- B6         .00        .000 No_date   0: 00     .00  n/a      .000
02276> R0002: C00343-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02277>       DIVERT HYD          ->    1.0 01: MH105          135. 68      6. 624 No_date   28: 06   26. 30  n/a      .000
02278>                 diverted  <=    1.0 02: MH105- JR          16. 59      3. 620 No_date   28: 06   26. 30  n/a      .000
02279>                 diverted  <=    1.0 03: MH105- B6         119. 09      3. 004 No_date   28: 06   26. 30  n/a      .000
02280> R0002: C00344-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02281>       COMPUTE DUALHYD         1.0 01: B7                7. 19       . 479 No_date   28: 01   25. 66  n/a      .000
02282>         [ XI M=. 41: TI M=. 54]
02283>         [ LOSS= 2 : CN= 75.0]
02284>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02285>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 211. : MNI=. 013: SCI=    .0]
02286>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02287>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02288> R0002: C00345-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02289>       ADD HYD                 1.0 02: B4- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02290>                         +     1.0 02: B7                7. 19       . 479 No_date   28: 01   25. 66  n/a      .000
02291>                         SUM=  1.0 01: B7- B4M          7. 19       . 479 No_date   28: 01   25. 66  n/a      .000
02292> R0002: C00346-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02293>       COMPUTE DUALHYD         1.0 01: B4M               7. 19       . 479 No_date   28: 01   25. 66  n/a      .000
02294>         Major System    /     1.0 02: B7R- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02295>         Minor System    \     1.0 03: B7R- MN           7. 19       . 479 No_date   28: 01   25. 66  n/a      .000
02296>         [ MJSysSto=. 0000E+00,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02297> R0002: C00347-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02298>       ROUTE PIPE              ->    1.0 02: B7R- MN           7. 19       . 479 No_date   28: 01   25. 66  n/a      .000
02299>         [ RDT=  1. 00] out <-       1.0 01: 360- 106A         7. 19       . 451 No_date   28: 02   25. 66  n/a      .000
02300>         [ L/ S/ n=  167. /  . 100/ . 013]
02301>         [ Vmax=  1. 023: Dmax=  . 558]
02302>         [ Di n=  1. 05: Used=  1. 05]
02303> R0002: C00348-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02304>       CONTINUOUS STANDHYD     1.0 01: B6                3. 29       . 229 No_date   28: 00   25. 66  . 564    .000
02305>         [ XI M=. 41: TI M=. 54]
02306>         [ LOSS= 2 : CN= 75.0]
02307>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02308>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 148. : MNI=. 013: SCI=    .0]
02309>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02310>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02311> R0002: C00349-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02312>       COMPUTE DUALHYD         1.0 01: B6                3. 29       . 229 No_date   28: 00   25. 66  n/a      .000
02313>         Major System    /     1.0 02: B6- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02314>         Minor System    \     1.0 03: B6- MN            3. 29       . 064 No_date   27: 43   25. 67  n/a      .000
02315>         [ MJSysSto=. 1576E+03,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02316> R0002: C00350-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02317>       CONTINUOUS STANDHYD     1.0 01: EX- LAND          32. 50      2. 093 No_date   28: 02   26. 85  . 590    .000
02318>         [ XI M=. 50: TI M=. 50]
02319>         [ LOSS= 2 : CN= 74.0]
02320>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02321>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 465. : MNI=. 013: SCI=    .0]
02322>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02323>         [ SMN= 36. 67: SMX=244. 49: SK=  .010]
02324> R0002: C00351-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02325>       COMPUTE DUALHYD         1.0 01: EX- LAND          32. 50      2. 093 No_date   28: 02   26. 85  n/a      .000
02326>         Major System    /     1.0 02: EX- LAND- MI       .00        .000 No_date   0: 00     .00  n/a      .000
02327>         Minor System    \     1.0 03: EX- LAND- MN      32. 50      2. 093 No_date   28: 02   26. 85  n/a      .000
02328>         [ MJSysSto=. 0000E+00,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02329> R0002: C00352-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02330>       ADD HYD                 1.0 02: B7R- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02331>                         +     1.0 02: EX- LAND- MI       .00        .000 No_date   0: 00     .00  n/a      .000
02332>                         +     1.0 02: BS- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02333>                         +     1.0 02: B6- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02334>                         +     1.0 02: B6- MN            3. 29       . 064 No_date   27: 43   25. 67  n/a      .000
02335>                         +     1.0 02: A8- MI- B6         .00        .000 No_date   0: 00     .00  n/a      .000
02336>                         SUM=  1.0 01: B6- B7EXMI        3. 29       . 064 No_date   27: 43   25. 67  n/a      .000
02337> R0002: C00353-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02338>       COMPUTE DUALHYD         1.0 01: B6- B7EXMI        3. 29       . 064 No_date   27: 43   25. 67  n/a      .000
02339>         Major System    /     1.0 02: B6R- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02340>         Minor System    \     1.0 03: B6R- MN           3. 29       . 064 No_date   27: 43   25. 67  n/a      .000
02341>         [ MJSysSto=. 0000E+00,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02342> R0002: C00354-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02343>       ROUTE PIPE              ->    1.0 02: MH105- B6         119. 09      3. 004 No_date   28: 06   26. 30  n/a      .000
02344>         [ RDT=  1. 00] out <-       1.0 01: 105- 106A         119. 09      3. 006 No_date   28: 08   26. 30  n/a      .000
02345>         [ L/ S/ n=  208. /  . 100/ . 013]
02346>         [ Vmax=  1. 596: Dmax=  1. 247]
02347>         [ Di n=  1. 80: Used=  1. 80]
02348> R0002: C00355-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02349>       ADD HYD                 1.0 02: 360- 106A          7. 19       . 451 No_date   28: 02   25. 66  n/a      .000
02350>                         +     1.0 02: 105- 106A         119. 09      3. 006 No_date   28: 08   26. 30  n/a      .000
02351>                         +     1.0 02: B6R- MN           3. 29       . 064 No_date   27: 43   25. 67  n/a      .000
02352>                         +     1.0 02: B6R- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02353>                         SUM=  1.0 01: MH106A          129. 57      3. 466 No_date   28: 03   26. 25  n/a      .000
02354> R0002: C00356-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02355>       SAVE HYD                1.0 01: MH106A         129. 57      3. 466 No_date   28: 03   26. 25  n/a      .000
02356>         fname : MH106A. 0002
02357>         remark: Total Flows at MH106A
02358> R0002: C00357-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02359>       ROUTE PIPE              ->    1.0 02: MH106A         129. 57      3. 466 No_date   28: 03   26. 25  n/a      .000
02360> *     [ RDT=  1. 00] out <-       1.0 01: 106A- 106         129. 57      3. 450 No_date   28: 04   26. 25  n/a      .000
02361>         [ L/ S/ n=  190. /  . 100/ . 013]
02362>         [ Vmax=  1. 626: Dmax=  1. 406]
02363>         [ Di n=  1. 80: Used=  1. 80]
02364> R0002: C00358-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02365>       CONTINUOUS STANDHYD     1.0 01: A9                2. 44       . 240 No_date   28: 01   34. 21  . 752    .000
02366>         [ XI M=. 71: TI M=. 71]
02367>         [ LOSS= 2 : CN= 75.0]
02368>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02369>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 262. : MNI=. 013: SCI=    .0]
02370>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02371>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02372> R0002: C00359-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02373>       COMPUTE DUALHYD         1.0 01: A9                2. 44       . 240 No_date   28: 01   34. 21  n/a      .000
02374>         Major System    /     1.0 02: A9- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02375>         Minor System    \     1.0 03: A9- MN            2. 44       . 240 No_date   28: 01   34. 21  n/a      .000
02376> R0002: C00360-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02377>       ADD HYD                 1.0 02: 106A- 106         129. 57      3. 450 No_date   28: 04   26. 25  n/a      .000
02378>                         +     1.0 02: A9- MN            2. 44       . 240 No_date   28: 01   34. 21  n/a      .000
02379>                         SUM=  1.0 01: MH106           132. 01      3. 666 No_date   28: 03   26. 40  n/a      .000
02380> R0002: C00361-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02381>       SAVE HYD                1.0 01: MH106          132. 01      3. 666 No_date   28: 03   26. 40  n/a      .000
02382>         fname : MH106. 0002
02383>         remark: Total Flows at MH106
02384> R0002: C00362-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02385>       ROUTE PIPE              ->    1.0 02: MH106          132. 01      3. 666 No_date   28: 03   26. 40  n/a      .000
02386> *     [ RDT=  1. 00] out <-       1.0 01: 106- 107          132. 01      3. 602 No_date   28: 06   26. 40  n/a      .000
02387>         [ L/ S/ n=  123. /  . 100/ . 013]
02388>         [ Vmax=  1. 631: Dmax=  1. 482]
02389>         [ Di n=  1. 80: Used=  1. 81]
02390> R0002: C00363-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02391>       CONTINUOUS STANDHYD     1.0 01: A10               4. 14       . 246 No_date   28: 01   23. 49  . 516    .000
02392>         [ XI M=. 35: TI M=. 47]
02393>         [ LOSS= 2 : CN= 75.0]
02394>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02395>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    .0]
02396>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02397>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02398> R0002: C00364-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02399>       COMPUTE DUALHYD         1.0 01: A10               4. 14       . 246 No_date   28: 01   23. 49  n/a      .000
02400>         Major System    /     1.0 02: A10- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02401>         Minor System    \     1.0 03: A10- MN           4. 14       . 246 No_date   28: 01   23. 49  n/a      .000
02402>         [ MJSysSto=. 0000E+00,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02403> R0002: C00365-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02404>       CONTINUOUS STANDHYD     1.0 01: A11               10. 61       . 781 No_date   28: 02   29. 20  . 642    .000
02405>         [ XI M=. 53: TI M=. 62]
02406>         [ LOSS= 2 : CN= 75.0]
02407>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02408>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=    .0]
02409>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02410>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02411> R0002: C00366-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02412>       COMPUTE DUALHYD         1.0 01: A11               10. 61       . 781 No_date   28: 02   29. 20  n/a      .000
02413>         Major System    /     1.0 02: A11- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02414>         Minor System    \     1.0 03: A11- MN           10. 61       . 781 No_date   28: 02   29. 20  n/a      .000
02415>         [ MJSysSto=. 0000E+00,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02416> R0002: C00367-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02417>       ADD HYD                 1.0 02: 106- 107          132. 01      3. 602 No_date   28: 06   26. 40  n/a      .000
02418>                         +     1.0 02: A10- MN           4. 14       . 246 No_date   28: 01   23. 49  n/a      .000
02419>                         +     1.0 02: A11- MN           10. 61       . 781 No_date   28: 02   29. 20  n/a      .000
02420>                         SUM=  1.0 01: MH107           146. 76      4. 589 No_date   28: 02   26. 52  n/a      .000
02421> R0002: C00368-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02422>       SAVE HYD                1.0 01: MH107          146. 76      4. 589 No_date   28: 02   26. 52  n/a      .000
02423>         fname : MH107. 0002
02424>         remark: Total Flows at MH107
02425> R0002: C00369-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02426>       ROUTE PIPE              ->    1.0 02: MH107          146. 76      4. 589 No_date   28: 02   26. 52  n/a      .000
02427> *     [ RDT=  1. 00] out <-       1.0 01: 107- 119          146. 76      4. 493 No_date   28: 07   26. 52  n/a      .000
02428>         [ L/ S/ n=  114. /  . 120/ . 013]
02429>         [ Vmax=  1. 848: Dmax=  1. 558]
02430>         [ Di n=  1. 80: Used=  1. 90]
02431> R0002: C00370-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02432>       ROUTE PIPE              ->    1.0 02: 107- 119          146. 76      4. 493 No_date   28: 07   26. 52  n/a      .000
02433> *     [ RDT=  1. 00] out <-       1.0 01: 119- 108          146. 76      4. 469 No_date   28: 07   26. 52  n/a      .000
02434>         [ L/ S/ n=  66. /  . 120/ . 013]
02435>         [ Vmax=  1. 838: Dmax=  1. 546]
02436>         [ Di n=  1. 80: Used=  1. 88]
02437> R0002: C00371-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02438>       CONTINUOUS STANDHYD     1.0 01: A12               12. 29        .834 No_date   28: 01   25. 66  . 564    .000
02439>         [ XI M=. 41: TI M=. 54]
02440>         [ LOSS= 2 : CN= 75.0]
02441>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02442>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    .0]
02443>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02444>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02445> R0002: C00372-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02446>       COMPUTE DUALHYD         1.0 01: A12               12. 29        .834 No_date   28: 01   25. 66  n/a      .000
02447>         Major System    /     1.0 02: A12- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02448>         Minor System    \     1.0 03: A12- MN           12. 29        .834 No_date   28: 01   25. 66  n/a      .000
02449>         [ MJSysSto=. 0000E+00,  Tot Or Vol=. 0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02450> R0002: C00373-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02451>       CONTINUOUS STANDHYD     1.0 01: A13               2. 59        .239 No_date   28: 02   34. 21  . 752    .000
02452>         [ XI M=. 71: TI M=. 71]
02453>         [ LOSS= 2 : CN= 75.0]
02454>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02455>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=    .0]
02456>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02457>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02458> R0002: C00374-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02459>       COMPUTE DUALHYD         1.0 01: A13               2. 59        .239 No_date   28: 02   34. 21  n/a      .000
02460>         Major System    /     1.0 02: A13- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02461>         Minor System    \     1.0 03: A13- MN           2. 59        .239 No_date   28: 02   34. 21  n/a      .000
02462> R0002: C00375-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02463>       CONTINUOUS STANDHYD     1.0 01: Pond- Block       2. 94        .190 No_date   28: 01   24. 31  . 534    .000
02464>         [ XI M=. 41: TI M=. 41]
02465>         [ LOSS= 2 : CN= 75.0]
02466>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02467>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    .0]
02468>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02469>         [ SMN= 33. 81: SMX=225. 43: SK=  .010]
02470> R0002: C00376-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02471>       ADD HYD                 1.0 02: 119- 108          146. 76      4. 469 No_date   28: 07   26. 52  n/a      .000
02472>                         +     1.0 02: A13- MN           2. 59        .239 No_date   28: 02   34. 21  n/a      .000
02473>                         +     1.0 02: A12- MN           12. 29        .834 No_date   28: 01   25. 66  n/a      .000
02474>                         SUM=  1.0 01: MH108           161. 64      5. 450 No_date   28: 03   26. 58  n/a      .000
02475> R0002: C00377-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02476>       SAVE HYD                1.0 01: MH108          161. 64      5. 450 No_date   28: 03   26. 58  n/a      .000
02477>         fname : MH108. 0002
02478>         remark: Total Flows at MH108
02479> R0002: C00378-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02480>       ROUTE PIPE              ->    1.0 02: MH108          161. 64      5. 450 No_date   28: 03   26. 58  n/a      .000
02481> *     [ RDT=  1. 00] out <-       1.0 01: 108- 116          161. 64      5. 396 No_date   28: 04   26. 58  n/a      .000
02482>         [ L/ S/ n=  77. /  . 130/ . 013]
02483>         [ Vmax=  1. 987: Dmax=  1. 637]
02484>         [ Di n=  1. 80: Used=  1. 99]
02485> R0002: C00379-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02486>       ROUTE PIPE              ->    1.0 02: 108- 116          161. 64      5. 396 No_date   28: 04   26. 58  n/a      .000
02487> *     [ RDT=  1. 00] out <-       1.0 01: 116- corrig       161. 64      5. 363 No_date   28: 04   26. 58  n/a      .000
02488>         [ L/ S/ n=  80. /  . 130/ . 013]
02489>         [ Vmax=  1. 983: Dmax=  1. 631]
02490>         [ Di n=  1. 80: Used=  1. 99]
02491> R0002: C00380-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02492>       ADD HYD                 1.0 02: 116- corrig       161. 64      5. 363 No_date   28: 04   26. 58  n/a      .000
02493>                         +     1.0 02: Pond- Block       2. 94        .190 No_date   28: 01   24. 31  n/a      .000
02494>                         SUM=  1.0 01: Corrigan          164. 58      5. 522 No_date   28: 04   26. 54  n/a      .000
02495> R0002: C00381-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02496>       SAVE HYD                1.0 01: Corrigan          164. 58      5. 522 No_date   28: 04   26. 54  n/a      .000
02497>         fname : Corrigan. 0002
02498>         remark: HYD_COMMENT=[ "Total Flows at Corrigan Pond]
02499> R0002: C00382-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02500>       ROUTE RESERVOIR ->    1.0 02: Corrigan          164. 58      5. 522 No_date   28: 04   26. 54  n/a      .000
02501>                       out <=  1.0 01: Co- P            164. 58      4. 479 No_date   28: 12   26. 54  n/a      .000
02502>                     overflow <=  1.0 03: Co- P- OVF       .00        .000 No_date   0: 00     .00  n/a      .000
02503>         [ MxStoUsed=. 9246E+00  m3,  Tot Or Vol=. 0000E+00  m3,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02504> R0002: C00383-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02505>       ADD HYD                 1.0 02: Co- P- OVF         .00        .000 No_date   0: 00     .00  n/a      .000
02506>                         +     1.0 02: Co- P             164. 58      4. 479 No_date   28: 12   26. 54  n/a      .000
02507>                         +     1.0 02: N_TO            54837. 69     48. 869 No_date   28: 25   13. 08  n/a      .000
02508>                         +     1.0 02: MH105- JR          16. 59      3. 620 No_date   28: 06   26. 30  n/a      .000
02509>                         +     1.0 02: A8- MI- JR         .00        .000 No_date   0: 00     .00  n/a      .000
02510>                         +     1.0 02: A9- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02511>                         +     1.0 02: BS- MI             .00        .000 No_date   0: 00     .00  n/a      .000
02512>                         +     1.0 02: A11- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02513>                         +     1.0 02: A12- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02514>                         +     1.0 02: A13- MI            .00        .000 No_date   0: 00     .00  n/a      .000
02515>                         SUM=  1.0 01: corrig          55018. 86     49. 076 No_date   38: 24   13. 13  n/a      .000
02516> R0002: C00384-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02517>       SAVE HYD                1.0 01: corrig          55018. 86     49. 076 No_date   38: 24   13. 13  n/a      .000
02518>         fname : corrig. 0002
02519>         remark: Total Flows at Corrigan Pond
02520> ************************************************************************
02521> #     Corrigan Pond 1
02522> #     - Rating curve obtained from Barrhaven South MSS modeling
02523> #     - Tributary Drainage Area = MSS Pond 1 = 145 ha
02524> ************************************************************************
02525> #
02526> # Hydrograph from Corrigan Drain routed to Jockvale Road
02527> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
02528> #
02529> R0002: C00385-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02530>       ROUTE CHANNEL           ->    1.0 02: corrig          55018. 86     49. 076 No_date   38: 24   13. 13  n/a      .000
02531>         [ RDT=  1. 00] out <-       1.0 01: N_M             55018. 86     49. 073 No_date   38: 28   13. 13  n/a      .000
02532>         [ L/ S/ n=  580. /  . 445/ . 045]
02533>         [ Vmax=  1. 454: Dmax=  1. 223]
02534> ************************************************************************
02535> #     Catchment MILLS
02536> #     - To SWM Facility north of the Jock
02537> #     - Primarily residential development
02538> ************************************************************************
02539> R0002: C00386-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02540>       CONTINUOUS STANDHYD     1.0 01: MILLS             175. 99      7. 048 No_date   28: 08   22. 75  . 500    .000
02541>         [ XI M=. 38: TI M=. 38]
02542>         [ LOSS= 2 : CN= 74.0]
02543>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02544>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=1118. : MNI=. 013: SCI=    .0]
02545>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02546>         [ SMN= 36. 67: SMX=244. 49: SK=  .010]
02547> ************************************************************************
02548> #     Chapman Mills SWM Pond
02549> #     - Rating curve obtained from CCL hydraulic modeling
02550> ************************************************************************
02551> R0002: C00387-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02552>       ROUTE RESERVOIR ->    1.0 02: MLLS              175. 99      7. 048 No_date   28: 08   22. 75  n/a      .000
02553>                       out <=  1.0 01: MLL_P            175. 99      2. 401 No_date   28: 46   22. 75  n/a      .000
02554>                     overflow <=  1.0 03: MLL- OV          .00        .000 No_date   0: 00     .00  n/a      .000
02555>         [ MxStoUsed=. 1446E+01  m3,  Tot Or Vol=. 0000E+00  m3,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
02556> R0002: C00388-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02557>       ADD HYD                 1.0 02: N_M             55018. 86     49. 073 No_date   38: 28   13. 13  n/a      .000
02558>                         +     1.0 02: MLL- OV            .00        .000 No_date   0: 00     .00  n/a      .000
02559>                         +     1.0 02: MLL_P             175. 99      2. 401 No_date   28: 46   22. 75  n/a      .000
02560>                         SUM=  1.0 01: SN_M            55194. 85     49. 303 No_date   38: 26   13. 16  n/a      .000
02561> R0002: C00389-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02562>       SAVE HYD                1.0 01: SN_M            55194. 85     49. 303 No_date   38: 26   13. 16  n/a      .000
02563>         fname : SN_M. 0002
02564>         remark: Total Flows at Jockvale Road
02565> #
02566> # Hydrograph from Jockvale Road routed to Heart's Desire
02567> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
02568> #
02569> R0002: C00390-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02570>       ROUTE CHANNEL           ->    1.0 02: SN_M            55194. 85     49. 303 No_date   38: 26   13. 16  n/a      .000
02571>         [ RDT=  1. 00] out <-       1.0 01: N_DE            55194. 85     49. 262 No_date   38: 53   13. 16  n/a      .000
02572>         [ L/ S/ n=  1962. /  . 223/ . 045]
02573>         [ Vmax=  1. 144: Dmax=  1. 611]
02574> ************************************************************************
02575> #     Catchment DESIRE
02576> #     - To Jock River (north of the Jock)
02577> #     - Rural-estate subdivision (Heart's Desire Community)
02578> ************************************************************************
02579> R0002: C00391-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
02580>       CONTINUOUS STANDHYD     1.0 01: DESIRE            23. 78       . 936 No_date   28: 03   19. 26  . 423    .000
02581>         [ XI M=. 25: TI M=. 25]
02582>         [ LOSS= 2 : CN= 77.0]
02583>         [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02584>         [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=    .0]
02585>         [ IaRECmp=   4. 00: IaRECper=   4. 00]
02586>         [ SMN= 31. 15: SMX=207. 66: SK=  .010]
02587> ************************************************************************
02588>
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02619>              overflow <=      1. 0 03: JO- OVF              .00      .000 No_date    0:00      .00  n/a      .000
02620>        [MkStoked=-.3334E+01   m3,  TotOvfVol=-.0000E+00   m3,  N-Ovf=      0,  TotDurOvf=     0.hrs]
02621> R0002: C00396-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02622>      ADD HYD                1. 0 02: N_DE        55194. 85    49. 262 No_date    38: 53    13. 16  n/a      .000
02623>                         +     1. 0 02: DESTRE       23. 78      .936 No_date    28: 03    19. 26  n/a      .000
02624>                         +     1. 0 02: JO- OVF         .00      .000 No_date    0: 00       .00  n/a      .000
02625>                         +     1. 0 02: JOCK_P       257. 63     2. 560 No_date    29: 05    26. 85  n/a      .000
02626>                       SUM=    1. 0 01: SN_DE       55476. 26    49. 619 No_date    38: 49    13. 23  n/a      .000
02627> R0002: C00397-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02628>      SAVE HYD               1. 0 01: SN_DE       55476. 26    49. 619 No_date    38: 49    13. 23  n/a      .000
02629>        fname : SN_DE 0002
02630>        remark: Total Flows at Heart's Desire
02631> #
02632> # Hydrograph from Heart's Desire routed to Rideau River
02633> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
02634> #
02635> R0002: C00398-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02636>      ROUTE CHANNEL      ->     1. 0 02: SN_DE       55476. 26    49. 619 No_date    38: 49    13. 23  n/a      .000
02637>        [RDT= 1. 00]  out <-     1. 0 01: NI          55476. 26    49. 617 No_date    38: 54    13. 23  n/a      .000
02638>        [L/ S/ n=  563. / . 967/ . 045]
02639>        [Vmax=  1. 490: Dmax=  . 801]
02640> #*******************************************************************************
02641> #     Catchment S-2
02642> #     - To Jock River (north and south)
02643> #     - Undeveloped floodplain and river
02644> #*******************************************************************************
02645> R0002: C00399-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02646>      CONTINUOUS NASHYD      1. 0 01: S-2          102. 94     1. 373 No_date    28: 20    13. 01  . 286    .000
02647>        [CN= 72. 0:  N= 3. 00:  Tp=  . 40]
02648>        [IaREC= 4. 00:  SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
02649>        [InterEventTime=  12. 00]
02650> R0002: C00400-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02651>      ADD HYD                1. 0 02: NI          55476. 26    49. 617 No_date    38: 54    13. 23  n/a      .000
02652>                         +     1. 0 02: S-2          102. 94     1. 373 No_date    28: 20    13. 01  n/a      .000
02653>                       SUM=    1. 0 01: SN_NI       55579. 20    49. 715 No_date    38: 54    13. 23  n/a      .000
02654> R0002: C00401-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02655>      SAVE HYD               1. 0 01: SN_NI       55579. 20    49. 715 No_date    38: 54    13. 23  n/a      .000
02656>        fname : SN_NI 0002
02657>        remark: Total Flows at Rideau River
02658> ###############################################################################
02659>  ** END OF RUN :      4
02660>
02661> ***********************************************************************************************************
02662>
02663>
02664>
02665>
02666>
02667>  RUN#: COMMAND#
02668> R0005: C00001-------------------------------------------------------------------------------------------
02669>      START                  [ TZERO =      .00 hrs on        0]
02670>        [METOUT=   2      (1=imperial,  2=metric output)]
02671>        [NSTORM=   1 ]
02672>        [NRUN   = 0005 ]
02673> #*******************************************************************************
02674> #  SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
02675> #*******************************************************************************
02676> #  Project Name: [Jock River]       Project Number: [1474- 16]
02677> #  Date          : 04- 03- 2021
02678> #  Modeller      : [MM]
02679> #  Company       : JFSAi nc.
02680> #  License #     :  2549237
02681> #*******************************************************************************
02682> # CALIBRATION OF SUMMER MODEL PARAMETERS
02683> # USING CONTINUOUS SIMULATIONS
02684> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
02685> # Use data collected from May 1st to July 14, 2003
02686> # 2020- 11- 30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0. 1 instead of 0. 0001)
02687> # 2020- 12- 01 correct pond curve values
02688> # 2020- 12- 01 change W_CLAR_BRAZ_XLMP to 0. 55.  SLPI=0. 5){ (% (impervious slopes),  and LGI up to 700m
02689> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 2462 ( NHYDout=["N_TOT"] , NHYDin=["SN_TOT"]) from 0. 033 % (as per S
02690> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 5002 ( NHYDout=["N_WC"] , NHYDin=["SN_CE"]) from 0. 01 % (as per St
02691> # ------------------------------------------------------------------------------
02692> #
02693> R0005: C00002-------------------------------------------------------------------------------------------
02694>      READ STORM
02695>        Filename = storm 001
02696>        Comment  = Pluie SCS de 24 hres 1: 5 ans pour Ottawa CDA
02697>        [SDT= 10. 00: SDUR=  24. 00: PTOT=  57. 12]
02698> R0005: C00003-------------------------------------------------------------------------------------------
02699>      MODIFY STORM
02700>        [RFACT=  1. 00: TSHIFT= 960. 00 min]
02701>        [SDT= 10. 00: SDUR=  40. 00: PTOT=  57. 12]
02702> R0005: C00004-------------------------------------------------------------------------------------------
02703>      DEFAULT VALUES
02704>        Filename = T: \PROJ\ 1474- 16\ Design\ 20201026- QuantityControlAnalysis\ SWMHYMO_SMR- Model\ updated3\ CitiGate. DEF
02705>        ICASEdv  = 1 (read and print data)
02706>        FileTitle= File comment: [Based on various calibration exercises in Onta
02707>                   THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
02708>        Horton's infiltration equation parameters:
02709>        [Fo= 76. 20 mm/ hr]  [Fc=13. 20 mm/ hr]  [DCAY=  4. 14 /hr]  [F=  . 00 mm]
02710>        Parameters for PERVIOUS surfaces in STANDHYD
02711>        [IAmp=   4. 67 mm]  [LGP=50. 00 m]  [MNP=  . 250]
02712>        Parameters for IMPERVIOUS surfaces in STANDHYD
02713>        [IAmp=   1. 57 mm]  [CLI=  1. 50]    [MNI=  . 013]
02714>        Parameters used in NASHYD
02715>        [Ia=     4. 67 mm]  [N= 3. 00]
02716>        Average monthly Pan Evaporation data in      (mm)
02717>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
02718>     .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
02719>        Average monthly Potential Evapotranspiration in      (mm)
02720>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
02721>     .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
02722> R0005: C00005-------------------------------------------------------------------------------------------
02723>      COMPUTE API
02724>        [APIini= 50. 00:  APIkdy=  . 8500:  APIkdt= . 9989]
02725>        [APImax= 90. 83:  APIavg= 60. 09:  APImin= 44. 87]
02726> #
02727> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02728> # of 1. 32
02729> R0005: C00006-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02730>      CONTINUOUS NASHYD      1. 0 01: JR_HW        3680. 00     9. 398 No_date    37: 02    16. 41  . 287    .000
02731>        [CN= 64. 0:  N= 3. 00:  Tp=  7. 13]
02732>        [IaREC= 4. 00:  SM N= 57. 05:  SMX= 380. 32:  SK= . 010]
02733>        [InterEventTime=  12. 00]
02734> #
02735> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02736> # of 1. 32
02737> R0005: C00007-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02738>      CONTINUOUS NASHYD      1. 0 01: SW_13         971. 00     3. 405 No_date    32: 36    15. 29  . 268    .000
02739>        [CN= 61. 0:  N= 3. 00:  Tp=  3. 76]
02740>        [IaREC= 4. 00:  SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
02741>        [InterEventTime=  12. 00]
02742> #
02743> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02744> # of 1. 80
02745> R0005: C00008-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02746>      CONTINUOUS NASHYD      1. 0 01: JR_GWM       3074. 00     4. 682 No_date    39: 59    13. 23  . 232    .000
02747>        [CN= 55. 0:  N= 3. 00:  Tp=11. 33]
02748>        [IaREC= 4. 00:  SM N= 83. 24:  SMX= 554. 96:  SK= . 010]
02749>        [InterEventTime=  12. 00]
02750> R0005: C00009-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02751>      CONTINUOUS NASHYD      1. 0 01: JR_ASH       1781. 00     8. 521 No_date    32: 43    20. 12  . 352    .000
02752>        [CN= 72. 0:  N= 3. 00:  Tp=  3. 91]
02753>        [IaREC= 4. 00:  SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
02754>        [InterEventTime=  12. 00]
02755> R0005: C00010-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02756>      CONTINUOUS NASHYD      1. 0 01: SW_11         500. 00     4. 354 No_date    29: 22    17. 18  . 301    .000
02757>        [CN= 66. 0:  N= 3. 00:  Tp=  1. 24]
02758>        [IaREC= 4. 00:  SM N= 52. 62:  SMX= 350. 79:  SK= . 010]
02759>        [InterEventTime=  12. 00]
02760> #
02761> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02762> # of 1. 80
02763> R0005: C00011-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02764>      CONTINUOUS NASHYD      1. 0 01: NN_CK        1917. 00     6. 210 No_date    34: 31    17. 18  . 301    .000
02765>        [CN= 66. 0:  N= 3. 00:  Tp=  5. 29]
02766>        [IaREC= 4. 00:  SM N= 52. 62:  SMX= 350. 79:  SK= . 010]
02767>        [InterEventTime=  12. 00]
02768> #
02769> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02770> # of 1. 52
02771> R0005: C00012-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02772>      CONTINUOUS NASHYD      1. 0 01: SW_10        5666. 00    16. 924 No_date    38: 02    20. 12  . 352    .000
02773>        [CN= 72. 0:  N= 3. 00:  Tp=  8. 00]
02774>        [IaREC= 4. 00:  SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
02775>        [InterEventTime=  12. 00]
02776> #
02777> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02778> # of 1. 75
02779> R0005: C00013-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02780>      CONTINUOUS NASHYD      1. 0 01: KG_CK        8376. 00    16. 342 No_date    39: 59    17. 18  . 301    .000
02781>        [CN= 66. 0:  N= 3. 00:  Tp=11. 66]
02782>        [IaREC= 4. 00:  SM N= 52. 62:  SMX= 350. 79:  SK= . 010]
02783>        [InterEventTime=  12. 00]
02784> #
02785> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02786> # of 1. 68
02787> R0005: C00014-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02788>      CONTINUOUS NASHYD      1. 0 01: SW_9         1132. 00     6. 963 No_date    30: 55    19. 24  . 337    .000
02789>        [CN= 70. 0:  N= 3. 00:  Tp=  2. 51]
02790>        [IaREC= 4. 00:  SM N= 43. 07:  SMX= 287. 10:  SK= . 010]
02791>        [InterEventTime=  12. 00]
02792> #
02793> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02794> # of 1. 82
02795> R0005: C00015-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02796>      CONTINUOUS NASHYD      1. 0 01: NC_CK        4464. 00     8. 109 No_date    39: 59    15. 66  . 274    .000
02797>        [CN= 62. 0:  N= 3. 00:  Tp=11. 32]
02798>        [IaREC= 4. 00:  SM N= 61. 90:  SMX= 412. 66:  SK= . 010]
02799>        [InterEventTime=  12. 00]
02800> #
02801> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02802> # of 1. 80
02803> R0005: C00016-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02804>      CONTINUOUS NASHYD      1. 0 01: SW_8         131. 00     1. 298 No_date    28: 57    16. 03  . 281    .000
02805>        [CN= 63. 0:  N= 3. 00:  Tp=  . 90]
02806>        [IaREC= 4. 00:  SM N= 59. 42:  SMX= 396. 11:  SK= . 010]
02807>        [InterEventTime=  12. 00]
02808> #
02809> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02810> # of 1. 65
02811> R0005: C00017-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02812>      CONTINUOUS NASHYD      1. 0 01: HB_DR        3854. 00     9. 385 No_date    38: 41    17. 18  . 301    .000
02813>        [CN= 66. 0:  N= 3. 00:  Tp=  8. 42]
02814>        [IaREC= 4. 00:  SM N= 52. 62:  SMX= 350. 79:  SK= . 010]
02815>        [InterEventTime=  12. 00]
02816> #
02817> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02818> # of 1. 82
02819> R0005: C00018-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02820>      CONTINUOUS NASHYD      1. 0 01: SW_7         3197. 00     7. 027 No_date    36: 28    13. 89  . 243    .000
02821>        [CN= 57. 0:  N= 3. 00:  Tp=  6. 65]
02822>        [IaREC= 4. 00:  SM N= 76. 32:  SMX= 508. 81:  SK= . 010]
02823>        [InterEventTime=  12. 00]
02824> #
02825> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02826> # of 1. 75
02827> R0005: C00019-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02828>      CONTINUOUS NASHYD      1. 0 01: SW_6         165. 00      . 641 No_date    33: 06    17. 58  . 308    .000
02829>        [CN= 67. 0:  N= 3. 00:  Tp=  4. 18]
02830>        [IaREC= 4. 00:  SM N= 50. 55:  SMX= 336. 97:  SK= . 010]
02831>        [InterEventTime=  12. 00]
02832> #
02833> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02834> # of 1. 67
02835> R0005: C00020-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02836>      CONTINUOUS NASHYD      1. 0 01: VG_DR        1332. 00     4. 803 No_date    35: 19    20. 12  . 352    .000
02837>        [CN= 72. 0:  N= 3. 00:  Tp=  5. 95]
02838>        [IaREC= 4. 00:  SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
02839>        [InterEventTime=  12. 00]
02840> R0005: C00021-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02841>      CONTINUOUS NASHYD      1. 0 01: SW_5         224. 00     4. 100 No_date    28: 45    22. 97  . 402    .000
02842>        [CN= 77. 0:  N= 3. 00:  Tp=  . 75]
02843>        [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= . 010]
02844>        [InterEventTime=  12. 00]
02845> #
02846> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02847> # of 1. 20
02848> R0005: C00022-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02849>      CONTINUOUS NASHYD      1. 0 01: FL_CK        4945. 00    22. 837 No_date    33: 22    21. 04  . 368    .000
02850>        [CN= 74. 0:  N= 3. 00:  Tp=  4. 45]
02851>        [IaREC= 4. 00:  SM N= 36. 67:  SMX= 244. 49:  SK= . 010]
02852>        [InterEventTime=  12. 00]
02853> R0005: C00023-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02854>      CONTINUOUS NASHYD      1. 0 01: SW_5A2         20. 00      . 483 No_date    28: 36    25. 62  . 448    .000
02855>        [CN= 81. 0:  N= 3. 00:  Tp=  . 62]
02856>        [IaREC= 4. 00:  SM N= 25. 21:  SMX= 168. 09:  SK= . 010]
02857>        [InterEventTime=  12. 00]
02858> #
02859> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
02860> # of 1. 61
02861> R0005: C00024-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02862>      CONTINUOUS NASHYD      1. 0 01: SW_5AI       1412. 00     4. 646 No_date    37: 58    21. 98  . 385    .000
02863>        [CN= 75. 0:  N= 3. 00:  Tp=  8. 00]
02864>        [IaREC= 4. 00:  SM N= 33. 81:  SMX= 225. 43:  SK= . 010]
02865>        [InterEventTime=  12. 00]
02866> R0005: C00025-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02867>      CONTINUOUS NASHYD      1. 0 01: SW_4         585. 00     6. 688 No_date    29: 57    25. 62  . 448    .000
02868>        [CN= 81. 0:  N= 3. 00:  Tp=  1. 75]
02869>        [IaREC= 4. 00:  SM N= 25. 21:  SMX= 168. 09:  SK= . 010]
02870>        [InterEventTime=  12. 00]
02871> R0005: C00026-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02872>      CONTINUOUS NASHYD      1. 0 01: LM_CK        1021. 00     8. 861 No_date    30: 48    25. 07  . 439    .000
02873>        [CN= 80. 0:  N= 3. 00:  Tp=  2. 46]
02874>        [IaREC= 4. 00:  SM N= 26. 32:  SMX= 175. 50:  SK= . 010]
02875>        [InterEventTime=  12. 00]
02876> R0005: C00027-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02877>      CONTINUOUS NASHYD      1. 0 01: SW_2         177. 00     3. 240 No_date    28: 45    22. 97  . 402    .000
02878>        [CN= 77. 0:  N= 3. 00:  Tp=  . 75]
02879>        [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= . 010]
02880>        [InterEventTime=  12. 00]
02881> R0005: C00028-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02882>      CONTINUOUS NASHYD      1. 0 01: SM_DR        1122. 00     8. 165 No_date    31: 48    25. 62  . 448    .000
02883>        [CN= 81. 0:  N= 3. 00:  Tp=  3. 25]
02884>        [IaREC= 4. 00:  SM N= 25. 21:  SMX= 168. 09:  SK= . 010]
02885>        [InterEventTime=  12. 00]
02886> R0005: C00029-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02887>      CONTINUOUS NASHYD      1. 0 01: MD_DR        2737. 00    17. 859 No_date    31: 33    22. 47  . 393    .000
02888>        [CN= 76. 0:  N= 3. 00:  Tp=  3. 03]
02889>        [IaREC= 4. 00:  SM N= 32. 46:  SMX= 216. 39:  SK= . 010]
02890>        [InterEventTime=  12. 00]
02891> #
02892> # Routing hydrographs
02893> #
02894> # Starting with the addition of Jock River Headwater and Subwatershed 13
02895> #
02896> R0005: C00030-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02897>      ADD HYD                1. 0 02: JR_HW        3680. 00     9. 398 No_date    37: 02    16. 41  n/a      .000
02898>                         +     1. 0 02: SW_13         971. 00     3. 405 No_date    32: 36    15. 29  n/a      .000
02899>                       SUM=    1. 0 01: S_N13       4651. 00    11. 949 No_date    35: 33    16. 17  n/a      .000
02900> #
02901> # Sum of hydrographs from Node 13 routed to Node 13A
02902> # (Approximated cross- section - see cross- section 258)
02903> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
02904> #
02905> R0005: C00031-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02906>      ROUTE CHANNEL      ->     1. 0 02: S_N13        4651. 00    11. 949 No_date    35: 33    16. 17  n/a      .000
02907>        [RDT= 1. 00]  out <-     1. 0 01: N13A         4651. 00     9. 514 No_date    39: 57    16. 17  n/a      .000
02908>        [L/ S/ n= 9074. / . 022/ . 040]
02909>        [Vmax=  . 478: Dmax= 3. 020]
02910> #
02911> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
02912> #
02913> R0005: C00032-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02914>      ADD HYD                1. 0 02: N13A         4651. 00     9. 514 No_date    39: 57    16. 17  n/a      .000
02915>                         +     1. 0 02: JR_GWM       3074. 00     4. 682 No_date    39: 59    13. 23  n/a      .000
02916>                       SUM=    1. 0 01: SN13A        7725. 00    14. 196 No_date    39: 59    15. 00  n/a      .000
02917> #
02918> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
02919> #
02920> R0005: C00033-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02921>      ROUTE RESERVOIR    ->     1. 0 02: SN13A        7725. 00    14. 196 No_date    39: 59    15. 00  n/a      .000
02922>                       out <=    1. 0 01: RES_GM       7725. 00     3. 149 No_date    57: 25    15. 00  n/a      .000
02923>        [MkStoked=-. 6321E+02  m3]
02924> #
02925> R0005: C00034-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02926>      SAVE HYD               1. 0 01: RES_GM       7725. 00     3. 149 No_date    57: 25    15. 00  n/a      .000
02927>        fname : HI_RESGM
02928>        remark: Outflow from Res GM
02929> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
02930> # (Approximated cross- section - see cross- section 258)
02931> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
02932> R0005: C00035-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02933>      ROUTE CHANNEL      ->     1. 0 02: RES_GM       7725. 00     3. 149 No_date    57: 25    15. 00  n/a      .000
02934>        [RDT= 1. 00]  out <-     1. 0 01: N12          7725. 00     3. 137 No_date    60: 12    15. 00  n/a      .000
02935>        [L/ S/ n= 5926. / . 076/ . 040]
02936>        [Vmax=  . 527: Dmax= 1. 429]
02937> #
02938> # Addition of Subwatershed Jock River at Ashton to Node 12
02939> #
02940> R0005: C00036-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02941>      ADD HYD                1. 0 02: N12          7725. 00     3. 137 No_date    60: 12    15. 00  n/a      .000
02942>                         +     1. 0 02: JR_ASH       1781. 00     8. 521 No_date    32: 43    20. 12  n/a      .000
02943>                       SUM=    1. 0 01: S_N12        9506. 00    10. 498 No_date    32: 46    15. 96  n/a      .000
02944> R0005: C00037-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02945>      SAVE HYD               1. 0 01: S_N12        9506. 00    10. 498 No_date    32: 46    15. 96  n/a      .000
02946>        fname : H_SN12
02947>        remark: flow at S_N12 near Ashton
02948> #
02949> # Sum of hydrographs from Node 12 routed to Node 11
02950> # (Approximated cross- section - see cross- section 258)
02951> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
02952> #
02953> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
02954> #
02955> R0005: C00038-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02956>      ROUTE CHANNEL      ->     1. 0 02: S_N12        9506. 00    10. 498 No_date    32: 46    15. 96  n/a      .000
02957>        [RDT= 1. 00]  out <-     1. 0 01: Dam11        9506. 00    10. 383 No_date    33: 07    15. 96  n/a      .000
02958>        [L/ S/ n=  972. / . 054/ . 040]
02959>        [Vmax=  . 648: Dmax= 2. 406]
02960> #
02961> # Addition of Subwatershed 11 and No Name Creek to Node 11
02962> #
02963> R0005: C00039-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02964>      ADD HYD                1. 0 02: Dam11        9506. 00    10. 383 No_date    33: 07    15. 96  n/a      .000
02965>                         +     1. 0 02: SW_11         500. 00     4. 354 No_date    29: 22    17. 18  n/a      .000
02966>                         +     1. 0 02: NN_CK        1917. 00     6. 210 No_date    34: 31    17. 18  n/a      .000
02967>                       SUM=    1. 0 01: S_N11       11923. 00    17. 560 No_date    33: 09    16. 21  n/a      .000
02968> #
02969> # Sum of hydrographs from Node 11 routed to Node 10
02970> # Section 1
02971> #
02972> R0005: C00040-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02973>      ROUTE CHANNEL      ->     1. 0 02: S_N11       11923. 00    17. 560 No_date    33: 09    16. 21  n/a      .000
02974>        [RDT= 1. 00]  out <-     1. 0 01: N10          11923. 00    12. 006 No_date    38: 17    16. 21  n/a      .000
02975>        [L/ S/ n=14028. / . 157/ . 040]
02976>        [Vmax=  . 461: Dmax= 1. 087]
02977> #
02978> # Addition of Subwatershed 10 to Node 10
02979> #
02980> R0005: C00041-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02981>      ADD HYD                1. 0 02: N10          11923. 00    12. 006 No_date    38: 17    16. 21  n/a      .000
02982>                         +     1. 0 02: SW_10        5666. 00    16. 924 No_date    38: 02    20. 12  n/a      .000
02983>                       SUM=    1. 0 01: S_N10       17589. 00    28. 927 No_date    38: 09    17. 47  n/a      .000
02984> R0005: C00042-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02985>      SAVE HYD               1. 0 01: S_N10        17589. 00    28. 927 No_date    38: 09    17. 47  n/a      .000
02986>        fname : H_SN10
02987>        remark: flow at S_N10:  N10 + SW_10
02988> # Addition of Kings Creek to S_N10
02989> #
02990> R0005: C00043-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
02991>      ADD HYD                1. 0 02: S_N10        17589. 00    28. 927 No_date    38: 09    17. 47  n/a      .000
02992>                         +     1. 0 02: KG_CK        8376. 00    16. 342 No_date    39: 59    17. 18  n/a      .000
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02993>                    SUM=     1. 0 01: S_N10A      25965. 00   44. 722 No_date   39: 35   17. 37  n/a      .000
02994> #
02995> # Sum of hydrographs from Node 10 routed to Node 9
02996> # Section 2
02997> #
02998> R0005: C00044- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
02999>      ROUTE CHANNEL    ->     1. 0 02: S_N10A      25965. 00   44. 722 No_date   39: 35   17. 37  n/a      .000
03000>       [ RDT= 1. 00] out <-     1. 0 01: N9        25965. 00   43. 534 No_date   39: 59   17. 37  n/a      .000
03001>        [ L/ S/ n= 3982. / . 075/ . 040]
03002>        [ Vmx= . 664: Dmx= 1. 502]
03003> #
03004> # Addition of Subwatershed 9 and Nichols Creek to Node 9
03005> #
03006> R0005: C00045- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03007>      ADD HYD                1. 0 02: S_N9        31561. 00   53. 366 No_date   39: 59   17. 37  n/a      .000
03008>                        +     1. 0 02: SW_9         1132. 00    6. 963 No_date   30: 55   19. 24  n/a      .000
03009>                        +     1. 0 02: NC_CK        4464. 00    8. 109 No_date   39: 59   15. 66  n/a      .000
03010>                    SUM=     1. 0 01: S_N9        31561. 00   53. 366 No_date   39: 59   17. 20  n/a      .000
03011> #
03012> # Sum of hydrographs from Node 9 routed to Node 8
03013> # Section 3
03014> #
03015> R0005: C00046- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03016>      ROUTE CHANNEL    ->     1. 0 02: S_N9        31561. 00   53. 366 No_date   39: 59   17. 20  n/a      .000
03017>       [ RDT= 1. 00] out <-     1. 0 01: N8        31561. 00   49. 404 No_date   39: 59   17. 20  n/a      .000
03018>        [ L/ S/ n= 2269. / . 088/ . 045]
03019>        [ Vmx= . 370: Dmx= 1. 520]
03020> #
03021> # Addition of Subwatersheds 8 and Hobb's Drain to Node 8
03022> #
03023> R0005: C00047- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03024>      ADD HYD                1. 0 02: N8          31561. 00   49. 404 No_date   39: 59   17. 20  n/a      .000
03025>                        +     1. 0 02: SW_8         131. 00    1. 298 No_date   28: 57   16. 03  n/a      .000
03026>                        +     1. 0 02: HB_DR       3854. 00    9. 385 No_date   38: 41   17. 18  n/a      .000
03027>                    SUM=     1. 0 01: S_N8        35546. 00   58. 845 No_date   39: 59   17. 19  n/a      .000
03028> #
03029> # Sum of hydrographs from Node 8 routed to Node 7
03030> # Section 4
03031> #
03032> R0005: C00048- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03033>      ROUTE CHANNEL    ->     1. 0 02: S_N8        35546. 00   58. 845 No_date   39: 59   17. 19  n/a      .000
03034>       [ RDT= 1. 00] out <-     1. 0 01: N7        35546. 00   48. 127 No_date   45: 08   17. 19  n/a      .000
03035>        [ L/ S/ n= 3750. / . 053/ . 070]
03036>        [ Vmx= . 208: Dmx= 1. 855]
03037> #
03038> # Addition of Subwatershed 7 to Node 7
03039> #
03040> R0005: C00049- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03041>      ADD HYD                1. 0 02: N7          35546. 00   48. 127 No_date   45: 08   17. 19  n/a      .000
03042>                        +     1. 0 02: SW_7         3197. 00    7. 027 No_date   36: 28   13. 89  n/a      .000
03043>                    SUM=     1. 0 01: S_N7        38743. 00   51. 395 No_date   44: 14   16. 92  n/a      .000
03044> R0005: C00050- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03045>      SAVE HYD               1. 0 01: S_N7        38743. 00   51. 395 No_date   44: 14   16. 92  n/a      .000
03046>           fname : H_SN7
03047>           remark: flow at S_N7:  N7 + SW_7
03048> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
03049> # Storage area and volumes were estimated from available topo maps.
03050> # Release rate from fen was assumed to be controlled by the downstream
03051> # river cross-section for summer conditions.  It is was assumed that for up to
03052> # 0.75 m of water, the main channel of the river provided the storage.  Above
03053> # this depth, the wetland starts to significantly store water.
03054> #
03055> R0005: C00051- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03056>      ROUTE RESERVOIR  ->     1. 0 02: S_N7        38743. 00   51. 395 No_date   44: 14   16. 92  n/a      .000
03057>                        out <=     1. 0 01: RES_RF    38743. 00   27. 976 No_date   59: 12   16. 92  n/a      .000
03058>       [ MxStOlKed=. 1784E+03   m3]
03059> R0005: C00052- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03060>      SAVE HYD               1. 0 01: RES_RF      38743. 00   27. 976 No_date   59: 12   16. 92  n/a      .000
03061>           fname : H_ResRF
03062>           remark: outflow of Richmond Fen
03063> #
03064> # Sum of hydrographs from Node 7 routed to Node 6
03065> # Section 5
03066> #
03067> R0005: C00053- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03068>      ROUTE CHANNEL    ->     1. 0 02: RES_RF      38743. 00   27. 976 No_date   59: 12   16. 92  n/a      .000
03069>       [ RDT= 1. 00] out <-     1. 0 01: N6        38743. 00   27. 930 No_date   60: 29   16. 92  n/a      .000
03070>        [ L/ S/ n= 3056. / . 082/ . 025]
03071>        [ Vmx= . 460: Dmx= . 895]
03072> #
03073> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
03074> #
03075> R0005: C00054- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03076>      ADD HYD                1. 0 02: N6          38743. 00   27. 930 No_date   60: 29   16. 92  n/a      .000
03077>                        +     1. 0 02: SW_6         165. 00     . 641 No_date   33: 06   17. 58  n/a      .000
03078>                        +     1. 0 02: VG_DR       1332. 00    4. 803 No_date   35: 19   20. 12  n/a      .000
03079>                    SUM=     1. 0 01: S_N6        40240. 01   27. 944 No_date   60: 06   17. 03  n/a      .000
03080> #
03081> # Sum of hydrographs from Node 6 routed to Node 5
03082> # Section 6
03083> #
03084> R0005: C00055- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03085>      ROUTE CHANNEL    ->     1. 0 02: S_N6        40240. 01   27. 944 No_date   60: 06   17. 03  n/a      .000
03086>       [ RDT= 1. 00] out <-     1. 0 01: N5        40240. 01   27. 922 No_date   60: 57   17. 03  n/a      .000
03087>        [ L/ S/ n= 1852. / . 054/ . 035]
03088>        [ Vmx= . 397: Dmx= 1. 002]
03089> #
03090> # Addition of Subwatershed 5 and Flowing Creek to Node 5
03091> #
03092> R0005: C00056- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03093>      ADD HYD                1. 0 02: N5          40240. 01   27. 922 No_date   60: 57   17. 03  n/a      .000
03094>                        +     1. 0 02: SW_5         224. 00    4. 100 No_date   28: 45   22. 97  n/a      .000
03095>                        +     1. 0 02: FL_CK       4945. 00   22. 837 No_date   33: 22   21. 04  n/a      .000
03096>                    SUM=     1. 0 01: S_N5        45409. 01   43. 566 No_date   35: 28   17. 49  n/a      .000
03097> #
03098> # Sum of hydrographs from Node 5 routed to Node 5A
03099> # Section 7
03100> #
03101> R0005: C00057- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03102>      ROUTE CHANNEL    ->     1. 0 02: S_N5        45409. 01   43. 566 No_date   35: 28   17. 49  n/a      .000
03103>       [ RDT= 1. 00] out <-     1. 0 01: N5A       45409. 01   43. 490 No_date   35: 47   17. 49  n/a      .000
03104>        [ L/ S/ n=  556. / . 090/ . 040]
03105>        [ Vmx= . 465: Dmx= 1. 060]
03106> #
03107> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
03108> #
03109> R0005: C00058- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03110>      ADD HYD                1. 0 02: N5A         45409. 01   43. 490 No_date   35: 47   17. 49  n/a      .000
03111>                        +     1. 0 02: SW_5A2       20. 00     . 483 No_date   28: 36   25. 62  n/a      .000
03112>                        +     1. 0 02: SW_5A1      1412. 00    4. 646 No_date   37: 58   21. 98  n/a      .000
03113>                    SUM=     1. 0 01: S_N5A       46841. 01   47. 976 No_date   35: 58   17. 63  n/a      .000
03114> #
03115> # Sum of hydrographs from Node 5A routed to Node 4
03116> # Section 8
03117> #
03118> R0005: C00059- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03119>      ROUTE CHANNEL    ->     1. 0 02: S_N5A       46841. 01   47. 976 No_date   35: 58   17. 63  n/a      .000
03120>       [ RDT= 1. 00] out <-     1. 0 01: N4        46841. 01   46. 217 No_date   37: 26   17. 63  n/a      .000
03121>        [ L/ S/ n= 4630. / . 043/ . 035]
03122>        [ Vmx= . 756: Dmx= 3. 116]
03123> #
03124> # Addition of Subwatershed 4 and Leamy Creek to Node 4
03125> #
03126> R0005: C00060- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03127>      ADD HYD                1. 0 02: N4          46841. 01   46. 217 No_date   37: 26   17. 63  n/a      .000
03128>                        +     1. 0 02: SW_4         585. 00    6. 688 No_date   29: 57   25. 62  n/a      .000
03129>                        +     1. 0 02: LM_CK       1021. 00    8. 861 No_date   30: 48   25. 07  n/a      .000
03130>                    SUM=     1. 0 01: S_N4        48447. 00   50. 308 No_date   36: 47   17. 89  n/a      .000
03131> R0005: C00061- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03132>      SAVE HYD               1. 0 01: S_N4        48447. 00   50. 308 No_date   36: 47   17. 89  n/a      .000
03133>           fname : S_N4. 0005
03134>           remark: flow at S_N4
03135> #
03136> # Sum of hydrographs from Node 4 routed to Node 2
03137> # Section 9
03138> #
03139> R0005: C00062- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03140>      ROUTE CHANNEL    ->     1. 0 02: S_N4        48447. 00   50. 308 No_date   36: 47   17. 89  n/a      .000
03141>       [ RDT= 1. 00] out <-     1. 0 01: N2        48447. 00   50. 131 No_date   37: 08   17. 89  n/a      .000
03142>        [ L/ S/ n= 1667. / . 060/ . 040]
03143>        [ Vmx= . 781: Dmx= 3. 131]
03144> #
03145> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
03146> #
03147> R0005: C00063- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03148>      ADD HYD                1. 0 02: N2          48447. 00   50. 131 No_date   37: 08   17. 89  n/a      .000
03149>                        +     1. 0 02: SW_2         177. 00    3. 240 No_date   28: 45   22. 97  n/a      .000
03150>                        +     1. 0 02: SM_DR       1122. 00    8. 165 No_date   31: 48   25. 62  n/a      .000
03151>                        +     1. 0 02: MD_DR       2737. 00   17. 859 No_date   31: 33   22. 47  n/a      .000
03152>                    SUM=     1. 0 01: S_N2        52483. 00   67. 222 No_date   33: 17   18. 31  n/a      .000
03153> R0005: C00064- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03154>      SAVE HYD               1. 0 01: S_N2        52483. 00   67. 222 No_date   33: 17   18. 31  n/a      .000
03155>           fname : H_SN2
03156>           remark: flow at S_N2 Jock River Gauge at Moodie Dr.
03157> #
03158> # Sum of hydrographs from Node 2 routed to Node 1
03159> # Section 10
03160> #
03161> #*************************************************************************
03162> #
03163> # Hydrograph from Node 2 routed to Node 416
03164> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
03165> #
03166> R0005: C00065- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03167>      ROUTE CHANNEL    ->     1. 0 02: S_N2        52483. 00   67. 222 No_date   33: 17   18. 31  n/a      .000
03168>       [ RDT= 1. 00] out <-     1. 0 01: N_416     52483. 00   65. 664 No_date   34: 34   18. 31  n/a      .000
03169>        [ L/ S/ n= 2327. / . 050/ . 055]
03170>        [ Vmx= . 658: Dmx= 2. 660]
03171> #*************************************************************************
03172> #     Catchment SW1a
03173> #     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
03174> #     - Undeveloped agricultural land
03175> #*************************************************************************
03176> R0005: C00066- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03177>      CONTINUOUS NASHYD      1. 0 01: SW_1a        536. 42     3. 012 No_date   31: 18   19. 00  . 333    .000
03178>        [ CN= 72. 0: N= 3. 00: Tp= 2. 79]
03179>        [ IaREC= 4. 00: SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
03180>        [ InterEventTime=  12. 00]
03181> R0005: C00067- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03182>      CONTINUOUS NASHYD      1. 0 01: S- 1- Okeefe    44. 93      . 602 No_date   29: 08   21. 69  . 380    .000
03183>        [ CN= 77. 0: N= 3. 00: Tp= 1. 05]
03184>        [ IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SK= . 010]
03185>        [ InterEventTime=  12. 00]
03186> R0005: C00068- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03187>      ADD HYD                1. 0 02: N_416       52483. 00   65. 664 No_date   34: 34   18. 31  n/a      .000
03188>                        +     1. 0 02: SW_1a        536. 42     3. 012 No_date   31: 18   19. 00  n/a      .000
03189>                        +     1. 0 02: S- 1- Okeefe    44. 93      . 602 No_date   29: 08   21. 69  n/a      .000
03190>                    SUM=     1. 0 01: SN_416      53064. 36   67. 933 No_date   34: 06   18. 32  n/a      .000
03191> R0005: C00069- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03192>      SAVE HYD               1. 0 01: SN_416      53064. 36   67. 933 No_date   34: 06   18. 32  n/a      .000
03193>           fname : SN_416. 0005
03194>           remark: Total Flows at Highway 416
03195> #
03196> # Hydrograph from Node 416 routed to Node at Okeefe drain
03197> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
03198> #
03199> R0005: C00070- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03200>      ROUTE CHANNEL    ->     1. 0 02: SN_416      53064. 36   67. 933 No_date   34: 06   18. 32  n/a      .000
03201>       [ RDT= 1. 00] out <-     1. 0 01: N_OK        53064. 36   67. 890 No_date   34: 06   18. 32  n/a      .000
03202>        [ L/ S/ n=  497. / . 302/ . 055]
03203>        [ Vmx= 1. 355: Dmx= 2. 252]
03204> #*************************************************************************
03205> #     Catchment OKEEFE
03206> #     - To O'Keefe drain (north of the Jock)
03207> #     - Developed with assumed 43% imp.
03208> #     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
03209> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
03210> #*************************************************************************
03211> R0005: C00071- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03212>      CONTINUOUS NASHYD      1. 0 01: O- 1         63. 72      . 514 No_date   28: 59   13. 88  n/a      .000
03213>        [ CN= 61. 0: N= 3. 00: Tp=  . 90]
03214>        [ IaREC= 4. 00: SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
03215>        [ InterEventTime=  12. 00]
03216> R0005: C00072- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03217>      ROUTE CHANNEL    ->     1. 0 02: O- 1         63. 72      . 514 No_date   28: 59   13. 88  n/a      .000
03218>       [ RDT= 1. 00] out <-     1. 0 01: O- 1R        63. 72      . 470 No_date   29: 19   13. 88  n/a      .000
03219>        [ L/ S/ n=  960. / . 630/ . 043]
03220>        [ Vmx= . 682: Dmx=  . 283]
03221> R0005: C00073- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03222>      CONTINUOUS NASHYD      1. 0 01: O- 2         28. 61      . 183 No_date   29: 14   12. 96  . 227    .000
03223>        [ CN= 57. 0: N= 3. 00: Tp= 1. 10]
03224>        [ IaREC= 4. 00: SM N= 76. 32:  SMX= 508. 81:  SK= . 010]
03225>        [ InterEventTime=  12. 00]
03226> R0005: C00074- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03227>      CONTINUOUS NASHYD      1. 0 01: O- 4         46. 94      . 222 No_date   29: 01    9. 87  . 173    .000
03228>        [ CN= 49. 0: N= 3. 00: Tp=  . 90]
03229>        [ IaREC= 4. 00: SM N= 104. 59:  SMX= 697. 25:  SK= . 010]
03230>        [ InterEventTime=  12. 00]
03231> R0005: C00075- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03232>      ADD HYD                1. 0 02: O- 1R        63. 72      . 470 No_date   29: 19   13. 88  n/a      .000
03233>                        +     1. 0 02: O- 2         28. 61      . 183 No_date   29: 14   12. 96  n/a      .000
03234>                        +     1. 0 02: O- 4         46. 94      . 222 No_date   29: 01    9. 87  n/a      .000
03235>                    SUM=     1. 0 01: OKF- N      139. 27      . 867 No_date   29: 14   12. 34  n/a      .000
03236> R0005: C00076- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03237>      ROUTE CHANNEL    ->     1. 0 02: OKF- N      139. 27      . 867 No_date   29: 14   12. 34  n/a      .000
03238>       [ RDT= 1. 00] out <-     1. 0 01: OKF- NR     139. 27      . 866 No_date   29: 17   12. 34  n/a      .000
03239>        [ L/ S/ n=  210. / . 810/ . 041]
03240>        [ Vmx= . 853: Dmx=  . 550]
03241> R0005: C00077- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03242>      CONTINUOUS NASHYD      1. 0 01: O- 6         16. 46      . 074 No_date   28: 46    8. 71  . 152    .000
03243>        [ CN= 43. 0: N= 3. 00: Tp=  . 70]
03244>        [ IaREC= 4. 00: SM N= 134. 47:  SMX= 896. 47:  SK= . 010]
03245>        [ InterEventTime=  12. 00]
03246> R0005: C00078- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03247>      CONTINUOUS STANDHYD    1. 0 01: O- 3         39. 67      . 605 No_date   28: 25   15. 80  . 277    .000
03248>        [ XIMP= . 15: TIMP= . 30]
03249>        [ LOSS= 2 : CN= 50. 0]
03250>        [ Pervious      area:  IAper= 4. 67: SLPP=  . 32: LGP=  440. : MNP= . 035: SCP=    . 0]
03251>        [ Impervious    area:  IAimp= 1. 57: SLPI=  . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
03252>        [ IaRECmp=    4. 00: IaRECper=    4. 00]
03253>        [ SM N= 99. 77:  SMX= 665. 12:  SK=  . 010]
03254> R0005: C00079- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03255>      CONTINUOUS STANDHYD    1. 0 01: O- 5         60. 63     1. 453 No_date   28: 11   17. 75  . 311    .000
03256>        [ XIMP= . 13: TIMP= . 26]
03257>        [ LOSS= 2 : CN= 61. 0]
03258>        [ Pervious      area:  IAper= 4. 67: SLPP= 1. 38: LGP=  550. : MNP= . 035: SCP=    . 0]
03259>        [ Impervious    area:  IAimp= 1. 57: SLPI= 1. 38: LGI= 1450. : MNI= . 013: SCI=    . 0]
03260>        [ IaRECmp=    4. 00: IaRECper=    4. 00]
03261>        [ SM N= 64. 50:  SMX= 430. 01:  SK=  . 010]
03262> R0005: C00080- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03263>      ADD HYD                1. 0 02: OKF- NR     139. 27      . 866 No_date   29: 17   12. 34  n/a      .000
03264>                        +     1. 0 02: O- 3         39. 67      . 605 No_date   28: 25   15. 80  n/a      .000
03265>                        +     1. 0 02: O- 5         60. 63     1. 453 No_date   28: 11   17. 75  n/a      .000
03266>                        +     1. 0 02: O- 6         16. 46      . 074 No_date   28: 46    8. 71  n/a      .000
03267>                    SUM=     1. 0 01: PT1         256. 03     2. 312 No_date   28: 24   13. 92  n/a      .000
03268> R0005: C00081- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03269>      CONTINUOUS NASHYD      1. 0 01: O- 7          5. 28      . 041 No_date   28: 37   11. 36  . 199    .000
03270>        [ CN= 54. 0: N= 3. 00: Tp=  . 60]
03271>        [ IaREC= 4. 00: SM N= 87. 01:  SMX= 580. 07:  SK= . 010]
03272>        [ InterEventTime=  12. 00]
03273> R0005: C00082- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03274>      ADD HYD                1. 0 02: PT1         256. 03     2. 312 No_date   28: 24   13. 92  n/a      .000
03275>                        +     1. 0 02: O- 7          5. 28      . 041 No_date   28: 37   11. 36  n/a      .000
03276>                    SUM=     1. 0 01: FF          261. 31     2. 351 No_date   28: 25   13. 87  n/a      .000
03277> R0005: C00083- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03278>      ROUTE CHANNEL    ->     1. 0 02: FF          261. 31     2. 351 No_date   28: 25   13. 87  n/a      .000
03279>       [ RDT= 1. 00] out <-     1. 0 01: DRAIN1      261. 31     2. 298 No_date   28: 31   13. 87  n/a      .000
03280>        [ L/ S/ n=  302. / 1. 000/ . 035]
03281>        [ Vmx= . 817: Dmx=  . 624]
03282> R0005: C00084- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03283>      CONTINUOUS NASHYD      1. 0 01: DI            1. 17      . 044 No_date   28: 12   23. 49  . 411    .000
03284>        [ CN= 84. 0: N= 3. 00: Tp=  . 28]
03285>        [ IaREC= 4. 00: SM N= 21. 09:  SMX= 140. 62:  SK= . 010]
03286>        [ InterEventTime=  12. 00]
03287> R0005: C00085- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03288>      CONTINUOUS STANDHYD    1. 0 01: AI            2. 50      . 337 No_date   28: 01   44. 03  . 771    .000
03289>        [ XIMP= . 68: TIMP= . 85]
03290>        [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
03291>        [ Pervious      area:  IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
03292>        [ Impervious    area:  IAimp= 1. 57: SLPI=  . 50: LGI=  224. : MNI= . 013: SCI=    . 0]
03293>        [ IaRECmp=    4. 00: IaRECper=    4. 00]
03294> R0005: C00086- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03295>      ROUTE RESERVOIR  ->     1. 0 02: AI            2. 50      . 337 No_date   28: 01   44. 03  n/a      .000
03296>                        out <=     1. 0 01: AI- STR      2. 50      . 076 No_date   28: 28   44. 03  n/a      .000
03297>                        overflow <=     1. 0 03: AI- OVF       . 00      . 000 No_date   0: 00    . 00  n/a      .000
03298>       [ MxStOlKed=. 5227E- 01   m3,  Tot Ovf Vol= . 0000E+ 00   m3,  N Ovf=     0,  Tot Dur Ovf=     0. hrs]
03299> R0005: C00087- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03300>      CONTINUOUS STANDHYD    1. 0 01: ST- 2          . 59      . 062 No_date   28: 00   33. 25  . 582    .000
03301>        [ XIMP= . 46: TIMP= . 57]
03302>        [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
03303>        [ Pervious      area:  IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
03304>        [ Impervious    area:  IAimp= 1. 57: SLPI=  . 50: LGI=  109. : MNI= . 013: SCI=    . 0]
03305>        [ IaRECmp=    4. 00: IaRECper=    4. 00]
03306> R0005: C00088- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03307>      ROUTE RESERVOIR  ->     1. 0 02: AI2           . 59      . 062 No_date   28: 00   33. 25  n/a      .000
03308>                        out <=     1. 0 01: ST2STR       . 59      . 052 No_date   28: 03   33. 25  n/a      .000
03309>                        overflow <=     1. 0 03: ST2OVF       . 00      . 000 No_date   0: 00    . 00  n/a      .000
03310>       [ MxStOlKed=. 1200E- 02   m3,  Tot Ovf Vol= . 0000E+ 00   m3,  N Ovf=     0,  Tot Dur Ovf=     0. hrs]
03311> R0005: C00089- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03312>      CONTINUOUS NASHYD      1. 0 01: O- 8         60. 55      . 658 No_date   29: 05   18. 08  . 317    .000
03313>        [ CN= 69. 0: N= 3. 00: Tp= 1. 00]
03314>        [ IaREC= 4. 00: SM N= 44. 82:  SMX= 298. 82:  SK= . 010]
03315>        [ InterEventTime=  12. 00]
03316> R0005: C00090- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03317>      ROUTE PIPE       ->     1. 0 02: O- 8         60. 55      . 658 No_date   29: 05   18. 08  n/a      .000
03318>       [ RDT= 1. 00] out <-     1. 0 01: OKPIPE      60. 55      . 654 No_date   29: 09   18. 08  n/a      .000
03319>        [ L/ S/ n=  335. / . 100/ . 013]
03320>        [ Vmx= . 991: Dmx=  . 368]
03321>        [ HGT= 1. 20: WDTH= 1. 80]
03322> R0005: C00091- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03323>      ADD HYD                1. 0 02: DRAIN1      261. 31     2. 298 No_date   28: 31   13. 87  n/a      .000
03324>                        +     1. 0 02: DI            1. 17      . 044 No_date   28: 12   23. 49  n/a      .000
03325>                        +     1. 0 02: ST- STR       2. 50      . 076 No_date   28: 28   44. 03  n/a      .000
03326>                        +     1. 0 02: AI- OVF        . 00      . 000 No_date   0: 00    . 00  n/a      .000
03327>                        +     1. 0 02: ST2STR        . 59      . 052 No_date   28: 03   33. 25  n/a      .000
03328>                        +     1. 0 02: ST2OVF        . 00      . 000 No_date   0: 00    . 00  n/a      .000
03329>                        +     1. 0 02: OKPIPE      60. 55      . 654 No_date   29: 09   18. 08  n/a      .000
03330>                    SUM=     1. 0 01: ST2- 1N     326. 12     2. 907 No_date   28: 39   14. 95  n/a      .000
03331> R0005: C00092- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03332>      CONTINUOUS STANDHYD    1. 0 01: A7            3. 51      . 460 No_date   28: 02   44. 03  . 771    .000
03333>        [ XIMP= . 68: TIMP= . 85]
03334>        [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
03335>        [ Pervious      area:  IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
03336>        [ Impervious    area:  IAimp= 1. 57: SLPI=  . 50: LGI=  265. : MNI= . 013: SCI=    . 0]
03337>        [ IaRECmp=    4. 00: IaRECper=    4. 00]
03338> R0005: C00093- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03339>      ROUTE RESERVOIR  ->     1. 0 02: A7            3. 51      . 460 No_date   28: 02   44. 03  n/a      .000
03340>                        out <=     1. 0 01: A7- STR       3. 51      . 108 No_date   28: 29   44. 03  n/a      .000
03341>                        overflow <=     1. 0 03: A7- OVF       . 00      . 000 No_date   0: 00    . 00  n/a      .000
03342>       [ MxStOlKed=. 7349E- 01   m3,  Tot Ovf Vol= . 0000E+ 00   m3,  N Ovf=     0,  Tot Dur Ovf=     0. hrs]
03343> R0005: C00094- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03344>      CONTINUOUS STANDHYD    1. 0 01: ST- 3          . 71      . 073 No_date   28: 00   33. 25  . 582    .000
03345>        [ XIMP= . 46: TIMP= . 57]
03346>        [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
03347>        [ Pervious      area:  IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
03348>        [ Impervious    area:  IAimp= 1. 57: SLPI=  . 50: LGI=  119. : MNI= . 013: SCI=    . 0]
03349>        [ IaRECmp=    4. 00: IaRECper=    4. 00]
03350> R0005: C00095- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03351>      ROUTE RESERVOIR  ->     1. 0 02: ST- 3          . 71      . 073 No_date   28: 00   33. 25  n/a      .000
03352>                        out <=     1. 0 01: ST3STR        . 71      . 063 No_date   28: 03   33. 25  n/a      .000
03353>                        overflow <=     1. 0 03: ST3OVF       . 00      . 000 No_date   0: 00    . 00  n/a      .000
03354>       [ MxStOlKed=. 1200E- 02   m3,  Tot Ovf Vol= . 0000E+ 00   m3,  N Ovf=     0,  Tot Dur Ovf=     0. hrs]
03355> R0005: C00096- ---------- DTmin- ID: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - ---- DWFcms
03356>      ADD HYD                1. 0 02: ST2- 1N     326. 12     2. 907 No_date   28: 39   14. 95  n/a      .000
03357>                        +     1. 0 02: A7- STR       3. 51      . 108 No_date   28: 29   44. 03  n/a      .000
03358>                        +     1. 0
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03367> R0005: C00098 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03368>      CONTINUOUS NASHYD          1.0 01: D2              2.28       .035 No_date   29:05   23.49 .411      .000
03369>        [ CN= 84.0: N= 3.00: Tp=  .99]
03370>        [ IaREC= 4.00: SM N= 21.09: SMX= 140.62: SK= .010]
03371>        [ InterEvent Time=  12.00]
03372> R0005: C00099 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03373>      CONTINUOUS STANDHYD        1.0 01: AI7            12.04      1.379 No_date   28:04   44.03 .771      .000
03374>        [ XI M%= 68: TIMP= 85]
03375>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03376>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03377>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI= 491.: MNI=.013: SCI=   .0]
03378>        [ IaREC mp=   4.00: IaRECper=   4.00]
03379> R0005: C00100 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03380>      ROUTE RESERVOIR -->        1.0 02: AI7            12.04      1.379 No_date   28:04   44.03  n/a      .000
03381>                         out <=     1.0 01: AI7STR        12.04       .353 No_date   28:36   44.03  n/a      .000
03382>                    overflow <=     1.0 03: AI7OVF         .00       .000 No_date   0:00     .00  n/a      .000
03383>        {Mx St ol ked=.2492E+00   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03384> R0005: C00101 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03385>      CONTINUOUS STANDHYD        1.0 01: ST-4            .35       .038 No_date   28:00   33.25 .582      .000
03386>        [ XI M%= 46: TIMP= 57]
03387>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03388>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03389>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI=  84.: MNI=.013: SCI=   .0]
03390>        [ IaREC mp=   4.00: IaRECper=   4.00]
03391> R0005: C00102 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03392>      ROUTE RESERVOIR -->        1.0 02: ST-4            .35       .038 No_date   28:00   33.25  n/a      .000
03393>                         out <=     1.0 01: ST4STR        .35       .031 No_date   28:03   33.25  n/a      .000
03394>                    overflow <=     1.0 03: ST4OVF         .00       .000 No_date   0:00     .00  n/a      .000
03395>        {Mx St ol ked=.1040E-02   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03396> R0005: C00103 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03397>      CONTINUOUS STANDHYD        1.0 01: AI8            5.30       .671 No_date   28:02   44.03 .771      .000
03398>        [ XI M%= 68: TIMP= 85]
03399>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03400>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03401>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI= 326.: MNI=.013: SCI=   .0]
03402>        [ IaREC mp=   4.00: IaRECper=   4.00]
03403> R0005: C00104 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03404>      ROUTE RESERVOIR -->        1.0 02: AI8            5.30       .671 No_date   28:02   44.03  n/a      .000
03405>                         out <=     1.0 01: AI8STR        5.30       .160 No_date   28:31   44.03  n/a      .000
03406>                    overflow <=     1.0 03: AI8OVF         .00       .000 No_date   0:00     .00  n/a      .000
03407>        {Mx St ol ked=.1108E+00   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03408> R0005: C00105 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03409>      ADD HYD                    1.0 02: DRAIN2        330.34      2.842 No_date   29:04   15.30  n/a      .000
03410>                         +          1.0 02: D2              2.28       .035 No_date   29:05   23.49  n/a      .000
03411>                         +          1.0 02: AI7STR        12.04       .353 No_date   28:36   44.03  n/a      .000
03412>                         +          1.0 02: AI7OVF         .00       .000 No_date   0:00     .00  n/a      .000
03413>                         +          1.0 02: ST4STR        .35       .031 No_date   28:03   33.25  n/a      .000
03414>                         +          1.0 02: ST4OVF         .00       .000 No_date   0:00     .00  n/a      .000
03415>                         +          1.0 02: AI8STR        5.30       .160 No_date   28:31   44.03  n/a      .000
03416>                         +          1.0 02: AI8OVF         .00       .000 No_date   0:00     .00  n/a      .000
03417>                       SUM=         1.0 01: PT3ST4        350.31     3.317 No_date   28:57   16.79  n/a      .000
03418> R0005: C00106 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03419>      ROUTE CHANNEL      -->        1.0 02: PT3ST4        350.31     3.317 No_date   28:57   16.79  n/a      .000
03420>        [ RDT= 1.00] out <-        1.0 01: DRAIN3        350.31     3.191 No_date   29:19   16.79  n/a      .000
03421>        [ L/ S/ n=  525./  .230/ .043]
03422>        [ Vmx=   .635: Dmx=   .979]
03423> R0005: C00107 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03424>      CONTINUOUS NASHYD          1.0 01: D3              2.51       .055 No_date   28:45   25.92 .454      .000
03425>        [ CN= 86.0: N= 3.00: Tp=  .73]
03426>        [ IaREC= 4.00: SM N= 17.43: SMX= 116.21: SK= .010]
03427>        [ InterEvent Time=  12.00]
03428> R0005: C00108 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03429>      CONTINUOUS STANDHYD        1.0 01: CI             3.41       .450 No_date   28:01   44.03 .771      .000
03430>        [ XI M%= 68: TIMP= 85]
03431>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03432>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03433>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI= 261.: MNI=.013: SCI=   .0]
03434>        [ IaREC mp=   4.00: IaRECper=   4.00]
03435> R0005: C00109 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03436>      ROUTE RESERVOIR -->        1.0 02: CI             3.41       .450 No_date   28:01   44.03  n/a      .000
03437>                         out <=     1.0 01: CI-STR        3.41       .104 No_date   28:29   44.03  n/a      .000
03438>                    overflow <=     1.0 03: CI-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03439>        {Mx St ol ked=.7123E-01   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03440> R0005: C00110 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03441>      CONTINUOUS STANDHYD        1.0 01: ST-5            .45       .048 No_date   28:00   33.25 .582      .000
03442>        [ XI M%= 46: TIMP= 57]
03443>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03444>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03445>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI=  95.: MNI=.013: SCI=   .0]
03446>        [ IaREC mp=   4.00: IaRECper=   4.00]
03447> R0005: C00111 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03448>      ROUTE RESERVOIR -->        1.0 02: ST-5            .45       .048 No_date   28:00   33.25  n/a      .000
03449>                         out <=     1.0 01: ST5STR        .45       .040 No_date   28:03   33.25  n/a      .000
03450>                    overflow <=     1.0 03: ST5OVF         .00       .000 No_date   0:00     .00  n/a      .000
03451>        {Mx St ol ked=.1108E-02   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03452> R0005: C00112 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03453>      ADD HYD                    1.0 02: DRAIN3        350.31     3.191 No_date   29:19   16.79  n/a      .000
03454>                         +          1.0 02: D3              2.51       .055 No_date   28:45   25.92  n/a      .000
03455>                         +          1.0 02: CI-STR        3.41       .104 No_date   28:29   44.03  n/a      .000
03456>                         +          1.0 02: CI-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03457>                         +          1.0 02: ST5STR        .45       .040 No_date   28:03   33.25  n/a      .000
03458>                         +          1.0 02: ST5OVF         .00       .000 No_date   0:00     .00  n/a      .000
03459>                       SUM=         1.0 01: ST5-E         356.68     3.312 No_date   29:13   17.14  n/a      .000
03460> R0005: C00113 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03461>      CONTINUOUS STANDHYD        1.0 01: STRAND          7.59       .640 No_date   28:12   42.86 .750      .000
03462>        [ XI M%= 64: TIMP= 85]
03463>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03464>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  40.: MNP=.250: SCP=   .0]
03465>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI=1230.: MNI=.013: SCI=   .0]
03466>        [ IaREC mp=   4.00: IaRECper=   4.00]
03467> R0005: C00114 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03468>      ROUTE RESERVOIR -->        1.0 02: STRAND          7.59       .640 No_date   28:12   42.86  n/a      .000
03469>                         out <=     1.0 01: S-POND        7.59       .048 No_date   29:55   42.86  n/a      .000
03470>                    overflow <=     1.0 03: S-OVF          .00       .000 No_date   0:00     .00  n/a      .000
03471>        {Mx St ol ked=.2288E+00   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03472> R0005: C00115 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03473>      ADD HYD                    1.0 02: ST5-E         356.68     3.312 No_date   29:13   17.14  n/a      .000
03474>                         +          1.0 02: S-POND        7.59       .048 No_date   29:55   42.86  n/a      .000
03475>                         +          1.0 02: S-OVF          .00       .000 No_date   0:00     .00  n/a      .000
03476>                       SUM=         1.0 01: SSAOUT        364.27     3.358 No_date   29:13   17.68  n/a      .000
03477> R0005: C00116 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03478>      SAVE HYD                   1.0 01: SSAOUT        364.27     3.358 No_date   29:13   17.68  n/a      .000
03479>        fname : SSAOUT 0005
03480>        remark: SSAOUT
03481> R0005: C00117 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03482>      CONTINUOUS STANDHYD        1.0 01: Area-A          66.75      5.433 No_date   28:11   42.06 .736      .000
03483>        [ XI M%= 64: TIMP= 80]
03484>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03485>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03486>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI=1155.: MNI=.013: SCI=   .0]
03487>        [ IaREC mp=   4.00: IaRECper=   4.00]
03488> R0005: C00118 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03489>      SAVE HYD                   1.0 01: Area-A          66.75      5.433 No_date   28:11   42.06  n/a      .000
03490>        fname : Area-A 0005
03491>        remark: SWMF-A Inflow
03492> R0005: C00119 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03493>      ROUTE RESERVOIR -->        1.0 02: Area-A          66.75      5.433 No_date   28:11   42.06  n/a      .000
03494>                         out <=     1.0 01: SWMF-A        66.75       .298 No_date   30:20   42.06  n/a      .000
03495>                    overflow <=     1.0 03: SWMOV          .00       .000 No_date   0:00     .00  n/a      .000
03496>        {Mx St ol ked=.2106E+01   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03497> R0005: C00120 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03498>      SAVE HYD                   1.0 01: SWMF-A          66.75       .298 No_date   30:20   42.06  n/a      .000
03499>        fname : SWMF-A 0005
03500>        remark: SWMF-A Outflow
03501> R0005: C00121 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03502>      ADD HYD                    1.0 02: SSAOUT        364.27     3.358 No_date   29:13   17.68  n/a      .000
03503>                         +          1.0 02: SWMF-A        66.75       .298 No_date   30:20   42.06  n/a      .000
03504>                         +          1.0 02: SWMOV          .00       .000 No_date   0:00     .00  n/a      .000
03505>                       SUM=         1.0 01: PT4ST5        431.02     3.613 No_date   29:19   21.45  n/a      .000
03506> R0005: C00122 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03507>      CONTINUOUS STANDHYD        1.0 01: C6              1.87       .260 No_date   28:01   44.03 .771      .000
03508>        [ XI M%= 68: TIMP= 85]
03509>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03510>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03511>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI= 193.: MNI=.013: SCI=   .0]
03512>        [ IaREC mp=   4.00: IaRECper=   4.00]
03513> R0005: C00123 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03514>      ROUTE RESERVOIR -->        1.0 02: C6              1.87       .260 No_date   28:01   44.03  n/a      .000
03515>                         out <=     1.0 01: C6-STR        1.87       .058 No_date   28:26   44.03  n/a      .000
03516>                    overflow <=     1.0 03: C6-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03517>        {Mx St ol ked=.3924E-01   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03518> R0005: C00124 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03519>      CONTINUOUS STANDHYD        1.0 01: C7              1.62       .227 No_date   28:01   44.03 .771      .000
03520>        [ XI M%= 68: TIMP= 85]
03521>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03522>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03523>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI= 180.: MNI=.013: SCI=   .0]
03524>        [ IaREC mp=   4.00: IaRECper=   4.00]
03525> R0005: C00125 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03526>      ROUTE RESERVOIR -->        1.0 02: C7              1.62       .227 No_date   28:01   44.03  n/a      .000
03527>                         out <=     1.0 01: C7-STR        1.62       .050 No_date   28:26   44.03  n/a      .000
03528>                    overflow <=     1.0 03: C7-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03529>        {Mx St ol ked=.3391E-01   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03530> R0005: C00126 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03531>      CONTINUOUS STANDHYD        1.0 01: ST-6            .41       .044 No_date   28:00   33.25 .582      .000
03532>        [ XI M%= 46: TIMP= 57]
03533>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03534>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  50.: MNP=.250: SCP=   .0]
03535>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI=  91.: MNI=.013: SCI=   .0]
03536>        [ IaREC mp=   4.00: IaRECper=   4.00]
03537> R0005: C00127 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03538>      ROUTE RESERVOIR -->        1.0 02: ST-6            .41       .044 No_date   28:00   33.25  n/a      .000
03539>                         out <=     1.0 01: ST6STR        .41       .036 No_date   28:03   33.25  n/a      .000
03540>                    overflow <=     1.0 03: ST6OVF         .00       .000 No_date   0:00     .00  n/a      .000
03541>        {Mx St ol ked=.1092E-02   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03542> R0005: C00128 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03543>      ADD HYD                    1.0 02: PT4ST5        431.02     3.613 No_date   29:19   21.45  n/a      .000
03544>                         +          1.0 02: C6-STR        1.87       .058 No_date   28:26   44.03  n/a      .000
03545>                         +          1.0 02: C6-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03546>                         +          1.0 02: C7-STR        1.62       .050 No_date   28:26   44.03  n/a      .000
03547>                         +          1.0 02: C7-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03548>                         +          1.0 02: ST6STR        .41       .036 No_date   28:03   33.25  n/a      .000
03549>                         +          1.0 02: ST6OVF         .00       .000 No_date   0:00     .00  n/a      .000
03550>                       SUM=         1.0 01: PT5ST6        434.92     3.684 No_date   29:13   21.64  n/a      .000
03551> R0005: C00129 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03552>      ROUTE CHANNEL      -->        1.0 02: PT5ST6        434.92     3.684 No_date   29:13   21.64  n/a      .000
03553>        [ RDT= 1.00] out <-        1.0 01: DRAIN4        434.92     3.572 No_date   29:35   21.64  n/a      .000
03554>        [ L/ S/ n=  324./  .100/ .043]
03555>        [ Vmx=   .480: Dmx=  1.218]
03556> R0005: C00130 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03557>      CONTINUOUS NASHYD          1.0 01: D4              1.73       .049 No_date   28:35   27.98 .490      .000
03558>        [ CN= 88.0: N= 3.00: Tp=  .60]
03559>        [ IaREC= 4.00: SM N= 14.94: SMX= 99.61: SK= .010]
03560>        [ InterEvent Time=  12.00]
03561> R0005: C00131 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03562>      CONTINUOUS STANDHYD        1.0 01: Area-B          24.04      2.784 No_date   28:04   40.98 .717      .000
03563>        [ XI M%= 62: TIMP= 77]
03564>        [ Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    F=  .00]
03565>        [ Pervious        area: IAper= 4.67: SLPP=1.40: LGP=  50.: MNP=.250: SCP=   .0]
03566>        [ Impervious      area: IAimp= 1.57: SLPI=1.40: LGI= 693.: MNI=.013: SCI=   .0]
03567>        [ IaREC mp=   4.00: IaRECper=   4.00]
03568> R0005: C00132 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03569>      ROUTE RESERVOIR -->        1.0 02: Area-B          24.04      2.784 No_date   28:04   40.98  n/a      .000
03570>                         out <=     1.0 01: SWMF-B        24.04       .278 No_date   28:55   40.98  n/a      .000
03571>                    overflow <=     1.0 03: SWMOVF         .00       .000 No_date   0:00     .00  n/a      .000
03572>        {Mx St ol ked=.6277E+00   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03573> R0005: C00133 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03574>      ADD HYD                    1.0 02: DRAIN4        434.92     3.572 No_date   29:35   21.64  n/a      .000
03575>                         +          1.0 02: D4              1.73       .049 No_date   28:35   27.98  n/a      .000
03576>                         +          1.0 02: SWMF-B        24.04       .278 No_date   28:55   40.98  n/a      .000
03577>                         +          1.0 02: SWMOVF         .00       .000 No_date   0:00     .00  n/a      .000
03578>                       SUM=         1.0 01: D4-EX         460.69     3.861 No_date   29:25   22.68  n/a      .000
03579> R0005: C00134 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03580>      ROUTE CHANNEL      -->        1.0 02: D4-EX         460.69     3.861 No_date   29:25   22.68  n/a      .000
03581>        [ RDT= 1.00] out <-        1.0 01: DRAIN5        460.69     3.810 No_date   29:44   22.68  n/a      .000
03582>        [ L/ S/ n=  413./  .160/ .033]
03583>        [ Vmx=   .561: Dmx=   .852]
03584> R0005: C00135 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03585>      CONTINUOUS NASHYD          1.0 01: D5              1.90       .044 No_date   28:42   25.92 .454      .000
03586>        [ CN= 86.0: N= 3.00: Tp=  .69]
03587>        [ IaREC= 4.00: SM N= 17.43: SMX= 116.21: SK= .010]
03588>        [ InterEvent Time=  12.00]
03589> R0005: C00136 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03590>      CONTINUOUS NASHYD          1.0 01: O-13 SDF        9.74       .290 No_date   28:22   24.64 .431      .000
03591>        [ CN= 81.0: N= 3.00: Tp=  .43]
03592>        [ IaREC= 4.00: SM N= 25.21: SMX= 168.09: SK= .010]
03593>        [ InterEvent Time=  12.00]
03594> R0005: C00137 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03595>      ROUTE RESERVOIR -->        1.0 02: O-13 SDF        9.74       .290 No_date   28:22   24.64  n/a      .000
03596>                         out <=     1.0 01: SDF           9.74       .032 No_date   32:11   24.64  n/a      .000
03597>                    overflow <=     1.0 03: OVFSDF         .00       .000 No_date   0:00     .00  n/a      .000
03598>        {Mx St ol ked=.1265E+00   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03599> R0005: C00138 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03600>      ADD HYD                    1.0 02: DRAIN5        460.69     3.810 No_date   29:44   22.68  n/a      .000
03601>                         +          1.0 02: D5              1.90       .044 No_date   28:42   25.92  n/a      .000
03602>                         +          1.0 02: SDF           9.74       .032 No_date   32:11   24.64  n/a      .000
03603>                       SUM=         1.0 01: PT6MC         472.33     3.863 No_date   29:44   22.73  n/a      .000
03604> R0005: C00139 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03605>      CONTINUOUS NASHYD          1.0 01: O-15           10.67       .385 No_date   28:13   23.43 .410      .000
03606>        [ CN= 82.0: N= 3.00: Tp=  .30]
03607>        [ IaREC= 4.00: SM N= 23.09: SMX= 153.94: SK= .010]
03608>        [ InterEvent Time=  12.00]
03609> R0005: C00140 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03610>      ADD HYD                    1.0 02: PT6MC         472.33     3.863 No_date   29:44   22.73  n/a      .000
03611>                         +          1.0 02: O-15           10.67       .385 No_date   28:13   23.43  n/a      .000
03612>                       SUM=         1.0 01: M-C           483.00     3.921 No_date   29:44   22.75  n/a      .000
03613> R0005: C00141 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03614>      ROUTE CHANNEL      -->        1.0 02: M-C           483.00     3.921 No_date   29:44   22.75  n/a      .000
03615>        [ RDT= 1.00] out <-        1.0 01: O-14 Ch       483.00     3.787 No_date   30:06   22.75  n/a      .000
03616>        [ L/ S/ n=  845./  .100/ .033]
03617>        [ Vmx=   .748: Dmx=  1.430]
03618> R0005: C00142 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03619>      CONTINUOUS NASHYD          1.0 01: O-14            5.00       .300 No_date   28:04   23.43 .410      .000
03620>        [ CN= 82.0: N= 3.00: Tp=  .13]
03621>        [ IaREC= 4.00: SM N= 23.09: SMX= 153.94: SK= .010]
03622>        [ InterEvent Time=  12.00]
03623> R0005: C00143 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03624>      ADD HYD                    1.0 02: O-14 Ch       483.00     3.787 No_date   30:06   22.75  n/a      .000
03625>                         +          1.0 02: O-14            5.00       .300 No_date   28:04   23.43  n/a      .000
03626>                       SUM=         1.0 01: OKEEFE        488.00     3.807 No_date   30:06   22.75  n/a      .000
03627> ************************************************************************
03628> #     Okeefe Pond
03629> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
03630> #       and a ratio of the catchment area to the West Clarke pond rating curve
03631> #       from the MSS for the next coordinates
03632> ************************************************************************
03633> R0005: C00144 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03634>      CONTINUOUS NASHYD          1.0 01: S-1-D2         18.67       .239 No_date   29:13   21.69 .380      .000
03635>        [ CN= 77.0: N= 3.00: Tp=  1.12]
03636>        [ IaREC= 4.00: SM N= 31.15: SMX= 207.66: SK= .010]
03637>        [ InterEvent Time=  12.00]
03638> R0005: C00145 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03639>      CONTINUOUS NASHYD          1.0 01: S-1-D3          6.79       .079 No_date   29:25   21.69 .380      .000
03640>        [ CN= 77.0: N= 3.00: Tp=  1.28]
03641>        [ IaREC= 4.00: SM N= 31.15: SMX= 207.66: SK= .010]
03642>        [ InterEvent Time=  12.00]
03643> R0005: C00146 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03644>      ADD HYD                    1.0 02: N_OK          53064.36    67.890 No_date   34:06   18.32  n/a      .000
03645>                         +          1.0 02: OKEEFE        488.00     3.807 No_date   30:06   22.75  n/a      .000
03646>                         +          1.0 02: S-1-D2         18.67       .239 No_date   29:13   21.69  n/a      .000
03647>                         +          1.0 02: S-1-D3          6.79       .079 No_date   29:25   21.69  n/a      .000
03648>                       SUM=         1.0 01: SN_OK         53577.82   69.253 No_date   34:06   18.36  n/a      .000
03649> R0005: C00147 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03650>      SAVE HYD                   1.0 01: SN_OK         53577.82   69.253 No_date   34:06   18.36  n/a      .000
03651>        fname : SN_OK 0005
03652>        remark: Total Flows at Okeefe Drain
03653> #
03654> # Hydrograph from Node Okeefe routed to Node at Foster Drain
03655> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
03656> #
03657> R0005: C00148 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03658>      ROUTE CHANNEL      -->        1.0 02: SN_OK         53577.82   69.253 No_date   34:06   18.36  n/a      .000
03659>        [ RDT= 1.00] out <-        1.0 01: N_FO          53577.82   69.117 No_date   34:07   18.36  n/a      .000
03660>        [ L/ S/ n= 1183./  .076/ .033]
03661>        [ Vmx=  1.031: Dmx=  2.621]
03662> ************************************************************************
03663> #     Catchment FOSTER
03664> #     - To Foster ditch (north of the Jock)
03665> #     - Partially developed (medium density); remaining agricultural
03666> #     - 2020-12-01 JFSA Foster area is 332 as per Master SWMF Environmental Study Report, CH2MHILL, Aug 2013.
03667> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
03668> #     - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
03669> ************************************************************************
03670> R0005: C00149 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03671>      CONTINUOUS STANDHYD        1.0 01: FOSTER        325.44     19.055 No_date   28:13   37.71 .660      .000
03672>        [ XI M%= 55: TIMP= 55]
03673>        [ LOSS= 2 : CN= 74.0]
03674>        [ Pervious        area: IAper= 4.67: SLPP=  50: LGP=  40.: MNP=.250: SCP=   .0]
03675>        [ Impervious      area: IAimp= 1.57: SLPI=  50: LGI=1473.: MNI=.013: SCI=   .0]
03676>        [ IaREC mp=   4.00: IaRECper=   4.00]
03677>        [ SM N= 36.67: SMX= 244.49: SK= .010]
03678> ************************************************************************
03679> #     Foster Pond
03680> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
03681> #       and a ratio of the catchment area to the West Clarke pond rating curve
03682> #       from the MSS for the next coordinates
03683> ************************************************************************
03684> R0005: C00150 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03685>      ROUTE RESERVOIR -->        1.0 02: FOSTER        325.44     19.055 No_date   28:13   37.71  n/a      .000
03686>                         out <=     1.0 01: P_FOS         325.44      5.174 No_date   29:08   37.71  n/a      .000
03687>                    overflow <=     1.0 03: FO-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03688>        {Mx St ol ked=.5004E+01   m3,  Tot Ov f Vol =.0000E+00   m3,  N-Ov f=     0,  Tot Dur Ov f=     0.hrs}
03689> R0005: C00151 ------------ DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - TpeakDate_hh:mm ---- RVmm R. C. ---- DWFcms
03690>      ADD HYD                    1.0 02: P_FOS         325.44      5.174 No_date   29:08   37.71  n/a      .000
03691>                         +          1.0 02: FO-OVF         .00       .000 No_date   0:00     .00  n/a      .000
03692>                       SUM=         1.0 01: FOSTER-OUT    325.44      5.174 No_date   29:08   37
```

```
03741>          remark: Total Flows at Sation 520 on Foster Drain
03742> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
03743> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
03744> #
03745> R0005: CO0161-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03746>      ROUTE CHANNEL    ->      1. 0 02: 520          335. 49      5. 129 No_date    29: 14    37. 23   n/ a       .000
03747>    [ RDT= 1. 00]  out <-      1. 0 01: 520- out     335. 49      5. 080 No_date    29: 32    37. 23   n/ a       .000
03748>      [ L/ S/ n=  860. /  . 587/ . 035]
03749>      [ Vmx= 1. 320: Dmx=    . 607]
03750> R0005: CO0162-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03751>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- FO- F- D    14. 96       . 206 No_date    29: 05    21. 69   . 380      .000
03752>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 01]
03753>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03754>        [ InterEvent Time=  12. 00]
03755> R0005: CO0163-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03756>      CONTI NUOUS  STANDHYD     1. 0 01: S- 1- D8          5. 27       . 654 No_date    28: 00    42. 00   . 735      .000
03757>        [ XI M= . 65:  TI M= . 65]
03758>        [ LOSS= 2:  CN= 75. 0]
03759>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
03760>        [ Impervious        area:  I Aimp= 1. 57:  SLPI = . 75:  LGI = 187. :  MNI = . 013:  SCI =     . 0]
03761>        [ IaREC= 4. 00:  IaRECper=    4. 00]
03762>        [ SMN=  33. 81:  SMX= 225. 43:  SK=  . 010]
03763> R0005: CO0164-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03764>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- A           75. 88      1. 479 No_date    28: 37    21. 69   . 380      .000
03765>        [ CN= 77. 0:  N= 3. 00:  Tp=  . 62]
03766>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03767>        [ InterEvent Time=  12. 00]
03768> R0005: CO0165-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03769>      CONTI NUOUS  NASHYD       1. 0 01: W_CLAR_UND        35. 65       . 462 No_date    29: 11    21. 69   . 380      .000
03770>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
03771>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03772>        [ InterEvent Time=  12. 00]
03773> R0005: CO0166-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03774>      ADD HYD          +      1. 0 02: N_FO          53577. 82    69. 117 No_date    34: 07    18. 36   n/ a       .000
03775>                       +      1. 0 02: 520- out        335. 49      5. 080 No_date    29: 32    37. 23   n/ a       .000
03776>                       +      1. 0 02: MS_P10           73. 29      1. 101 No_date    28: 56    41. 22   n/ a       .000
03777>                       +      1. 0 02: P10- OWF          . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03778>                       +      1. 0 02: W_CLAR_UND        35. 65       . 462 No_date    29: 11    21. 69   n/ a       .000
03779>                       +      1. 0 02: S- 1- FO- F- D    14. 96       . 206 No_date    29: 05    21. 69   n/ a       .000
03780>                       +      1. 0 02: S- 1- D8           5. 27       . 654 No_date    28: 00    42. 00   n/ a       .000
03781>                       +      1. 0 02: S- 1- A           75. 88      1. 479 No_date    28: 37    21. 69   n/ a       .000
03782>                       SUM=   1. 0 01: SN_FO        54118. 36    71. 824 No_date    33: 59    18. 52   n/ a       .000
03783> R0005: CO0167-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03784>      SAVE HYD              1. 0 01: SN_FO        54118. 36    71. 824 No_date    33: 59    18. 52   n/ a       .000
03785>        fname : SN_FO 0005
03786>        remark: Total Flows at Foster Drain
03787> # Hydrograph from Node Foster routed to Node at Cedarview Road
03788> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
03789> #
03790> R0005: CO0168-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03791>      ROUTE CHANNEL    ->      1. 0 02: SN_CE        54118. 36    71. 824 No_date    33: 59    18. 52   n/ a       .000
03792>  *  [ RDT= 1. 00]  out <-      1. 0 01: N_CE         54118. 36    71. 792 No_date    34: 07    18. 52   n/ a       .000
03793>      [ L/ S/ n=  159. /  . 082/ . 035]
03794>      [ Vmx= 1. 246: Dmx=    3. 101]
03795> #*************************************************************************
03796> #     Catchment S- 1
03797> #     - To Jock River (north and south of Jock)
03798> #     - Primarily agricultural fields; portion of sand quarry
03799> #*************************************************************************
03800> R0005: CO0169-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03801>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- B           55. 36      1. 342 No_date    28: 24    21. 69   . 380      .000
03802>        [ CN= 77. 0:  N= 3. 00:  Tp=  . 45]
03803>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03804>        [ InterEvent Time=  12. 00]
03805> #     - JFSA 2021- 02- 24 change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
03806> #     - JFSA 2021- 02- 24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore.  "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
03807> #     - JFSA 2021- 01- 19, after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymore
03808> R0005: CO0170-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03809>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- D1          21. 67       . 287 No_date    29: 09    21. 69   . 380      .000
03810>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 07]
03811>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03812>        [ InterEvent Time=  12. 00]
03813> R0005: CO0171-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03814>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- D4           3. 28       . 042 No_date    29: 11    21. 69   . 380      .000
03815>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
03816>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03817>        [ InterEvent Time=  12. 00]
03818> R0005: CO0172-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03819>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- D5          12. 84       . 166 No_date    29: 11    21. 69   . 380      .000
03820>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
03821>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03822>        [ InterEvent Time=  12. 00]
03823> R0005: CO0173-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03824>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- D6           1. 75       . 023 No_date    29: 11    21. 69   . 380      .000
03825>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
03826>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03827>        [ InterEvent Time=  12. 00]
03828> R0005: CO0174-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03829>      CONTI NUOUS  NASHYD       1. 0 01: S- 1- D7           2. 03       . 026 No_date    29: 11    21. 69   . 380      .000
03830>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
03831>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03832>        [ InterEvent Time=  12. 00]
03833> #     Catchment W_CLAR
03834> #     - To West Clarke Drain (south of the Jock)
03835> #     - Subdivision with SWM, as per Barrhaven South MSS
03836> #     - 2020- 11- 30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)- 11
03837> #     - 2020- 11- 30 split CLARKE Drainage Area to MAJOR and ALL
03838> #*************************************************************************
03839> R0005: CO0175-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03840>      CONTI NUOUS  STANDHYD     1. 0 01: W_CLAR_MI          1. 77       . 192 No_date    28: 00    37. 36   . 654      .000
03841>        [ XI M= . 65:  TI M= . 59]
03842>        [ LOSS= 2:  CN= 77. 0]
03843>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 1. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
03844>        [ Impervious        area:  I Aimp= 1. 57:  SLPI = 1. 00:  LGI =  109. :  MNI = . 013:  SCI =     . 0]
03845>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
03846>        [ SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03847> # 5- Year + 12% Capacity
03848> R0005: CO0176-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03849>      ROUTE RESERVOIR  ->      1. 0 02: W_CLAR_MI          1. 77       . 192 No_date    28: 00    37. 36   n/ a       .000
03850>                       out <=     1. 0 01: W_CLAR_Mfa        1. 77       . 192 No_date    28: 00    37. 36   n/ a       .000
03851>                overflow <=     1. 0 03: W_CLAR_Mfj         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03852>        [ MxStoUsed= . 9116E- 04  m3,  Tot Ovf Vol= . 0000E+ 00  m3,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
03853> R0005: CO0177-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03854>      CONTI NUOUS  STANDHYD     1. 0 01: W_CLAR_ALL        119. 40      10. 597 No_date    28: 05    41. 22   n/ a       .000
03855>        [ XI M= . 60:  TI M= . 65]
03856>        [ LOSS= 2:  CN= 77. 0]
03857>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 1. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
03858>        [ Impervious        area:  I Aimp= 1. 57:  SLPI = 1. 00:  LGI =  892. :  MNI = . 013:  SCI =     . 0]
03859>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
03860>        [ SMN=  31. 15:  SMX= 207. 66:  SK=  . 010]
03861> R0005: CO0178-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03862>      ADD HYD          +      1. 0 02: W_CLAR_ALL        119. 40      10. 597 No_date    28: 05    41. 22   n/ a       .000
03863>                       +      1. 0 02: W_CLAR_Mfj         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03864>                       SUM=   1. 0 01: W_CLAR           119. 40      10. 597 No_date    28: 05    41. 22   n/ a       .000
03865> R0005: CO0179-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03866>      SAVE HYD              1. 0 01: W_CLAR           119. 40      10. 597 No_date    28: 05    41. 22   n/ a       .000
03867>        fname : W_CLAR 0005
03868>        remark: Total Flows to West Clarke
03869> #*************************************************************************
03870> #     West Clarke Pond 2
03871> #     - Rating curve obtained from Barrhaven South MSS modeling
03872> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
03873> #*************************************************************************
03874> R0005: CO0180-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03875>      ROUTE RESERVOIR  ->      1. 0 02: W_CLAR           119. 40      10. 597 No_date    28: 05    41. 22   n/ a       .000
03876>                       out <=     1. 0 01: MS_P2            119. 40       1. 795 No_date    28: 54    41. 22   n/ a       .000
03877>                overflow <=     1. 0 03: P2- OWF            . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03878>        [ MxStoUsed= . 2665E+ 01  m3,  Tot Ovf Vol= . 0000E+ 00  m3,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
03879> #*************************************************************************
03880> R0005: CO0181-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03881>      ADD HYD          +      1. 0 02: N_CE          54118. 36    71. 792 No_date    34: 07    18. 52   n/ a       .000
03882>                       +      1. 0 02: S- 1- D4           3. 28       . 042 No_date    29: 11    21. 69   n/ a       .000
03883>                       +      1. 0 02: S- 1- D5          12. 84       . 166 No_date    29: 11    21. 69   n/ a       .000
03884>                       +      1. 0 02: MS_P2            119. 40      1. 795 No_date    28: 54    41. 22   n/ a       .000
03885>                       +      1. 0 02: P2- OWF            . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03886>                       SUM=   1. 0 01: SN_CE          54253. 88    72. 522 No_date    34: 07    18. 57   n/ a       .000
03887> R0005: CO0182-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03888>      SAVE HYD              1. 0 01: SN_CE          54253. 88    72. 522 No_date    34: 07    18. 57   n/ a       .000
03889>        fname : SN_CE 0005
03890>        remark: Total Flows before Station 5737 on Jock River
03891> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
03892> # JFSA 2021- 02- 25 add station 5002. Station 5737 was extracted from the HEC- RAS model T: \PROJ\1474- 1
03893> # JFSA 2021- 03- 02  change the slope to 0. 1% instead of 0. 0175 to stabilize the model
03894> R0005: CO0183-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03895>      ROUTE CHANNEL    ->      1. 0 02: SN_CE          54253. 88    72. 522 No_date    34: 07    18. 57   n/ a       .000
03896>  *  [ RDT= 1. 00]  out <-      1. 0 01: 5737         54253. 88    70. 229 No_date    36: 14    18. 57   n/ a       .000
03897>      [ L/ S/ n=  270. /  . 018/ . 035]
03898>      [ Vmx=    . 686: Dmx=    4. 074]
03899> R0005: CO0184-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03900>      ADD HYD          +      1. 0 02: 5737         54253. 88    70. 229 No_date    36: 14    18. 57   n/ a       .000
03901>                       +      1. 0 02: S- 1- D1           21. 67       . 287 No_date    29: 09    21. 69   n/ a       .000
03902>                       +      1. 0 02: S- 1- D6           1. 75       . 023 No_date    29: 11    21. 69   n/ a       .000
03903>                       +      1. 0 02: S- 1- D7           2. 03       . 026 No_date    29: 11    21. 69   n/ a       .000
03904>                       SUM=   1. 0 01: 5002          54279. 33    70. 280 No_date    36: 14    18. 57   n/ a       .000
03905> R0005: CO0185-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03906>      SAVE HYD              1. 0 01: 5002          54279. 33    70. 280 No_date    36: 14    18. 57   n/ a       .000
03907>        fname : 5002. 0005
03908>        remark: Total Flows before Station 5002 on Jock River
03909> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
03910> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
03911> # JFSA 2021- 02- 19 Change the slope from 0. 01 % (as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
03912> # JFSA 2021- 02- 19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
03913> # JFSA 2021- 02- 26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
03914> R0005: CO0186-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03915>      ROUTE CHANNEL    ->      1. 0 02: 5002         54279. 33    70. 280 No_date    36: 14    18. 57   n/ a       .000
03916>      [ RDT= 1. 00]  out <-      1. 0 01: N_WCa        54279. 33    70. 286 No_date    36: 12    18. 57   n/ a       .000
03917>      [ L/ S/ n=  245. /  . 095/ . 035]
03918>      [ Vmx= 1. 070: Dmx=    2. 329]
03919> R0005: CO0187-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03920>      ROUTE CHANNEL    ->      1. 0 02: N_WCa        54279. 33    70. 286 No_date    36: 12    18. 57   n/ a       .000
03921>      [ RDT= 1. 00]  out <-      1. 0 01: N_WCb        54279. 33    70. 290 No_date    36: 11    18. 57   n/ a       .000
03922>      [ L/ S/ n=  245. /  . 095/ . 035]
03923>      [ Vmx= 1. 070: Dmx=    2. 329]
03924> R0005: CO0188-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03925>      ROUTE CHANNEL    ->      1. 0 02: N_WCb        54279. 33    70. 290 No_date    36: 11    18. 57   n/ a       .000
03926>      [ RDT= 1. 00]  out <-      1. 0 01: N_WC         54279. 33    70. 433 No_date    37: 41    18. 57   n/ a       .000
03927>      [ L/ S/ n=  245. /  . 095/ . 035]
03928>      [ Vmx= 1. 070: Dmx=    2. 329]
03929> #*************************************************************************
03930> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
03931> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
03932> #
03933> R0005: CO0189-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03934>      ROUTE CHANNEL    ->      1. 0 02: N_WC         54279. 33    70. 433 No_date    37: 41    18. 57   n/ a       .000
03935>    [ RDT= 1. 00]  out <-      1. 0 01: N_KB         54279. 33    70. 411 No_date    37: 42    18. 57   n/ a       .000
03936>      [ L/ S/ n=  1020. /  . 050/ . 035]
03937>      [ Vmx=    . 948: Dmx=    2. 868]
03938> #*************************************************************************
03939> #     Catchment KEN_BU
03940> #     - To Kennedy- Burnett SWM Facility
03941> #     - Outlets to Fraser- Clarke drain (north of the Jock)
03942> #     - Medium density residential subdivision
03943> #*************************************************************************
03944> #*************************************************************************
03945> #     Existing Kennedy Burnett - SWM Facility
03946> #     - Rating curve obtained from URTKHP
03947> #     - Tributary Drainage Area to Pond = 160 ha
03948> #*************************************************************************
03949> R0005: CO0190-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03950>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 01A           40. 82       2. 624 No_date    28: 14    20. 08   . 351      .000
03951>        [ XI M= . 10:  TI M= . 40]
03952>        [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:     F=  . 00]
03953>        [ Pervious          area:  I Aper= 4. 67:  SLPP=  . 50:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
03954>        [ Impervious        area:  I Aimp=  . 79:  SLPI =  . 50:  LGI =  522. :  MNI = . 013:  SCI =     . 0]
03955>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
03956> R0005: CO0191-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03957>      COMPUTE DUALHYD           1. 0 01: KB- 01A           40. 82       2. 624 No_date    28: 14    20. 08   n/ a       .000
03958>      Major System    /         1. 0 02: KB- 01A- Mf        . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03959>      Minor System    \         1. 0 03: KB- 01A- Mn       40. 82       2. 624 No_date    28: 14    20. 08   n/ a       .000
03960>        [ MJSysSto= . 0000E+ 00,  MJ Ov f Vol= . 0000E+ 00,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
03961> R0005: CO0192-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03962>      ADD HYD          +      1. 0 02: KB- 01A- Mf        . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03963>                       +      1. 0 02: KB- 01A- Mn       40. 82       2. 624 No_date    28: 14    20. 08   n/ a       .000
03964>                       SUM=   1. 0 01: KB- 01A- S        40. 82       2. 624 No_date    28: 14    20. 08   n/ a       .000
03965> R0005: CO0193-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03966>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 01B           31. 10       1. 779 No_date    28: 08    22. 42   . 393      .000
03967>        [ XI M= . 19:  TI M= . 38]
03968>        [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:     F=  . 00]
03969>        [ Pervious          area:  I Aper= 4. 67:  SLPP= . 42:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
03970>        [ Impervious        area:  I Aimp=  . 79:  SLPI =  . 42:  LGI =  455. :  MNI = . 013:  SCI =     . 0]
03971>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
03972> R0005: CO0194-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03973>      COMPUTE DUALHYD           1. 0 01: KB- 01B           31. 10       1. 779 No_date    28: 08    22. 42   n/ a       .000
03974>      Major System    /         1. 0 02: KB- 01B- Mf        . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03975>      Minor System    \         1. 0 03: KB- 01B- Mn       31. 10       1. 585 No_date    28: 03    22. 52   n/ a       .000
03976>        [ MJSysSto= . 1530E+ 03,  Tot Ov f Vol= . 0000E+ 00,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
03977> R0005: CO0195-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03978>      ADD HYD          +      1. 0 02: KB- 01B- Mf        . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03979>                       +      1. 0 02: KB- 01B- Mn       31. 10       1. 585 No_date    28: 03    22. 52   n/ a       .000
03980>                       SUM=   1. 0 01: KB- 01B- S        31. 10       1. 585 No_date    28: 03    22. 52   n/ a       .000
03981> R0005: CO0196-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03982>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 01C           13. 78       1. 235 No_date    28: 05    23. 43   . 410      .000
03983>        [ XI M= . 20:  TI M= . 41]
03984>        [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:     F=  . 00]
03985>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
03986>        [ Impervious        area:  I Aimp=  . 79:  SLPI =  . 50:  LGI =  303. :  MNI = . 013:  SCI =     . 0]
03987>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
03988> R0005: CO0197-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03989>      COMPUTE DUALHYD           1. 0 01: KB- 01C           13. 78       1. 235 No_date    28: 05    23. 43   n/ a       .000
03990>      Major System    /         1. 0 02: KB- 01C- Mf        . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03991>      Minor System    \         1. 0 03: KB- 01C- Mn       13. 78       1. 235 No_date    28: 05    23. 43   n/ a       .000
03992>        [ MJSysSto= . 0000E+ 00,  Tot Ov f Vol= . 0000E+ 00,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
03993> R0005: CO0198-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03994>      ADD HYD          +      1. 0 02: KB- 01C- Mf        . 00       . 000 No_date     0: 00     . 00    n/ a       .000
03995>                       +      1. 0 02: KB- 01C- Mn       13. 78       1. 235 No_date    28: 05    23. 43   n/ a       .000
03996>                       SUM=   1. 0 01: KB- 01C- S        13. 78       1. 235 No_date    28: 05    23. 43   n/ a       .000
03997> R0005: CO0199-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
03998>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 03            84. 78       6. 180 No_date    28: 10    22. 99   . 402      .000
03999>        [ XI M= . 20:  TI M= . 39]
04000>        [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:     F=  . 00]
04001>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
04002>        [ Impervious        area:  I Aimp=  . 79:  SLPI =  . 63:  LGI =  752. :  MNI = . 013:  SCI =     . 0]
04003>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
04004> R0005: CO0200-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04005>      COMPUTE DUALHYD           1. 0 01: KB- 03            84. 78       6. 180 No_date    28: 10    22. 99   n/ a       .000
04006>      Major System    /         1. 0 02: KB- 03- Mf         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
04007>      Minor System    \         1. 0 03: KB- 03- Mn        84. 78       5. 270 No_date    28: 03    23. 12   n/ a       .000
04008>        [ MJSysSto= . 5145E+ 03,  Tot Ov f Vol= . 0000E+ 00,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
04009> R0005: CO0201-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04010>      ADD HYD          +      1. 0 02: KB- 03- Mf         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
04011>                       +      1. 0 02: KB- 03- Mn        84. 78       5. 270 No_date    28: 03    23. 12   n/ a       .000
04012>                       SUM=   1. 0 01: KB- 03- S         84. 78       5. 270 No_date    28: 03    23. 12   n/ a       .000
04013> R0005: CO0202-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04014>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 04            6. 95       1. 043 No_date    28: 01    49. 53   . 867      .000
04015>        [ XI M= . 85:  TI M= . 85]
04016>        [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:     F=  . 00]
04017>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
04018>        [ Impervious        area:  I Aimp=  . 94:  SLPI =  . 50:  LGI =  215. :  MNI = . 013:  SCI =     . 0]
04019>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
04020> R0005: CO0203-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04021>      COMPUTE DUALHYD           1. 0 01: KB- 04            6. 95       1. 043 No_date    28: 01    49. 53   n/ a       .000
04022>      Major System    /         1. 0 02: KB- 04- Mf         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
04023>      Minor System    \         1. 0 03: KB- 04- Mn        6. 95       . 503 No_date    27: 48    49. 78   n/ a       .000
04024>        [ MJSysSto= . 3742E+ 03,  Tot Ov f Vol= . 0000E+ 00,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
04025> R0005: CO0204-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04026>      ADD HYD          +      1. 0 02: KB- 04- Mf         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
04027>                       +      1. 0 02: KB- 04- Mn        6. 95       . 503 No_date    27: 48    49. 78   n/ a       .000
04028>                       SUM=   1. 0 01: KB- 04- S         6. 95       . 503 No_date    27: 48    49. 78   n/ a       .000
04029> R0005: CO0205-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04030>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 05            5. 19       . 855 No_date    28: 00    52. 49   . 919      .000
04031>        [ XI M= . 93:  TI M= . 93]
04032>        [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:     F=  . 00]
04033>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
04034>        [ Impervious        area:  I Aimp= 1. 57:  SLPI =  . 50:  LGI =  186. :  MNI = . 013:  SCI =     . 0]
04035>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
04036> R0005: CO0206-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04037>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 06           12. 93       2. 190 No_date    28: 00    50. 55   . 885      .000
04038>        [ XI M= . 87:  TI M= . 87]
04039>        [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:     F=  . 00]
04040>        [ Pervious          area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=    40. :  MNP= . 250:  SCP=     . 0]
04041>        [ Impervious        area:  I Aimp=  . 94:  SLPI =4. 75:  LGI =  294. :  MNI = . 013:  SCI =     . 0]
04042>        [ IaREC= mp=    4. 00:  IaRECper=    4. 00]
04043> R0005: CO0207-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04044>      COMPUTE DUALHYD           1. 0 01: KB- 06           12. 93       2. 190 No_date    28: 00    50. 55   n/ a       .000
04045>      Major System    /         1. 0 02: KB- 06- Mf         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
04046>      Minor System    \         1. 0 03: KB- 06- Mn        12. 93       2. 190 No_date    28: 00    50. 55   n/ a       .000
04047>        [ MJSysSto= . 0000E+ 00,  Tot Ov f Vol= . 0000E+ 00,  N- Ov f=      0,  Tot Dur Ov f=     0. hrs]
04048> R0005: CO0208-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04049>      ADD HYD          +      1. 0 02: KB- 06- Mf         . 00       . 000 No_date     0: 00     . 00    n/ a       .000
04050>                       +      1. 0 02: KB- 06- Mn        12. 93       2. 190 No_date    28: 00    50. 55   n/ a       .000
04051>                       SUM=   1. 0 01: KB- 06- S         12. 93       2. 190 No_date    28: 00    50. 55   n/ a       .000
04052> R0005: CO0209-------------DTmin: 1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm ---- RVmm R. C. ---- DWFcms
04053>      CONTI NUOUS  STANDHYD     1. 0 01: KB- 11            4. 03       . 584 No_date    28: 00    41. 88   . 733      .000
04054>        [ XI M= . 68:  TI M= . 68]
04055>        [ Horton parameters:  Fo= 76. 20:  
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04115>      COMPUTE DUALHYD          1.0 01: KB-07          10.86     1.770 No_date   28:00   50.11  n/a     .000
04116>        Major System   /       1.0 02: KB-07-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04117>        Minor System   \       1.0 01: KB-07-MN       10.86     1.770 No_date   28:00   50.11  n/a     .000
04118>        [MjSysSto=.0000E+00,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04119> R0005: C00220-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04120>      ADD HYD                  1.0 02: KB-07-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04121>                     +         1.0 02: KB-07-MN       10.86     1.770 No_date   28:00   50.11  n/a     .000
04122>                   SUM=        1.0 01: KB-07-S        10.86     1.770 No_date   28:00   50.11  n/a     .000
04123> R0005: C00221-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04124>      CONTINUOUS STANDHYD      1.0 01: KB-08          6.61      .900 No_date   28:00   40.32  .706     .000
04125>        [XI M=. 64: TI M=. 64]
04126>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04127>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04128>        [Impervious    area:  IAimp=  .79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=    .0]
04129>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04130> R0005: C00222-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04131>      COMPUTE DUALHYD          1.0 01: KB-08          6.61      .900 No_date   28:00   40.32  n/a     .000
04132>        Major System   /       1.0 02: KB-08-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04133>        Minor System   \       1.0 03: KB-08-MN       6.61      .900 No_date   28:00   40.32  n/a     .000
04134>        [MjSysSto=.0000E+00,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04135> R0005: C00223-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04136>      ADD HYD                  1.0 02: KB-08-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04137>                     +         1.0 02: KB-08-MN       6.61      .900 No_date   28:00   40.32  n/a     .000
04138>                   SUM=        1.0 01: KB-08-S        6.61      .900 No_date   28:00   40.32  n/a     .000
04139> R0005: C00224-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04140>      CONTINUOUS STANDHYD      1.0 01: KB-09          2.60      .448 No_date   28:00   49.44  .865     .000
04141>        [XI M=. 86: TI M=. 86]
04142>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04143>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04144>        [Impervious    area:  IAimp= 1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=    .0]
04145>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04146> R0005: C00225-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04147>      CONTINUOUS STANDHYD      1.0 01: KB-10_1        2.37      .409 No_date   28:00   49.44  .865     .000
04148>        [XI M=. 86: TI M=. 86]
04149>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04150>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04151>        [Impervious    area:  IAimp= 1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=    .0]
04152>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04153> R0005: C00226-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04154>      CONTINUOUS STANDHYD      1.0 01: KB-10_2        1.14      .199 No_date   28:00   49.44  .865     .000
04155>        [XI M=. 86: TI M=. 86]
04156>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04157>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04158>        [Impervious    area:  IAimp= 1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=    .0]
04159>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04160> R0005: C00227-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04161>      CONTINUOUS STANDHYD      1.0 01: KB-12          4.86      .777 No_date   28:00   46.75  .818     .000
04162>        [XI M=. 79: TI M=. 79]
04163>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04164>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04165>        [Impervious    area:  IAimp= 1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=    .0]
04166>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04167> R0005: C00228-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04168>      COMPUTE DUALHYD          1.0 01: KB-12          4.86      .777 No_date   28:00   46.75  n/a     .000
04169>        Major System   /       1.0 02: KB-12-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04170>        Minor System   \       1.0 03: KB-12-MN       4.86      .777 No_date   28:00   46.75  n/a     .000
04171>        [MjSysSto=.0000E+00,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04172> R0005: C00229-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04173>      ADD HYD                  1.0 02: KB-12-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04174>                     +         1.0 02: KB-12-MN       4.86      .777 No_date   28:00   46.75  n/a     .000
04175>                   SUM=        1.0 01: KB-12-S        4.86      .777 No_date   28:00   46.75  n/a     .000
04176> R0005: C00230-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04177>      CONTINUOUS STANDHYD      1.0 01: KB-13         10.19     1.364 No_date   28:00   40.32  .706     .000
04178>        [XI M=. 64: TI M=. 64]
04179>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04180>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04181>        [Impervious    area:  IAimp=  .79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=    .0]
04182>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04183> R0005: C00231-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04184>      COMPUTE DUALHYD          1.0 01: KB-13         10.19     1.364 No_date   28:00   40.32  n/a     .000
04185>        Major System   /       1.0 02: KB-13-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04186>        Minor System   \       1.0 03: KB-13-MN       10.19     1.364 No_date   28:00   40.32  n/a     .000
04187>        [MjSysSto=.0000E+00,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04188> R0005: C00232-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04189>      ADD HYD                  1.0 02: KB-13-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04190>                     +         1.0 02: KB-13-MN       10.19     1.364 No_date   28:00   40.32  n/a     .000
04191>                   SUM=        1.0 01: KB-13-S        10.19     1.364 No_date   28:00   40.32  n/a     .000
04192> R0005: C00233-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04193>      CONTINUOUS STANDHYD      1.0 01: KB-14          5.47      .756 No_date   28:00   40.32  .706     .000
04194>        [XI M=. 64: TI M=. 64]
04195>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04196>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04197>        [Impervious    area:  IAimp=  .79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=    .0]
04198>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04199> R0005: C00234-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04200>      COMPUTE DUALHYD          1.0 01: KB-14          5.47      .756 No_date   28:00   40.32  n/a     .000
04201>        Major System   /       1.0 02: KB-14-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04202>        Minor System   \       1.0 03: KB-14-MN       5.47      .756 No_date   28:00   40.32  n/a     .000
04203>        [MjSysSto=.0000E+00,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04204> R0005: C00235-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04205>      ADD HYD                  1.0 02: KB-14-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04206>                     +         1.0 02: KB-14-MN       5.47      .756 No_date   28:00   40.32  n/a     .000
04207>                   SUM=        1.0 01: KB-14-S        5.47      .756 No_date   28:00   40.32  n/a     .000
04208> R0005: C00236-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04209>      CONTINUOUS STANDHYD      1.0 01: KB-16_2        3.42      .462 No_date   28:01   43.88  .768     .000
04210>        [XI M=. 71: TI M=. 71]
04211>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04212>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04213>        [Impervious    area:  IAimp=  .16: SLPI=  .30: LGI= 151. : MNI=. 013: SCI=    .0]
04214>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04215> R0005: C00237-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04216>      ADD HYD                  1.0 02: KB-Pond1     206.72    11.746 No_date   28:15   27.13  n/a     .000
04217>                     +         1.0 02: KB-07-S        10.86     1.770 No_date   28:00   50.11  n/a     .000
04218>                     +         1.0 02: KB-08-S         6.61      .900 No_date   28:00   40.32  n/a     .000
04219>                     +         1.0 02: KB-09           2.60      .448 No_date   28:00   49.44  n/a     .000
04220>                     +         1.0 02: KB-10_1         2.37      .409 No_date   28:00   49.43  n/a     .000
04221>                     +         1.0 02: KB-10_2         1.14      .199 No_date   28:00   49.44  n/a     .000
04222>                     +         1.0 02: KB-12-S         4.86      .777 No_date   28:00   46.75  n/a     .000
04223>                     +         1.0 02: KB-13-S        10.19     1.364 No_date   28:00   40.32  n/a     .000
04224>                     +         1.0 02: KB-14-S         5.47      .756 No_date   28:00   40.32  n/a     .000
04225>                     +         1.0 02: KB-16_2         3.42      .462 No_date   28:01   43.88  n/a     .000
04226>                   SUM=        1.0 01: KB-P2         254.24    16.750 No_date   28:01   30.40  n/a     .000
04227> R0005: C00238-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04228>      ROUTE RESERVOIR  -->      1.0 02: KB-P2        254.24    16.750 No_date   28:01   30.40  n/a     .000
04229>                     out <=     1.0 01: KB-P2R       254.24    13.525 No_date   28:14   30.40  n/a     .000
04230>                   overflow <=  1.0 03: KB-P2ovf         .00      .000 No_date    0:00     .00  n/a     .000
04231>        [MaxStoRed=.6552E+00    m3,  Tot Orf Vol=.0000E+00    m3,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04232> R0005: C00239-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04233>      ADD HYD                  1.0 02: KB-P2R       254.24    13.525 No_date   28:14   30.40  n/a     .000
04234>                     +         1.0 02: KB-P2ovf         .00      .000 No_date    0:00     .00  n/a     .000
04235>                   SUM=        1.0 01: KB-Pond2     254.24    13.525 No_date   28:14   30.40  n/a     .000
04236> R0005: C00240-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04237>      SAVE HYD                 1.0 01: KB-Pond2     254.24    13.525 No_date   28:14   30.40  n/a     .000
04238>        fname : KB-Pond2. 0005
04239>        remark: Total Flows at KB second pond
04240> R0005: C00241-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04241>      CONTINUOUS STANDHYD      1.0 01: KB-16_1        2.80      .398 No_date   28:01   45.69  .800     .000
04242>        [XI M=. 75: TI M=. 75]
04243>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04244>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04245>        [Impervious    area:  IAimp=  .16: SLPI=  .30: LGI= 137. : MNI=. 013: SCI=    .0]
04246>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04247> R0005: C00242-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04248>      ADD HYD                  1.0 02: KB-Pond1     254.24    13.525 No_date   28:14   30.40  n/a     .000
04249>                     +         1.0 02: KB-16_1        2.80      .398 No_date   28:01   45.69  n/a     .000
04250>                   SUM=        1.0 01: KB-P3         257.04    13.655 No_date   28:13   30.57  n/a     .000
04251> R0005: C00243-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04252>      ROUTE RESERVOIR  -->      1.0 02: KB-P3        257.04    13.655 No_date   28:13   30.57  n/a     .000
04253>                     out <=     1.0 01: KB-P3R        14.18      .051 No_date   17:43   30.57  n/a     .000
04254>                   overflow <=  1.0 03: KB-P3ovf     242.86    13.603 No_date   28:13   30.57  n/a     .000
04255>        [MaxStoRed=.1998E-02    m3,  Tot Orf Vol=.7424E+01    m3,  N-Orf=     2,  Tot Dur Orf=    23. hrs]
04256> R0005: C00244-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04257>      ADD HYD                  1.0 02: KB-P3R        14.18      .051 No_date   17:43   30.57  n/a     .000
04258>                     +         1.0 02: KB-P3ovf     242.86    13.603 No_date   28:13   30.57  n/a     .000
04259>                   SUM=        1.0 01: KB-Pond3     257.04    13.654 No_date   28:13   30.57  n/a     .000
04260> R0005: C00245-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04261>      SAVE HYD                 1.0 01: KB-Pond3     257.04    13.654 No_date   28:13   30.57  n/a     .000
04262>        fname : KB-Pond3. 0005
04263>        remark: Total Flows at KB third pond
04264> #*************************************************************************
04265> #    EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
04266> #    - TO FRASER-CLARKE DRAIN
04267> #*************************************************************************
04268> R0005: C00246-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04269>      CONTINUOUS STANDHYD      1.0 01: FC-01          8.03      .865 No_date   28:01   32.39  .567     .000
04270>        [XI M=. 47: TI M=. 47]
04271>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04272>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04273>        [Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=    .0]
04274>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04275> R0005: C00247-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04276>      COMPUTE DUALHYD          1.0 01: FC-01          8.03      .865 No_date   28:01   32.39  n/a     .000
04277>        Major System   /       1.0 02: FC-01-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04278>        Minor System   \       1.0 03: FC-01-MN       8.03      .756 No_date   27:58   32.40  n/a     .000
04279>        [MjSysSto=.2912E+02,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04280> R0005: C00248-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04281>      ADD HYD                  1.0 02: FC-01-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04282>                     +         1.0 02: FC-01-MN       8.03      .756 No_date   27:58   32.40  n/a     .000
04283>                   SUM=        1.0 01: FC-01-S        8.03      .756 No_date   27:58   32.40  n/a     .000
04284> R0005: C00249-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04285>      CONTINUOUS STANDHYD      1.0 01: FC-02         16.05     2.547 No_date   28:01   52.49  .919     .000
04286>        [XI M=. 93: TI M=. 93]
04287>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04288>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04289>        [Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=    .0]
04290>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04291> R0005: C00250-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04292>      COMPUTE DUALHYD          1.0 01: FC-02         16.05     2.547 No_date   28:01   52.49  n/a     .000
04293>        Major System   /       1.0 02: FC-02-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04294>        Minor System   \       1.0 03: FC-02-MN       16.05     1.159 No_date   27:47   52.68  n/a     .000
04295>        [MjSysSto=.1011E+04,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04296> R0005: C00251-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04297>      ADD HYD                  1.0 02: FC-02-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04298>                     +         1.0 02: FC-02-MN       16.05     1.159 No_date   27:47   52.68  n/a     .000
04299>                   SUM=        1.0 01: FC-02-S        16.05     1.159 No_date   27:47   52.68  n/a     .000
04300> R0005: C00252-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04301>      CONTINUOUS STANDHYD      1.0 01: FC-03          7.37      .956 No_date   28:01   39.82  .697     .000
04302>        [XI M=. 64: TI M=. 64]
04303>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04304>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04305>        [Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=    .0]
04306>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04307> R0005: C00253-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04308>      COMPUTE DUALHYD          1.0 01: FC-03          7.37      .956 No_date   28:01   39.82  n/a     .000
04309>        Major System   /       1.0 02: FC-03-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04310>        Minor System   \       1.0 03: FC-03-MN       7.37      .358 No_date   27:45   39.85  n/a     .000
04311>        [MjSysSto=.4806E+03,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04312> R0005: C00254-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04313>      ADD HYD                  1.0 02: FC-03-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04314>                     +         1.0 02: FC-03-MN       7.37      .358 No_date   27:45   39.85  n/a     .000
04315>                   SUM=        1.0 01: FC-03-S        7.37      .358 No_date   27:45   39.85  n/a     .000
04316> R0005: C00255-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04317>      CONTINUOUS STANDHYD      1.0 01: FC-04         12.87     1.600 No_date   28:01   39.82  .697     .000
04318>        [XI M=. 64: TI M=. 64]
04319>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04320>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04321>        [Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI= 293. : MNI=. 013: SCI=    .0]
04322>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04323> R0005: C00256-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04324>      COMPUTE DUALHYD          1.0 01: FC-04         12.87     1.600 No_date   28:01   39.82  n/a     .000
04325>        Major System   /       1.0 02: FC-04-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04326>        Minor System   \       1.0 03: FC-04-MN       12.87      .741 No_date   27:48   39.85  n/a     .000
04327>        [MjSysSto=.6277E+03,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04328> R0005: C00257-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04329>      ADD HYD                  1.0 02: FC-04-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04330>                     +         1.0 02: FC-04-MN       12.87      .741 No_date   27:48   39.85  n/a     .000
04331>                   SUM=        1.0 01: FC-04-S        12.87      .741 No_date   27:48   39.85  n/a     .000
04332> #*************************************************************************
04333> #    PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report June, 2020)
04334> #    - TO LOCK RIVER
04335> #*************************************************************************
04336> R0005: C00258-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04337>      CONTINUOUS STANDHYD      1.0 01: FR-01          8.24     1.064 No_date   28:01   39.82  .697     .000
04338>        [XI M=. 64: TI M=. 64]
04339>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04340>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04341>        [Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI= 234. : MNI=. 013: SCI=    .0]
04342>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04343> R0005: C00259-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04344>      COMPUTE DUALHYD          1.0 01: JR-01          8.24     1.064 No_date   28:01   39.82  n/a     .000
04345>        Major System   /       1.0 02: JR-01-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04346>        Minor System   \       1.0 03: JR-01-MN       8.24      .563 No_date   28:29   40.05  n/a     .000
04347>        [MjSysSto=.3052E+03,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04348> R0005: C00260-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04349>      ADD HYD                  1.0 02: JR-01-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04350>                     +         1.0 02: JR-01-MN       8.24      .563 No_date   27:50   40.05  n/a     .000
04351>                   SUM=        1.0 01: JR-01-S        8.24      .563 No_date   27:50   40.05  n/a     .000
04352> R0005: C00261-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04353>      CONTINUOUS STANDHYD      1.0 01: JR-02          1.59      .224 No_date   28:00   39.82  .697     .000
04354>        [XI M=. 64: TI M=. 64]
04355>        [Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
04356>        [Pervious      area:  IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04357>        [Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI= 103. : MNI=. 013: SCI=    .0]
04358>        [IaREC mp=    4. 00:  IaREC per=    4. 00]
04359> R0005: C00262-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04360>      COMPUTE DUALHYD          1.0 01: JR-02          1.59      .224 No_date   28:00   39.82  n/a     .000
04361>        Major System   /       1.0 02: JR-02-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04362>        Minor System   \       1.0 03: JR-02-MN       1.59      .153 No_date   27:53   40.12  n/a     .000
04363>        [MjSysSto=.2948E+02,  Tot Orf Vol=.0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04364> R0005: C00263-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04365>      ADD HYD                  1.0 02: JR-02-MJ         .00      .000 No_date    0:00     .00  n/a     .000
04366>                     +         1.0 02: JR-02-MN       1.59      .153 No_date   27:53   40.12  n/a     .000
04367>                   SUM=        1.0 01: JR-02-S        1.59      .153 No_date   27:53   40.12  n/a     .000
04368> #*************************************************************************
04369> #    Catchment FRASER
04370> #    - To Fraser-Clarke drain (north of the Jock)
04371> #    - Developed land with assumed 43% imp.
04372> #    - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
04373> #    - 2020-12-17 All Fraser is undeveloped (Nashyd)
04374> #*************************************************************************
04375> R0005: C00264-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04376>      CONTINUOUS NASHYD        1.0 01: FRASER-DRN     13.65      .345 No_date   28:22   21.69  .380     .000
04377>        [CN=  77. 0: N=  3. 00: Tp=   .43]
04378>        [IaREC=  4. 00: SMN=  31. 15: SMX=207. 66: SK=  .010]
04379>        [InterEventTime=  12. 00]
04380> R0005: C00265-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04381>      CONTINUOUS NASHYD        1.0 01: FRASER-D       21.61      .397 No_date   28:40   21.69  .380     .000
04382>        [CN=  77. 0: N=  3. 00: Tp=   .67]
04383>        [IaREC=  4. 00: SMN=  31. 15: SMX=207. 66: SK=  .010]
04384>        [InterEventTime=  12. 00]
04385> R0005: C00266-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04386>      ADD HYD                  1.0 02: KB-Pond3     257.04    13.654 No_date   28:13   30.57  n/a     .000
04387>                     +         1.0 02: SN_KB         55.36     1.342 No_date   28:24   21.69  n/a     .000
04388>                     +         1.0 02: FRASER-DRN     13.65      .345 No_date   28:22   21.69  n/a     .000
04389>                     +         1.0 02: FRASER-D       21.61      .397 No_date   28:40   21.69  n/a     .000
04390>                     +         1.0 02: N_KB        54279.33    70.411 No_date   37:42   18.57  n/a     .000
04391>                     +         1.0 02: FC-01-S         8.03      .756 No_date   27:58   32.40  n/a     .000
04392>                     +         1.0 02: FC-02-S        16.05     1.159 No_date   27:47   52.68  n/a     .000
04393>                     +         1.0 02: FC-03-S         7.37      .358 No_date   27:45   39.85  n/a     .000
04394>                   SUM=        1.0 01: 4241       54658.44    70.776 No_date   37:42   18.65  n/a     .000
04395> R0005: C00267-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04396>      SAVE HYD                 1.0 01: 4241       54658.44    70.776 No_date   37:42   18.65  n/a     .000
04397>        fname : 4241. 0005
04398>        remark: Total Flows at Ken-Burnett Outlet
04399> # Hydrograph from Node Ken-Burnett to station 3633
04400> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
04401> #
04402> R0005: C00268-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04403>      ROUTE CHANNEL    -->      1.0 02: 4241       54658.44    70.776 No_date   37:42   18.65  n/a     .000
04404>        [RDT=  1. 00]  out <-    1.0 01: 4241-out   54658.44    70.705 No_date   36:09   18.65  n/a     .000
04405>        [LI S/ n=  294. / . 109/ . 035]
04406>        [Vmax=  1. 100: Dmax=  1. 839]
04407> R0005: C00269-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04408>      ADD HYD                  1.0 02: 4241-out   54658.44    70.705 No_date   36:09   18.65  n/a     .000
04409>                     +         1.0 02: FC-04-S        12.87      .741 No_date   27:48   39.85  n/a     .000
04410>                     +         1.0 02: JR-01-S         8.24      .563 No_date   27:50   40.05  n/a     .000
04411>                     +         1.0 02: JR-02-S         1.59      .153 No_date   27:53   40.12  n/a     .000
04412>                   SUM=        1.0 01: SN_KB      54681.13    70.738 No_date   36:08   18.66  n/a     .000
04413> R0005: C00270-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04414>      SAVE HYD                 1.0 01: SN_KB      54681.13    70.738 No_date   36:08   18.66  n/a     .000
04415>        fname : SN_KB. 0005
04416>        remark: HYD_COMMENT=["Total Flows before Station 3633]
04417> # Hydrograph from Station 3633 to Node Todd
04418> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
04419> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
04420> #
04421> R0005: C00271-------------DTmin-1 D: NHYD ---------AREA ha - QPEAK cms - Tpeak Date_hh:mm ---- RVmm R. C. ---- DWFcms
04422>      ROUTE CHANNEL    -->      1.0 02: SN_KB      54681.13    70.738 No_date   36:08   18.66  n/a     .000
04423>        [RDT=  1. 00]  out <-    1.0 01: N_TO       54681.13    70.709 No_date   36:13   18.66  n/a     .000
04424>        [LI S/ n=  608. / . 247/ . 035]
04425>        [Vmax=  1. 453: Dmax=  1. 382]
04426> #*************************************************************************
04427> #    Catchment Greenbank
04428> #    - To Greenbank Drain (south of the Jock)
04429> #    - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
04430> #    - JFSA 2021-01-19 update area from 37.479 
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04489>          [ XI M=. 52: TI M=. 57]
04490>          [ LOSS= 2 : CN= 77. 0]
04491>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04492>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 868. : MNI =. 013: SCI =   . 0]
04493>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04494>          [ SMI N= 31. 15:  SMX= 207. 66:  SK=  . 010]
04495> R0005: C00280- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04496>          CONTI NUOUS  STANDHYD       1. 0 01: TODD_P          3. 06          . 385 No_date    28: 00    41. 58  . 728      . 000
04497>          [ XI M=. 63: TI M=. 63]
04498>          [ LOSS= 2 : CN= 77. 0]
04499>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04500>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 143. : MNI =. 013: SCI =   . 0]
04501>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04502>          [ SMI N= 31. 15:  SMX= 207. 66:  SK=  . 010]
04503> # 5- Year + 12% Capture
04504> R0005: C00281- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04505>          ROUTE RESERVOI R ->       1. 0 02: TODD_MI          30. 23       2. 959 No_date    28: 02    39. 47  n/ a       . 000
04506> *                  out <=          1. 0 01: TODD_MI n        30. 23       2. 959 No_date    28: 02    39. 47  n/ a       . 000
04507>                     overflow <=     1. 0 03: TODD_MI j         . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04508>          [ MxSt ol ked=. 8948E- 04   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04509> # 5- Year + 12% Capture
04510> R0005: C00282- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04511>          ROUTE RESERVOI R ->       1. 0 02: TODD_MN2         2. 10          . 239 No_date    28: 00    38. 41  n/ a       . 000
04512>                     out <=          1. 0 02: TODD_MN2         2. 10          . 238 No_date    28: 00    38. 41  n/ a       . 000
04513>                     overflow <=     1. 0 03: TODD_MN2          . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04514>          [ MxSt ol ked=. 8965E- 04   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04515> R0005: C00283- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04516>          ROUTE RESERVOI R ->       1. 0 02: TODD_MN3          . 12          . 014 No_date    28: 00    38. 39  n/ a       . 000
04517>                     out <=          1. 0 01: TODD_MN3n        . 12          . 014 No_date    28: 00    38. 39  n/ a       . 000
04518>                     overflow <=     1. 0 02: TODD_MN3j         . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04519>          [ MxSt ol ked=. 8651E- 04   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04520> R0005: C00284- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04521>          CONTI NUOUS  STANDHYD       1. 0 01: A2              1. 50          1. 991 No_date    28: 03    34. 66  . 607      . 000
04522>          [ XI M=. 42: TI M=. 52]
04523>          [ LOSS= 2 : CN= 75. 0]
04524>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04525>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 566. : MNI =. 013: SCI =   . 0]
04526>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04527>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04528> R0005: C00285- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04529>          COMPUTE DUALHYD           1. 0 01: A2              25. 50         1. 991 No_date    28: 03    34. 66  n/ a       . 000
04530>          Maj or System    /        1. 0 02: A2- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04531>          Mi nor System    \        1. 0 03: A2- MN          25. 50         1. 818 No_date    28: 00    34. 70  n/ a       . 000
04532>          [ MJ SySt o=. 5163E+ 02,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04533> R0005: C00286- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04534>          ADD HYD                   +  1. 0 02: TODD_MN2n      2. 10          . 238 No_date    28: 00    38. 41  n/ a       . 000
04535>                                    +  1. 0 02: TODD_MN3n       . 12          . 014 No_date    28: 00    38. 39  n/ a       . 000
04536>                                    +  1. 0 02: TODD_MJ         . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04537>                                    +  1. 0 02: TODD_P          3. 06          . 385 No_date    28: 00    41. 58  n/ a       . 000
04538>                                    +  1. 0 02: TODD_ALL      112. 91         9. 069 No_date    28: 05    38. 19  n/ a       . 000
04539>                                    +  1. 0 02: W_CLAR_Mn       1. 77          . 192 No_date    28: 00    37. 36  n/ a       . 000
04540>                                 SUM=  1. 0 01: TODD          119. 95         9. 538 No_date    28: 04    38. 27  n/ a       . 000
04541> R0005: C00287- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04542>          SAVE HYD                  1. 0 01: TODD            119. 95         9. 538 No_date    28: 04    38. 27  n/ a       . 000
04543>          fname: TODD. 0005
04544>          remark: Total Flows at Todd Drain
04545> #*************************************************************************
04546> #    Todd Pond 3
04547> #     - Rating curve obtained from Barrhaven South MSS modelling
04548> #     - stantec 2007, Tri bal Dry Drainage Area to MSS Pond 3 = 193 ha
04549> #*************************************************************************
04550> R0005: C00288- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04551>          ROUTE RESERVOI R ->       1. 0 02: TODD_MJ         119. 95         9. 538 No_date    28: 04    38. 27  n/ a       . 000
04552>                     out <=          1. 0 01: MS_P3           119. 95         3. 765 No_date    28: 29    38. 27  n/ a       . 000
04553>                     overflow <=     1. 0 03: P3- OVF          . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04554>          [ MxSt ol ked=. 2351E+ 01   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04555> R0005: C00289- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04556>          ADD HYD                   +  1. 0 02: GreenB        54717. 73      70. 826 No_date    36: 13    18. 67  n/ a       . 000
04557>                                    +  1. 0 02: MS_P3         119. 95         3. 765 No_date    28: 29    38. 27  n/ a       . 000
04558>                                    +  1. 0 02: P3- OVF          . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04559>                                    +  1. 0 02: TODD_MNj         . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04560>                                    +  1. 0 02: A2- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04561>                                 SUM=  1. 0 01: SN_TO       54837. 69       71. 097 No_date    36: 12    18. 71  n/ a       . 000
04562> R0005: C00290- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04563>          SAVE HYD                  1. 0 01: SN_TO           54837. 69       71. 097 No_date    36: 12    18. 71  n/ a       . 000
04564>          fname: SN_TO. 0005
04565>          remark: Total Flows at Todd Drain
04566> #
04567> # Hydrograph from Todd Drain routed to Corrigan Drain
04568> # Channel_Xsection obtained from RVCA Hydraulic Model - Station 2462
04569> # 2021- 02- 19 Change the slope from 0. 033 % (as per Stantec Report 2007) to 0. 05 % so the model will be more stable and g
04570> R0005: C00291- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04571>          ROUTE CHANNEL             1. 0 02: N_TO            54837. 69       71. 097 No_date    36: 12    18. 71  n/ a       . 000
04572> *        [ RDT= 1. 00]  out <-     1. 0 01: N_TO            54837. 69       70. 986 No_date    36: 25    18. 71  n/ a       . 000
04573>          [ L/ S/ n=  280. /  . 050/ . 045]
04574>          [ Vmx=   830: Dmx=  2. 582]
04575> R0005: C00292- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04576>          SAVE HYD                  1. 0 01: N_TO            54837. 69       70. 986 No_date    36: 25    18. 71  n/ a       . 000
04577>          fname: N_TO. 0005
04578>          remark: Total inflows at Station 2462
04579> #*************************************************************************
04580> #    Catchment 201 - CORRIG
04581> #     - To Corrigan Drain (south of the Jock)
04582> #     - Primarily Developed (medium density)
04583> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
04584> #*************************************************************************
04585> R0005: C00293- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04586>          CONTI NUOUS  STANDHYD       1. 0 01: corr1           15. 87         1. 806 No_date    28: 01    41. 58  . 728      . 000
04587>          [ XI M=. 63: TI M=. 63]
04588>          [ LOSS= 2 : CN= 77. 0]
04589>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04590>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 325. : MNI =. 013: SCI =   . 0]
04591>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04592>          [ SMI N= 31. 15:  SMX= 207. 66:  SK=  . 010]
04593> R0005: C00294- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04594>          COMPUTE DUALHYD           1. 0 01: corr1           15. 87         1. 806 No_date    28: 01    41. 58  n/ a       . 000
04595>          Maj or System    /        1. 0 02: corr1- MI        . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04596>          Mi nor System    \        1. 0 03: corr1- MN       15. 87         1. 806 No_date    28: 01    41. 58  n/ a       . 000
04597>          [ MJ SySt o=. 0000E+ 00,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04598> R0005: C00295- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04599>          CONTI NUOUS  NASHYD       1. 0 01: corr2           12. 47          . 161 No_date    29: 11    21. 69  . 380      . 000
04600>          [ CN= 77. 0:  N= 3. 00:  Tp=  . 10]
04601>          [ I aREC= 4. 00:  SMI N= 31. 15:  SMX= 207. 66:  SK=  . 010]
04602>          [ I nterEvent Ti me=  12. 00]
04603> R0005: C00296- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04604>          CONTI NUOUS  STANDHYD       1. 0 01: A1- Corrig      15. 75         1. 357 No_date    28: 02    34. 66  . 607      . 000
04605>          [ XI M=. 42: TI M=. 52]
04606>          [ LOSS= 2 : CN= 75. 0]
04607>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04608>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 324. : MNI =. 013: SCI =   . 0]
04609>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04610>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04611> R0005: C00297- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04612>          COMPUTE DUALHYD           1. 0 01: A1- Corrig      15. 75         1. 357 No_date    28: 02    34. 66  n/ a       . 000
04613>          Maj or System    /        1. 0 02: A1- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04614>          Mi nor System    \        1. 0 03: A1- MN          15. 75         1. 357 No_date    28: 02    34. 66  n/ a       . 000
04615>          [ MJ SySt o=. 0000E+ 00,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04616> R0005: C00298- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04617>          CONTI NUOUS  NASHYD       1. 0 01: B1               2. 77          . 055 No_date    28: 09    13. 56  . 237      . 000
04618>          [ CN= 56. 0:  N= 3. 00:  Tp=  . 23]
04619>          [ I aREC= 4. 00:  SMI N= 79. 69:  SMX= 531. 24:  SK=  . 010]
04620>          [ I nterEvent Ti me=  12. 00]
04621> R0005: C00299- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04622>          CONTI NUOUS  STANDHYD       1. 0 01: A4              1. 27          . 153 No_date    28: 00    42. 00  . 735      . 000
04623>          [ XI M=. 65: TI M=. 65]
04624>          [ LOSS= 2 : CN= 75. 0]
04625>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04626>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 253. : MNI =. 013: SCI =   . 0]
04627>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04628>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04629> R0005: C00300- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04630>          COMPUTE DUALHYD           1. 0 01: A4              1. 27          . 153 No_date    28: 00    42. 00  n/ a       . 000
04631>          Maj or System    /        1. 0 02: A4- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04632>          Mi nor System    \        1. 0 03: A4- MN          1. 27          . 153 No_date    28: 00    42. 00  n/ a       . 000
04633>          [ MJ SySt o=. 0000E+ 00,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04634> R0005: C00301- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04635>          ADD HYD                   +  1. 0 02: A1- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04636>                                    +  1. 0 02: A1- MN         15. 75         1. 357 No_date    28: 02    34. 66  n/ a       . 000
04637>                                    +  1. 0 02: corr1- MI        . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04638>                                    +  1. 0 02: corr1- MN      15. 87         1. 806 No_date    28: 01    41. 58  n/ a       . 000
04639>                                    +  1. 0 02: corr2          12. 47          . 161 No_date    29: 11    21. 69  n/ a       . 000
04640>                                    +  1. 0 02: B1              2. 77          . 055 No_date    28: 09    13. 56  n/ a       . 000
04641>                                    +  1. 0 02: A4- MN          1. 27          . 153 No_date    28: 00    42. 00  n/ a       . 000
04642>                                 SUM=  1. 0 01: MH01          48. 13         3. 389 No_date    28: 01    32. 56  n/ a       . 000
04643> R0005: C00302- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04644>          SAVE HYD                  1. 0 01: MH01            48. 13         3. 389 No_date    28: 01    32. 56  n/ a       . 000
04645>          fname: MH01. 0005
04646>          remark: Total Flows at MH01
04647> R0005: C00303- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04648>          ROUTE PI PE               ->      1. 0 02: MH01            48. 13         3. 389 No_date    28: 01    32. 56  n/ a       . 000
04649> *        [ RDT= 1. 00]  out <-     1. 0 01: 101- 102        48. 13         3. 277 No_date    28: 03    32. 56  n/ a       . 000
04650>          [ L/ S/ n=  368. /  . 540/ . 013]
04651>          [ Vmx=  3. 010: Dmx=  1. 049]
04652>          [ Di n=  1. 05: Di ased=  1. 28]
04653> R0005: C00304- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04654>          ADD HYD                   +  1. 0 02: A2- MN         25. 50         1. 818 No_date    28: 00    34. 70  n/ a       . 000
04655>                                    +  1. 0 02: 101- 102       48. 13         3. 277 No_date    28: 03    32. 56  n/ a       . 000
04656>                                 SUM=  1. 0 01: MH02          73. 63         5. 095 No_date    28: 03    33. 30  n/ a       . 000
04657> R0005: C00305- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04658>          SAVE HYD                  1. 0 01: MH02            73. 63         5. 095 No_date    28: 03    33. 30  n/ a       . 000
04659>          fname: MH02. 0005
04660>          remark: Total Flows at MH02
04661> R0005: C00306- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04662>          CONTI NUOUS  STANDHYD       1. 0 01: A5              1. 60          . 202 No_date    28: 01    44. 32  . 776      . 000
04663>          [ XI M=. 71: TI M=. 71]
04664>          [ LOSS= 2 : CN= 75. 0]
04665>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04666>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 300. : MNI =. 013: SCI =   . 0]
04667>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04668>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04669> R0005: C00307- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04670>          ADD HYD                   +  1. 0 02: A4- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04671>                                    +  1. 0 02: A5             1. 60          . 202 No_date    28: 01    44. 32  n/ a       . 000
04672>                                 SUM=  1. 0 01: AST            1. 60          . 202 No_date    28: 01    44. 32  n/ a       . 000
04673> R0005: C00308- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04674>          COMPUTE DUALHYD           1. 0 01: AST             1. 60          . 202 No_date    28: 01    44. 32  n/ a       . 000
04675>          Maj or System    /        1. 0 02: A5- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04676>          Mi nor System    \        1. 0 03: A5- MN          1. 60          . 202 No_date    28: 01    44. 32  n/ a       . 000
04677>          [ MJ SySt o=. 0000E+ 00,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04678> R0005: C00309- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04679>          ROUTE PI PE               ->      1. 0 02: MH02            73. 63         5. 095 No_date    28: 03    33. 30  n/ a       . 000
04680> *        [ RDT= 1. 00]  out <-     1. 0 01: 102- 103        73. 63         4. 821 No_date    28: 05    33. 30  n/ a       . 000
04681>          [ L/ S/ n=  504. /  . 280/ . 013]
04682>          [ Vmx=  2. 606: Dmx=  1. 382]
04683>          [ Di n=  1. 50: Di ased=  1. 68]
04684> R0005: C00310- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04685>          ADD HYD                   +  1. 0 02: 102- 103       73. 63         4. 821 No_date    28: 05    33. 30  n/ a       . 000
04686>                                    +  1. 0 02: A5- MN          1. 60          . 202 No_date    28: 01    44. 32  n/ a       . 000
04687>                                 SUM=  1. 0 01: MH03          75. 23         4. 991 No_date    28: 04    33. 53  n/ a       . 000
04688> R0005: C00311- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04689>          SAVE HYD                  1. 0 01: MH03            75. 23         4. 991 No_date    28: 04    33. 53  n/ a       . 000
04690>          fname: MH03. 0005
04691>          remark: Total Flows at MH03
04692> R0005: C00312- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04693>          ROUTE PI PE               ->      1. 0 02: MH03            75. 23         4. 991 No_date    28: 04    33. 53  n/ a       . 000
04694>          [ RDT= 1. 00]  out <-     1. 0 01: 103- 104        75. 23         4. 875 No_date    28: 06    33. 53  n/ a       . 000
04695>          [ L/ S/ n=  438. /  . 460/ . 013]
04696>          [ Vmx=  3. 219: Dmx=  1. 124]
04697>          [ Di n=  1. 65: Di ased=  1. 65]
04698> R0005: C00313- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04699>          CONTI NUOUS  STANDHYD       1. 0 01: A6              1. 56          . 200 No_date    28: 01    44. 32  . 776      . 000
04700>          [ XI M=. 71: TI M=. 71]
04701>          [ LOSS= 2 : CN= 75. 0]
04702>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04703>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 280. : MNI =. 013: SCI =   . 0]
04704>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04705>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04706> R0005: C00314- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04707>          ADD HYD                   +  1. 0 02: A5- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04708>                                    +  1. 0 02: A6             1. 56          . 200 No_date    28: 01    44. 32  n/ a       . 000
04709>                                 SUM=  1. 0 01: AST            1. 56          . 200 No_date    28: 01    44. 32  n/ a       . 000
04710> R0005: C00315- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04711>          COMPUTE DUALHYD           1. 0 01: AST             1. 56          . 200 No_date    28: 01    44. 32  n/ a       . 000
04712>          Maj or System    /        1. 0 02: A6- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04713>          Mi nor System    \        1. 0 03: A6- MN          1. 56          . 200 No_date    28: 01    44. 32  n/ a       . 000
04714>          [ MJ SySt o=. 0000E+ 00,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04715> R0005: C00316- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04716>          ADD HYD                   +  1. 0 02: A6- MN          1. 56          . 200 No_date    28: 01    44. 32  n/ a       . 000
04717>                                    +  1. 0 02: 103- 104       75. 23         4. 875 No_date    28: 06    33. 53  n/ a       . 000
04718>                                    +  1. 0 02: TODD_Mn        30. 23         2. 959 No_date    28: 02    39. 47  n/ a       . 000
04719>                                 SUM=  1. 0 01: MH04          107. 02         7. 823 No_date    28: 04    35. 37  n/ a       . 000
04720> R0005: C00317- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04721>          SAVE HYD                  1. 0 01: MH04            107. 02         7. 823 No_date    28: 04    35. 37  n/ a       . 000
04722>          fname: MH04. 0005
04723>          remark: Total Flows at MH04
04724> R0005: C00318- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04725>          CONTI NUOUS  STANDHYD       1. 0 01: B2              12. 31         1. 023 No_date    28: 02    34. 82  . 610      . 000
04726>          [ XI M=. 41: TI M=. 54]
04727>          [ LOSS= 2 : CN= 75. 0]
04728>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04729>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 417. : MNI =. 013: SCI =   . 0]
04730>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04731>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04732> R0005: C00319- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04733>          COMPUTE DUALHYD           1. 0 01: B2              12. 31         1. 023 No_date    28: 02    34. 82  n/ a       . 000
04734>          Maj or System    /        1. 0 02: B2- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04735>          Mi nor System    \        1. 0 03: B2- MN          12. 31         1. 023 No_date    28: 02    34. 82  n/ a       . 000
04736>          [ MJ SySt o=. 0000E+ 00,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04737> R0005: C00320- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04738>          ROUTE PI PE               ->      1. 0 02: B2- MN          12. 31         1. 023 No_date    28: 02    34. 82  n/ a       . 000
04739>          [ RDT= 1. 00]  out <-     1. 0 01: 315- 333        12. 31          . 941 No_date    28: 04    34. 82  n/ a       . 000
04740>          [ L/ S/ n=  254. /  . 100/ . 013]
04741>          [ Vmx=  1. 219: Dmx=  . 834]
04742>          [ Di n=  1. 20: Di ased=  1. 20]
04743> R0005: C00321- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04744>          CONTI NUOUS  STANDHYD       1. 0 01: B3              5. 59          . 477 No_date    28: 02    34. 82  . 610      . 000
04745>          [ XI M=. 41: TI M=. 54]
04746>          [ LOSS= 2 : CN= 75. 0]
04747>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04748>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 345. : MNI =. 013: SCI =   . 0]
04749>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04750>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04751> R0005: C00322- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04752>          COMPUTE DUALHYD           1. 0 01: B3              5. 59          . 477 No_date    28: 02    34. 82  n/ a       . 000
04753>          Maj or System    /        1. 0 02: B3- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04754>          Mi nor System    \        1. 0 03: B3- MN          5. 59          . 459 No_date    28: 00    34. 87  n/ a       . 000
04755>          [ MJ SySt o=. 3219E+ 01,  Tot Ovf Vol =. 0000E+ 00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
04756> R0005: C00323- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04757>          ADD HYD                   +  1. 0 02: B3- MN          5. 59          . 459 No_date    28: 00    34. 87  n/ a       . 000
04758>                                    +  1. 0 02: 315- 333       12. 31          . 941 No_date    28: 04    34. 82  n/ a       . 000
04759>                                 SUM=  1. 0 01: MH33          17. 90         1. 400 No_date    28: 04    34. 84  n/ a       . 000
04760> R0005: C00324- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04761>          SAVE HYD                  1. 0 01: MH33            17. 90         1. 400 No_date    28: 04    34. 84  n/ a       . 000
04762>          fname: MH33. 0005
04763>          remark: Total Flows at MH33
04764> R0005: C00325- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04765>          ROUTE PI PE               ->      1. 0 02: MH33            17. 90         1. 400 No_date    28: 04    34. 84  n/ a       . 000
04766> *        [ RDT= 1. 00]  out <-     1. 0 01: 333- 335        17. 90         1. 320 No_date    28: 06    34. 84  n/ a       . 000
04767>          [ L/ S/ n=  251. /  . 100/ . 013]
04768>          [ Vmx=  1. 282: Dmx=  1. 033]
04769>          [ Di n=  1. 20: Di ased=  1. 26]
04770> R0005: C00326- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04771>          ROUTE PI PE               ->      1. 0 02: 333- 335        17. 90         1. 320 No_date    28: 06    34. 84  n/ a       . 000
04772> *        [ RDT= 1. 00]  out <-     1. 0 01: 335- 338        17. 90         1. 265 No_date    28: 06    34. 84  n/ a       . 000
04773>          [ L/ S/ n=  185. /  . 100/ . 013]
04774>          [ Vmx=  1. 264: Dmx=  1. 010]
04775>          [ Di n=  1. 20: Di ased=  1. 23]
04776> R0005: C00327- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04777>          ROUTE PI PE               ->      1. 0 02: 335- 338        17. 90         1. 265 No_date    28: 06    34. 84  n/ a       . 000
04778>          [ RDT= 1. 00]  out <-     1. 0 01: 338- 340        17. 90         1. 183 No_date    28: 06    34. 84  n/ a       . 000
04779>          [ L/ S/ n=  233. /  . 100/ . 013]
04780>          [ Vmx=  1. 294: Dmx=  . 872]
04781>          [ Di n=  1. 35: Di ased=  1. 35]
04782> R0005: C00328- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04783>          CONTI NUOUS  STANDHYD       1. 0 01: B4              7. 60          . 638 No_date    28: 02    34. 82  . 610      . 000
04784>          [ XI M=. 41: TI M=. 54]
04785>          [ LOSS= 2 : CN= 75. 0]
04786>          [ P ervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
04787>          [ I mpervious    area: I Ai mp= 1. 57: SLPI =1. 00: LGI = 388. : MNI =. 013: SCI =   . 0]
04788>          [ I aREC I mp=   4. 00: I aREC per=   4. 00]
04789>          [ SMI N= 33. 81:  SMX= 225. 43:  SK=  . 010]
04790> R0005: C00329- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAK: cms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
04791>          COMPUTE DUALHYD           1. 0 01: B4              7. 60          . 638 No_date    28: 02    34. 82  n/ a       . 000
04792>          Maj or System    /        1. 0 02: B4- MI           . 00          . 000 No_date    0: 00      . 00  n/ a       . 000
04793>          Mi nor System    \        1. 0 03: B4- MN          7. 60          . 638 No_date    
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04863> R0005: C00343-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04864>      DIVERT HYD       ->      1.0 01: MH105          135. 68      9. 064 No_date   28: 05   35. 39   n/a      .000
04865>               diverted <=      1.0 02: MH105- JR       25. 07      6. 058 No_date   28: 05   35. 39   n/a      .000
04866>               diverted <=      1.0 03: MH105- B6      110. 61      3. 006 No_date   28: 05   35. 39   n/a      .000
04867> R0005: C00344-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04868>      CONTINUOUS STANDHYD      1.0 01: B7               7. 19       .661 No_date   28: 01   34. 82   .610     .000
04869>        [ XI M=. 41: TI M=. 54]
04870>        [ LOSS= 2 : CN= 75. 0]
04871>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04872>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 211. : MNI=. 013: SCI=    . 0]
04873>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
04874>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
04875> R0005: C00345-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04876>      ADD HYD                  1.0 02: B4- MI            .00          .000 No_date    0: 00     .00   n/a      .000
04877>                         +     1.0 02: B7               7. 19       .661 No_date   28: 01   34. 82   n/a      .000
04878>                         SUM=  1.0 01: B7- B4MI         7. 19       .661 No_date   28: 01   34. 82   n/a      .000
04879> R0005: C00346-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04880>      COMPUTE DUALHYD          1.0 01: B7- B4MI          7. 19       .661 No_date   28: 01   34. 82   n/a      .000
04881>        Major System   /       1.0 02: B7R- MI            .00          .000 No_date    0: 00     .00   n/a      .000
04882>        Minor System   \       1.0 03: B7R- MN           7. 19       .629 No_date   27: 59   34. 89   n/a      .000
04883>        [ MJ SysSto=. 2655E+01,  To t Vol=. 0000E+00,  N- Vo f=    0,  To t Dur Vo f=    0. hrs]
04884> R0005: C00347-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04885>      ROUTE PIPE               ->      1.0 02: B7R- MN           7. 19       .629 No_date   27: 59   34. 89   n/a      .000
04886>        [ RTDF= 1. 00]  out <-          1.0 01: 360- 106A         7. 19       .615 No_date   28: 05   34. 89   n/a      .000
04887>        [ L/ S/ n=  167. /  . 100/ . 013]
04888>        [ Vmax=  1. 089: Dmax=  . 665]
04889>        [ Di n= 1. 05: Dused= 1. 05]
04890> R0005: C00348-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04891>      CONTINUOUS STANDHYD      1.0 01: B6               3. 29       .315 No_date   28: 00   34. 82   .610     .000
04892>        [ XI M=. 41: TI M=. 54]
04893>        [ LOSS= 2 : CN= 75. 0]
04894>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04895>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 148. : MNI=. 013: SCI=    . 0]
04896>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
04897>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
04898> R0005: C00349-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04899>      COMPUTE DUALHYD          1.0 01: B6               3. 29       .315 No_date   28: 00   34. 82   n/a      .000
04900>        Major System   /       1.0 02: B6- MI             .00          .000 No_date    0: 00     .00   n/a      .000
04901>        Minor System   \       1.0 03: B6- MN            3. 29       .064 No_date   27: 39   34. 87   n/a      .000
04902>        [ MJ SysSto=. 2841E+03,  To t Vol=. 0000E+00,  N- Vo f=    0,  To t Dur Vo f=    0. hrs]
04903> R0005: C00350-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04904>      CONTINUOUS STANDHYD      1.0 01: EX- LAND         32. 50      2. 843 No_date   28: 02   35. 73   .626     .000
04905>        [ XI M=. 50: TI M=. 50]
04906>        [ LOSS= 2 : CN= 74. 0]
04907>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04908>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 465. : MNI=. 013: SCI=    . 0]
04909>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
04910>        [ SM N= 36. 67:  SMXx=244. 49:  SK=  . 010]
04911> R0005: C00351-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04912>      COMPUTE DUALHYD          1.0 01: EX- LAND         32. 50      2. 843 No_date   28: 02   35. 73   n/a      .000
04913>        Major System   /       1.0 02: EX- LAND- MI       .00          .000 No_date    0: 00     .00   n/a      .000
04914>        Minor System   \       1.0 03: EX- LAND- MN      32. 50      2. 275 No_date   27: 57   35. 73   n/a      .000
04915>        [ MJ SysSto=. 2310E+03,  To t Vol=. 0000E+00,  N- Vo f=    0,  To t Dur Vo f=    0. hrs]
04916> R0005: C00352-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04917>      ADD HYD                  1.0 02: B7R- MI            .00          .000 No_date    0: 00     .00   n/a      .000
04918>                         +     1.0 02: EX- LAND- MI       .00          .000 No_date    0: 00     .00   n/a      .000
04919>                         +     1.0 02: B5- MI             .00          .000 No_date    0: 00     .00   n/a      .000
04920>                         +     1.0 02: B6- MI             .00          .000 No_date    0: 00     .00   n/a      .000
04921>                         +     1.0 02: B6- MN            3. 29       .064 No_date   27: 39   34. 87   n/a      .000
04922>                         +     1.0 02: A6- MI- B6         .00          .000 No_date    0: 00     .00   n/a      .000
04923>                         SUM=  1.0 01: B6- B7EXMI        3. 29       .064 No_date   27: 39   34. 87   n/a      .000
04924> R0005: C00353-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04925>      COMPUTE DUALHYD          1.0 01: B6- B7EXMI        3. 29       .064 No_date   27: 39   34. 87   n/a      .000
04926>        Major System   /       1.0 02: B6R- MI            .00          .000 No_date    0: 00     .00   n/a      .000
04927>        Minor System   \       1.0 03: B6R- MN           3. 29       .064 No_date   27: 39   34. 87   n/a      .000
04928>        [ MJ SysSto=. 0000E+00,  To t Vol=. 0000E+00,  N- Vo f=    0,  To t Dur Vo f=    0. hrs]
04929> R0005: C00354-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04930>      ROUTE PIPE               ->      1.0 02: MH105- B6      110. 61      3. 006 No_date   28: 05   35. 39   n/a      .000
04931>        [ RTDF= 1. 00]  out <-          1.0 01: 105- 106A      110. 61      3. 005 No_date   28: 08   35. 39   n/a      .000
04932>        [ L/ S/ n=  208. /  . 100/ . 013]
04933>        [ Vmax=  1. 597: Dmax=  1. 248]
04934>        [ Di n= 1. 80: Dused= 1. 80]
04935> R0005: C00355-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04936>      ADD HYD                  1.0 02: 360- 106A         7. 19       .615 No_date   28: 05   34. 89   n/a      .000
04937>                         +     1.0 02: 105- 106A      110. 61      3. 005 No_date   28: 08   35. 39   n/a      .000
04938>                         +     1.0 02: B6R- MN           3. 29       .064 No_date   27: 39   34. 87   n/a      .000
04939>                         +     1.0 02: B6R- MI            .00          .000 No_date    0: 00     .00   n/a      .000
04940>                         SUM=  1.0 01: MH106A         121. 09      3. 682 No_date   28: 05   35. 35   n/a      .000
04941> R0005: C00356-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04942>      SAVE HYD                 1.0 01: MH106A         121. 09      3. 682 No_date   28: 05   35. 35   n/a      .000
04943>        fname : MH106A 0005
04944>        remark: Total Flows at MH106A
04945> R0005: C00357-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04946>      ROUTE PIPE               ->      1.0 02: MH106A         121. 09      3. 682 No_date   28: 05   35. 35   n/a      .000
04947> *    [ RTDF= 1. 00]  out <-          1.0 01: 106A- 106      121. 09      3. 651 No_date   28: 05   35. 35   n/a      .000
04948>        [ L/ S/ n=  190. /  . 100/ . 013]
04949>        [ Vmax=  1. 633: Dmax=  1. 484]
04950>        [ Di n= 1. 80: Dused= 1. 81]
04951> R0005: C00358-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04952>      CONTINUOUS STANDHYD      1.0 01: A9               2. 44       .316 No_date   28: 00   44. 32   .776     .000
04953>        [ XI M=. 71: TI M=. 71]
04954>        [ LOSS= 2 : CN= 75. 0]
04955>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04956>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 262. : MNI=. 013: SCI=    . 0]
04957>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
04958>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
04959> R0005: C00359-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04960>      COMPUTE DUALHYD          1.0 01: A9               2. 44       .316 No_date   28: 00   44. 32   n/a      .000
04961>        Major System   /       1.0 02: A9- MI             .00          .000 No_date    0: 00     .00   n/a      .000
04962>        Minor System   \       1.0 03: A9- MN            2. 44       .316 No_date   28: 00   44. 32   n/a      .000
04963> R0005: C00360-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04964>      ADD HYD                  1.0 02: 106A- 106      121. 09      3. 651 No_date   28: 05   35. 35   n/a      .000
04965>                         +     1.0 02: A9- MN             2. 44       .316 No_date   28: 00   44. 32   n/a      .000
04966>                         SUM=  1.0 01: MH106          123. 53      3. 896 No_date   28: 03   35. 52   n/a      .000
04967> R0005: C00361-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04968>      SAVE HYD                 1.0 01: MH106          123. 53      3. 896 No_date   28: 03   35. 52   n/a      .000
04969>        fname : MH106. 0005
04970>        remark: Total Flows at MH106
04971> R0005: C00362-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04972>      ROUTE PIPE               ->      1.0 02: MH106          123. 53      3. 896 No_date   28: 03   35. 52   n/a      .000
04973> *    [ RTDF= 1. 00]  out <-          1.0 01: 106- 107       123. 53      3. 814 No_date   28: 07   35. 52   n/a      .000
04974>        [ L/ S/ n=  123. /  . 100/ . 013]
04975>        [ Vmax=  1. 656: Dmax=  1. 516]
04976>        [ Di n= 1. 80: Dused= 1. 85]
04977> R0005: C00363-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04978>      CONTINUOUS STANDHYD      1.0 01: A10              4. 14       .345 No_date   28: 01   32. 29   .565     .000
04979>        [ XI M=. 35: TI M=. 47]
04980>        [ LOSS= 2 : CN= 75. 0]
04981>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04982>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    . 0]
04983>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
04984>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
04985> R0005: C00364-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04986>      COMPUTE DUALHYD          1.0 01: A10              4. 14       .345 No_date   28: 01   32. 29   n/a      .000
04987>        Major System   /       1.0 02: A10- MI            .00          .000 No_date    0: 00     .00   n/a      .000
04988>        Minor System   \       1.0 03: A10- MN           4. 14       .310 No_date   27: 58   32. 34   n/a      .000
04989>        [ MJ SysSto=. 7677E+01,  To t Vol=. 0000E+00,  N- Vo f=    0,  To t Dur Vo f=    0. hrs]
04990> R0005: C00365-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04991>      CONTINUOUS STANDHYD      1.0 01: A11             10. 61      1. 053 No_date   28: 02   38. 79   .679     .000
04992>        [ XI M=. 53: TI M=. 62]
04993>        [ LOSS= 2 : CN= 75. 0]
04994>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04995>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=    . 0]
04996>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
04997>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
04998> R0005: C00366-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
04999>      COMPUTE DUALHYD          1.0 01: A11             10. 61      1. 053 No_date   28: 02   38. 79   n/a      .000
05000>        Major System   /       1.0 02: A11- MI            .00          .000 No_date    0: 00     .00   n/a      .000
05001>        Minor System   \       1.0 03: A11- MN           10. 61       .993 No_date   28: 00   38. 82   n/a      .000
05002>        [ MJ SysSto=. 1280E+02,  To t Vol=. 0000E+00,  N- Vo f=    0,  To t Dur Vo f=    0. hrs]
05003> R0005: C00367-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05004>      ADD HYD                  1.0 02: 106- 107         123. 53      3. 814 No_date   28: 07   35. 52   n/a      .000
05005>                         +     1.0 02: A11- MN           4. 14       .310 No_date   27: 58   32. 34   n/a      .000
05006>                         +     1.0 02: A11- MN           10. 61       .993 No_date   28: 00   38. 82   n/a      .000
05007>                         SUM=  1.0 01: MH107          138. 28      5. 112 No_date   28: 06   35. 68   n/a      .000
05008> R0005: C00368-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05009>      SAVE HYD                 1.0 01: MH107          138. 28      5. 112 No_date   28: 06   35. 68   n/a      .000
05010>        fname : MH107. 0005
05011>        remark: Total Flows at MH107
05012> R0005: C00369-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05013>      ROUTE PIPE               ->      1.0 02: MH107          138. 28      5. 112 No_date   28: 06   35. 68   n/a      .000
05014> *    [ RTDF= 1. 00]  out <-          1.0 01: 107- 119       138. 28      5. 061 No_date   28: 07   35. 68   n/a      .000
05015>        [ L/ S/ n=  114. /  . 120/ . 013]
05016>        [ Vmax=  1. 898: Dmax=  1. 622]
05017>        [ Di n= 1. 80: Dused= 1. 98]
05018> R0005: C00370-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05019>      ROUTE PIPE               ->      1.0 02: 107- 119       138. 28      5. 061 No_date   28: 07   35. 68   n/a      .000
05020> *    [ RTDF= 1. 00]  out <-          1.0 01: 119- 108       138. 28      5. 009 No_date   28: 07   35. 68   n/a      .000
05021>        [ L/ S/ n=   66. /  . 120/ . 013]
05022>        [ Vmax=  1. 893: Dmax=  1. 616]
05023>        [ Di n= 1. 80: Dused= 1. 97]
05024> R0005: C00371-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05025>      CONTINUOUS STANDHYD      1.0 01: A12              12. 29      1. 145 No_date   28: 00   34. 82   .610     .000
05026>        [ XI M=. 41: TI M=. 54]
05027>        [ LOSS= 2 : CN= 75. 0]
05028>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05029>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    . 0]
05030>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
05031>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
05032> R0005: C00372-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05033>      COMPUTE DUALHYD          1.0 01: A12              12. 29      1. 145 No_date   28: 00   34. 82   n/a      .000
05034>        Major System   /       1.0 02: A12- MI            .00          .000 No_date    0: 00     .00   n/a      .000
05035>        Minor System   \       1.0 03: A12- MN           12. 29      1. 029 No_date   27: 57   34. 93   n/a      .000
05036>        [ MJ SysSto=. 2567E+02,  To t Vol=. 0000E+00,  N- Vo f=    0,  To t Dur Vo f=    0. hrs]
05037> R0005: C00373-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05038>      CONTINUOUS STANDHYD      1.0 01: A13              2. 59       .312 No_date   28: 01   44. 32   .776     .000
05039>        [ XI M=. 71: TI M=. 71]
05040>        [ LOSS= 2 : CN= 75. 0]
05041>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05042>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=    . 0]
05043>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
05044>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
05045> R0005: C00374-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05046>      COMPUTE DUALHYD          1.0 01: A13              2. 59       .312 No_date   28: 01   44. 32   n/a      .000
05047>        Major System   /       1.0 02: A13- MI            .00          .000 No_date    0: 00     .00   n/a      .000
05048>        Minor System   \       1.0 03: A13- MN           2. 59       .312 No_date   28: 01   44. 32   n/a      .000
05049> R0005: C00375-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05050>      CONTINUOUS STANDHYD      1.0 01: Pond- Block       2. 94       .261 No_date   28: 00   32. 90 . 576     .000
05051>        [ XI M=. 41: TI M=. 41]
05052>        [ LOSS= 2 : CN= 75. 0]
05053>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05054>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    . 0]
05055>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
05056>        [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
05057> R0005: C00376-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05058>      ADD HYD                  1.0 02: 119- 108         138. 28      5. 009 No_date   28: 07   35. 68   n/a      .000
05059>                         +     1.0 02: A13- MN           2. 59       .312 No_date   28: 01   44. 32   n/a      .000
05060>                         +     1.0 02: A12- MN          12. 29      1. 029 No_date   27: 57   34. 93   n/a      .000
05061>                         SUM=  1.0 01: MH108          153. 16      6. 257 No_date   28: 01   35. 77   n/a      .000
05062> R0005: C00377-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05063>      SAVE HYD                 1.0 01: MH108          153. 16      6. 257 No_date   28: 01   35. 77   n/a      .000
05064>        fname : MH108. 0005
05065>        remark: Total Flows at MH108
05066> R0005: C00378-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05067>      ROUTE PIPE               ->      1.0 02: MH108          153. 16      6. 257 No_date   28: 01   35. 77   n/a      .000
05068> *    [ RTDF= 1. 00]  out <-          1.0 01: 108- 116       153. 16      6. 250 No_date   28: 02   35. 77   n/a      .000
05069>        [ L/ S/ n=   77. /  . 130/ . 013]
05070>        [ Vmax=  2. 057: Dmax=  1. 724]
05071>        [ Di n= 1. 80: Dused= 2. 10]
05072> R0005: C00379-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05073>      ROUTE PIPE               ->      1.0 02: 108- 116       153. 16      6. 250 No_date   28: 02   35. 77   n/a      .000
05074> *    [ RTDF= 1. 00]  out <-          1.0 01: 116- corrig    153. 16      6. 248 No_date   28: 07   35. 77   n/a      .000
05075>        [ L/ S/ n=   80. /  . 130/ . 013]
05076>        [ Vmax=  2. 057: Dmax=  1. 723]
05077>        [ Di n= 1. 80: Dused= 2. 10]
05078> R0005: C00380-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05079>      ADD HYD                  1.0 02: 116- corrig    153. 16      6. 248 No_date   28: 07   35. 77   n/a      .000
05080>                         +     1.0 02: Pond- Block       2. 94       .261 No_date   28: 00   32. 90   n/a      .000
05081>                         SUM=  1.0 01: Corrigan       156. 10      6. 442 No_date   28: 02   35. 71   n/a      .000
05082> R0005: C00381-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05083>      SAVE HYD                 1.0 01: Corrigan       156. 10      6. 442 No_date   28: 02   35. 71   n/a      .000
05084>        fname : Corrigan. 0005
05085>        remark: HYD_COMMENT=[ Total Flows at Corrigan Pond]
05086> R0005: C00382-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05087>      ROUTE RESERVOIR  ->      1.0 02: Corrigan       156. 10      6. 442 No_date   28: 02   35. 71   n/a      .000
05088>                         out <=   1.0 01: Co- P         156. 10      5. 462 No_date   28: 10   35. 71   n/a      .000
05089>                         overflow <=      1.0 03: Co- P- OVF         .00          .000 No_date    0: 00     .00   n/a      .000
05090>        [ MJ StoSked=. 9809E+00  m3,  To t Orf Vo l=. 0000E+00  m3,  N- Orf=    0,  To t Dur Orf=    0. hrs]
05091> R0005: C00383-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05092>      ADD HYD                  1.0 02: Co- P- OVF         .00          .000 No_date    0: 00     .00   n/a      .000
05093>                         +     1.0 02: Co- P            156. 10      5. 462 No_date   28: 10   35. 71   n/a      .000
05094>                         +     1.0 02: N_TO           54837. 69     70. 986 No_date   36: 25   18. 71   n/a      .000
05095>                         +     1.0 02: MH105- JR         25. 07      6. 058 No_date   28: 05   35. 39   n/a      .000
05096>                         +     1.0 02: A8- MI- JR         .00          .000 No_date    0: 00     .00   n/a      .000
05097>                         +     1.0 02: Co- P- MI          .00          .000 No_date    0: 00     .00   n/a      .000
05098>                         +     1.0 02: A10- MI            .00          .000 No_date    0: 00     .00   n/a      .000
05099>                         +     1.0 02: A11- MI            .00          .000 No_date    0: 00     .00   n/a      .000
05100>                         +     1.0 02: A12- MI            .00          .000 No_date    0: 00     .00   n/a      .000
05101>                         +     1.0 02: A13- MI            .00          .000 No_date    0: 00     .00   n/a      .000
05102>                         SUM=  1.0 01: corrig         55018. 86     71. 381 No_date   36: 24   18. 77   n/a      .000
05103> R0005: C00384-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05104>      SAVE HYD                 1.0 01: corrig         55018. 86     71. 381 No_date   36: 24   18. 77   n/a      .000
05105>        fname : corrig. 0005
05106>        remark: Total Flows at Corrigan Pond
05107> #*************************************************************************
05108> #     Corrigan Pond 1
05109> #     - Rating curve obtained from Barrhaven South MSS modeling
05110> #     - Tributary Drainage Area to MSS Pond 1 = 145 ha
05111> #*************************************************************************
05112> #
05113> # Hydrograph from Corrigan Drain routed to Jockvale Road
05114> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
05115> #
05116> R0005: C00385-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05117>      ROUTE CHANNEL            ->      1.0 01: corrig         55018. 86     71. 381 No_date   36: 24   18. 77   n/a      .000
05118>        [ RTDF= 1. 00]  out <-          1.0 01: N_M            55018. 86     71. 374 No_date   36: 27   18. 77   n/a      .000
05119>        [ L/ S/ n=  580. /  . 445/ . 045]
05120>        [ Vmax=  1. 653: Dmax=  1. 484]
05121> #*************************************************************************
05122> #     Catchment M LLS
05123> #     - To SWM Facility north of the Jock
05124> #     - Primarily residental development
05125> #*************************************************************************
05126> R0005: C00386-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05127>      CONTINUOUS STANDHYD      1.0 01: M LLS            175. 99      9. 992 No_date   28: 07   30. 98   .542     .000
05128>        [ XI M=. 38: TI M=. 38]
05129>        [ LOSS= 2 : CN= 74. 0]
05130>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05131>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI=1118. : MNI=. 013: SCI=    . 0]
05132>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
05133>        [ SM N= 36. 67:  SMXx=244. 49:  SK=  . 010]
05134> #*************************************************************************
05135> #     Chapman Mills SWM Pond
05136> #     - Rating curve obtained from CCL hydraulic modeling
05137> #*************************************************************************
05138> R0005: C00387-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05139>      ROUTE RESERVOIR  ->      1.0 02: M LLS            175. 99      9. 992 No_date   28: 07   30. 97   n/a      .000
05140>                         out <=   1.0 01: M LL_P         175. 99      3. 368 No_date   28: 44   30. 97   n/a      .000
05141>                         overflow <=      1.0 02: M LL- OV         .00          .000 No_date    0: 00     .00   n/a      .000
05142>        [ MJ StoSked=. 1941E+01  m3,  To t Orf Vo l=. 0000E+00  m3,  N- Orf=    0,  To t Dur Orf=    0. hrs]
05143> R0005: C00388-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05144>      ADD HYD                  1.0 02: M LL- OV         .00          .000 No_date    0: 00     .00   n/a      .000
05145>                         +     1.0 02: M L- OV            .00          .000 No_date    0: 00     .00   n/a      .000
05146>                         +     1.0 02: M LL_P         175. 99      3. 368 No_date   28: 44   30. 97   n/a      .000
05147>                         SUM=  1.0 01: M LM           55194. 85     71. 782 No_date   36: 25   18. 81   n/a      .000
05148> R0005: C00389-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05149>      SAVE HYD                 1.0 01: SN_M           55194. 85     71. 782 No_date   36: 25   18. 81   n/a      .000
05150>        fname : SN_M. 0005
05151>        remark: Total Flows at Jockvale Road
05152> #
05153> # Hydrograph from Jockvale Road routed to Heart's Desire
05154> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
05155> #
05156> R0005: C00390-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05157>      ROUTE CHANNEL            ->      1.0 02: SN_M           55194. 85     71. 782 No_date   36: 25   18. 81   n/a      .000
05158>        [ RTDF= 1. 00]  out <-          1.0 01: N_DE           55194. 85     71. 600 No_date   36: 43   18. 81   n/a      .000
05159>        [ L/ S/ n=  1962. /  . 223/ . 045]
05160>        [ Vmax=  1. 311: Dmax=  1. 906]
05161> #*************************************************************************
05162> #     Catchment DESIRE
05163> #     - To Jock River (north of the Jock)
05164> #     - Rural-estate subdivision (Heart's Desire Community)
05165> #*************************************************************************
05166> R0005: C00391-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05167>      CONTINUOUS STANDHYD      1.0 01: DESIRE            23. 78       1. 359 No_date   28: 03   27. 22   .477     .000
05168>        [ XI M=. 25: TI M=. 25]
05169>        [ LOSS= 2 : CN= 77. 0]
05170>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05171>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=    . 0]
05172>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
05173>        [ SM N= 31. 15:  SMXx=207. 66:  SK=  . 010]
05174> #*************************************************************************
05175> #     Catchment JOCKVA
05176> #     - To Jockvale SWM Facility
05177> #     - Residential development & golf course
05178> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIGas per IBI GROUP, July 2008.
05179> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
05180> #*************************************************************************
05181> R0005: C00392-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05182>      CONTINUOUS STANDHYD      1.0 01: JOCKVA           225. 13     14. 675 No_date   28: 09   35. 73   .626     .000
05183>        [ XI M=. 50: TI M=. 50]
05184>        [ LOSS= 2 : CN= 74. 0]
05185>        [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05186>        [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=    . 0]
05187>        [ I aREC] mp=    4. 00: I aREC per=    4. 00]
05188>        [ SM N= 36. 67:  SMXx=244. 49:  SK=  . 010]
05189> R0005: C00393-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05190>      ADD HYD                  1.0 02: EX- LAND- MN      32. 50       2. 275 No_date   27: 57   35. 73   n/a      .000
05191>                         +     1.0 02: JOCKVA           225. 13     14. 675 No_date   28: 09   35. 73   n/a      .000
05192>                         +     1.0 02: B2- MI             .00          .000 No_date    0: 00     .00   n/a      .000
05193>                         +     1.0 02: B3- MI             .00          .000 No_date    0: 00     .00   n/a      .000
05194>                         SUM=  1.0 01: JOCKVA- TO       257. 63     16. 950 No_date   28: 09   35. 73   n/a      .000
05195> R0005: C00394-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05196>      SAVE HYD                 1.0 01: JOCKVA- TO         257. 63     16. 950 No_date   28: 09   35. 73   n/a      .000
05197>        fname : JOCKVA- TO. 0005
05198>        remark: Total Flows at KH first pond
05199> #*************************************************************************
05200> #     Jockvale SWM Facility
05201> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
05202> #*************************************************************************
05203> R0005: C00395-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
05204>      ROUTE RESERVOIR  ->      1.0 02: JOCKVA- TO       257. 63     16. 950 No_date   28: 09   35. 73   n/a      .000
05205>                         out <=   1.0 01: JOCK_P         257. 63      4. 781 No_date   28: 48   35. 73   n/a      .000
05206>                         overflow <=      1.0 03: JO OVF         .00          .000 No_date    0: 00     .00   n/a      .000
05207>        [ MJ StoSked=
```

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05237> R0005: C00400-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05238>       ADD HYD                    1. 0 02: NI          55476. 26    72. 207 No_date    36: 46   18. 89   n/ a      . 000
05239>                              +    1. 0 02: S_2           102. 94     2. 262 No_date    28: 20   19. 00   n/ a      . 000
05240>                              SUM=  1. 0 01: SN_NI       55579. 20    72. 356 No_date    36: 46   18. 89   n/ a      . 000
05241> R0005: C00401-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05242>       SAVE HYD                   1. 0 01: SN_NI       55579. 20    72. 356 No_date    36: 46   18. 89   n/ a      . 000
05243>           fname : SN_NI. 0005
05244>           remark: Total Flows at Rideau River
05245> ##############################################################################
05246>    ** END OF RUN :  9
05247>
05248> ****************************************************************************************************
05249>
05250>
05251>
05252>
05253>
05254>  RUN#: COMMAND#
05255> R0010: C00001-------------------------------------------------------------------------------------------
05256>       START
05257>        [TZERO =      .00 hrs on         0]
05258>        [METOUT=   2    (1=imperial, 2=metric output)]
05259>        [NSTORM=   1 ]
05260>        [NRUN  = 0010 ]
05261> #*****************************************************************************
05262> #   SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
05263> #*****************************************************************************
05264> #   Project Name: [Jock River]          Project Number: [1474- 16]
05265> #   Date        : 04- 03- 2021
05266> #   Modeller    : [MM]
05267> #   Company     : JFSAi nc.
05268> #   License #   : 2549237
05269> #*****************************************************************************
05270> # CALIBRATION OF SUMMER MODEL PARAMETERS
05271> # USING CONTINUOUS SIMULATIONS
05272> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
05273> # Use data collected from May 1st to July 14, 2003
05274> # 2020- 11- 30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0. 1 instead of 0. 0001)
05275> # 2020- 12- 01 correct pond curve values
05276> # 2020- 12- 01 change W_CLAR_BRAZ_XIMP to 0. 55,  SLPI=[0. 5]( %)  (impervious slope),  and LGI up to 700m
05277> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"] , NHYDin=["SN_TO"]) from 0. 033 %(as per S
05278> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"] , NHYDin=["SN_CE"]) from 0. 01 %(as per St
05279> # ------------------------------------------------------------------------------
05280> R0010: C00002-------------------------------------------------------------------------------------------
05281>       READ STORM
05282>        Filename = storm. 001
05283>        Comment  = Pluie SCS de 24 hres 1: 10 ans pour Ottawa CDA
05284>        [SDT=10. 00: SDUR=  24. 00: PTOT=  64. 69]
05285> R0010: C00003-------------------------------------------------------------------------------------------
05286>       MODIFY STORM
05287>        [REACT=    1. 00: TSHIFT= 960. 00  min]
05288>        [SDT=10. 00: SDUR=  40. 00: PTOT=  64. 69]
05289> R0010: C00004-------------------------------------------------------------------------------------------
05290>       DEFAULT VALUES
05291>        Filename = T: \PROJ\ 1474- 16\ Design\ 20201026- QuantityControlAnalysis\ SWMHYMO\ SMR- Model\ updated3\ CitiGate. DEF
05292>        ICASEdv  = 1 (read and print data)
05293>        FileTitle= File comment: [Based onvarious calibration exercises in Onta
05294>                   THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
05295>        Horton's infiltration equation parameters:
05296>        [Fo= 76. 20 mm/hr] [Fc=13. 20 mm/hr] [DCAY= 4. 14 /hr] [F=  . 00 mm]
05297>        Parameters for PERVIOUS surfaces in STANDHYD
05298>        [IAper=   4. 67 mm] [LGP=50. 00 m] [MNP=  . 250]
05299>        Parameters for IMPERVIOUS surfaces in STANDHYD:
05300>        [IAimp=   1. 57 mm] [CLI= 1. 50]    [MNI=  . 013]
05301>        Parameters used in NASHYD
05302>        [Ia=    4. 67 mm] [N= 3. 00]
05303>        Average monthly Pan Evaporation data in     (mm)
05304>     JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
05305>    . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
05306>        Average monthly Potential Evapotranspiration in     (mm)
05307>     JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
05308>    . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
05309> R0010: C00005-------------------------------------------------------------------------------------------
05310>       COMPUTE API
05311>        [APIini= 50. 00: APIkdy=  . 8500: APIkdt=  . 9989]
05312>        [APImax= 97. 81: APIavg= 62. 29: APImin= 44. 87]
05313> #
05314> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05315> # of 1. 32
05316> R0010: C00006-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05317>       CONTINUOUS NASHYD          1. 0 01: JR_HW       3680. 00   11. 879 No_date    36: 59   20. 23   . 313      . 000
05318>        [CN= 64. 0: N= 3. 00: Tp=  7. 13]
05319>        [IaREC= 4. 00: SMN=  57. 05: SMX=380. 32: SK=  . 010]
05320>        [InterEventTime=  12. 00]
05321> #
05322> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05323> # of 1. 32
05324> R0010: C00007-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05325>       CONTINUOUS NASHYD          1. 0 01: SW_13        971. 00    4. 365 No_date    32: 35   18. 83   . 291      . 000
05326>        [CN= 61. 0: N= 3. 00: Tp=  3. 76]
05327>        [IaREC= 4. 00: SMN=  64. 50: SMX=430. 01: SK=  . 010]
05328>        [InterEventTime=  12. 00]
05329> #
05330> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05331> # of 1. 80
05332> R0010: C00008-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05333>       CONTINUOUS NASHYD          1. 0 01: JR_GWM      3074. 00    5. 829 No_date    39: 59   16. 22   . 251      . 000
05334>        [CN= 55. 0: N= 3. 00: Tp=11. 33]
05335>        [IaREC= 4. 00: SMN=  83. 24: SMX=554. 96: SK=  . 010]
05336>        [InterEventTime=  12. 00]
05337> R0010: C00009-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05338>       CONTINUOUS NASHYD          1. 0 01: JR_ASH      1781. 00   10. 839 No_date    32: 42   24. 81   . 383      . 000
05339>        [CN= 72. 0: N= 3. 00: Tp=  3. 91]
05340>        [IaREC= 4. 00: SMN=  39. 75: SMX=264. 99: SK=  . 010]
05341>        [InterEventTime=  12. 00]
05342> R0010: C00010-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05343>       CONTINUOUS NASHYD          1. 0 01: SW_11        500. 00    5. 639 No_date    29: 22   21. 19   . 328      . 000
05344>        [CN= 66. 0: N= 3. 00: Tp=  1. 24]
05345>        [IaREC= 4. 00: SMN=  52. 62: SMX=350. 79: SK=  . 010]
05346>        [InterEventTime=  12. 00]
05347> #
05348> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05349> # of 1. 80
05350> R0010: C00011-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05351>       CONTINUOUS NASHYD          1. 0 01: NN_CK       1917. 00    7. 897 No_date    34: 28   21. 19   . 328      . 000
05352>        [CN= 66. 0: N= 3. 00: Tp=  5. 29]
05353>        [IaREC= 4. 00: SMN=  52. 62: SMX=350. 79: SK=  . 010]
05354>        [InterEventTime=  12. 00]
05355> #
05356> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05357> # of 1. 52
05358> R0010: C00012-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05359>       CONTINUOUS NASHYD          1. 0 01: SW_10       5666. 00   21. 255 No_date    37: 58   24. 81   . 383      . 000
05360>        [CN= 72. 0: N= 3. 00: Tp=  8. 00]
05361>        [IaREC= 4. 00: SMN=  39. 75: SMX=264. 99: SK=  . 010]
05362>        [InterEventTime=  12. 00]
05363> #
05364> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05365> # of 1. 75
05366> R0010: C00013-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05367>       CONTINUOUS NASHYD          1. 0 01: KG_CK       8376. 00   20. 398 No_date    39: 59   21. 19   . 328      . 000
05368>        [CN= 66. 0: N= 3. 00: Tp=11. 66]
05369>        [IaREC= 4. 00: SMN=  52. 62: SMX=350. 79: SK=  . 010]
05370>        [InterEventTime=  12. 00]
05371> #
05372> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05373> # of 1. 68
05374> R0010: C00014-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05375>       CONTINUOUS NASHYD          1. 0 01: SW_9        1132. 00    8. 921 No_date    30: 54   23. 73   . 367      . 000
05376>        [CN= 70. 0: N= 3. 00: Tp=  2. 51]
05377>        [IaREC= 4. 00: SMN=  43. 07: SMX=287. 10: SK=  . 010]
05378>        [InterEventTime=  12. 00]
05379> #
05380> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05381> # of 1. 82
05382> R0010: C00015-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05383>       CONTINUOUS NASHYD          1. 0 01: NC_CK       4464. 00   10. 128 No_date    39: 59   19. 29   . 298      . 000
05384>        [CN= 62. 0: N= 3. 00: Tp=11. 32]
05385>        [IaREC= 4. 00: SMN=  61. 90: SMX=412. 66: SK=  . 010]
05386>        [InterEventTime=  12. 00]
05387> #
05388> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05389> # of 1. 80
05390> R0010: C00016-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05391>       CONTINUOUS NASHYD          1. 0 01: SW_8         131. 00    1. 689 No_date    28: 57   19. 76   . 305      . 000
05392>        [CN= 63. 0: N= 3. 00: Tp=  . 90]
05393>        [IaREC= 4. 00: SMN=  59. 42: SMX=396. 11: SK=  . 010]
05394>        [InterEventTime=  12. 00]
05395> #
05396> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05397> # of 1. 65
05398> R0010: C00017-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05399>       CONTINUOUS NASHYD          1. 0 01: HB_DR       3854. 00   11. 811 No_date    38: 37   21. 19   . 328      . 000
05400>        [CN= 66. 0: N= 3. 00: Tp=  8. 42]
05401>        [IaREC= 4. 00: SMN=  52. 62: SMX=350. 79: SK=  . 010]
05402>        [InterEventTime=  12. 00]
05403> #
05404> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05405> # of 1. 82
05406> R0010: C00018-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05407>       CONTINUOUS NASHYD          1. 0 01: SW_7        3197. 00    8. 899 No_date    36: 26   17. 07   . 264      . 000
05408>        [CN= 57. 0: N= 3. 00: Tp=  6. 65]
05409>        [IaREC= 4. 00: SMN=  76. 32: SMX=508. 81: SK=  . 010]
05410>        [InterEventTime=  12. 00]
05411> #
05412> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05413> # of 1. 75
05414> R0010: C00019-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05415>       CONTINUOUS NASHYD          1. 0 01: SW_6         165. 00     . 818 No_date    33: 04   21. 69   . 335      . 000
05416>        [CN= 67. 0: N= 3. 00: Tp=  4. 18]
05417>        [IaREC= 4. 00: SMN=  50. 55: SMX=336. 97: SK=  . 010]
05418>        [InterEventTime=  12. 00]
05419> #
05420> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05421> # of 1. 67
05422> R0010: C00020-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05423>       CONTINUOUS NASHYD          1. 0 01: NG_DR       1332. 00    6. 069 No_date    35: 17   24. 81   . 383      . 000
05424>        [CN= 72. 0: N= 3. 00: Tp=  5. 95]
05425>        [IaREC= 4. 00: SMN=  39. 75: SMX=264. 99: SK=  . 010]
05426>        [InterEventTime=  12. 00]
05427> R0010: C00021-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05428>       CONTINUOUS NASHYD          1. 0 01: SW_5         224. 00    5. 246 No_date    28: 45   28. 24   . 437      . 000
05429>        [CN= 77. 0: N= 3. 00: Tp=  . 75]
05430>        [IaREC= 4. 00: SMN=  31. 15: SMX=207. 66: SK=  . 010]
05431>        [InterEventTime=  12. 00]
05432> #
05433> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05434> # of 1. 20
05435> R0010: C00022-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05436>       CONTINUOUS NASHYD          1. 0 01: FL_CK       4945. 00   28. 945 No_date    33: 21   25. 91   . 401      . 000
05437>        [CN= 74. 0: N= 3. 00: Tp=  4. 45]
05438>        [IaREC= 4. 00: SMN=  36. 67: SMX=244. 49: SK=  . 010]
05439>        [InterEventTime=  12. 00]
05440> R0010: C00023-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05441>       CONTINUOUS NASHYD          1. 0 01: SW_5A2       20. 00      . 614 No_date    28: 36   31. 37   . 485      . 000
05442>        [CN= 81. 0: N= 3. 00: Tp=  . 62]
05443>        [IaREC= 4. 00: SMN=  25. 21: SMX=168. 09: SK=  . 010]
05444>        [InterEventTime=  12. 00]
05445> #
05446> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05447> # of 1. 61
05448> R0010: C00024-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05449>       CONTINUOUS NASHYD          1. 0 01: SW_5AI      1412. 00    5. 817 No_date    37: 54   27. 06   . 418      . 000
05450>        [CN= 75. 0: N= 3. 00: Tp=  3. 00]
05451>        [IaREC= 4. 00: SMN=  33. 81: SMX=225. 43: SK=  . 010]
05452>        [InterEventTime=  12. 00]
05453> R0010: C00025-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05454>       CONTINUOUS NASHYD          1. 0 01: SW_4         585. 00    8. 458 No_date    29: 57   31. 37   . 485      . 000
05455>        [CN= 81. 0: N= 3. 00: Tp=  1. 75]
05456>        [IaREC= 4. 00: SMN=  25. 21: SMX=168. 09: SK=  . 010]
05457>        [InterEventTime=  12. 00]
05458> R0010: C00026-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05459>       CONTINUOUS NASHYD          1. 0 01: LM_CK       1021. 00   11. 195 No_date    30: 48   30. 72   . 475      . 000
05460>        [CN= 80. 0: N= 3. 00: Tp=  2. 46]
05461> [IaREC= 4. 00: SMN= 26. 32: SMX=175. 50: SK=  . 010]
05462>        [InterEventTime=  12. 00]
05463> R0010: C00027-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05464>       CONTINUOUS NASHYD          1. 0 01: SW_2         177. 00    4. 146 No_date    28: 45   28. 24   . 437      . 000
05465>        [CN= 77. 0: N= 3. 00: Tp=  . 75]
05466>        [IaREC= 4. 00: SMN=  31. 15: SMX=207. 66: SK=  . 010]
05467>        [InterEventTime=  12. 00]
05468> R0010: C00028-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05469>       CONTINUOUS NASHYD          1. 0 01: SM_DR       1122. 00   10. 275 No_date    31: 46   31. 37   . 485      . 000
05470>        [CN= 81. 0: N= 3. 00: Tp=  3. 25]
05471>        [IaREC= 4. 00: SMN=  25. 21: SMX=168. 09: SK=  . 010]
05472>        [InterEventTime=  12. 00]
05473> R0010: C00029-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05474>       CONTINUOUS NASHYD          1. 0 01: MD_DR       2737. 00   22. 669 No_date    31: 32   27. 64   . 427      . 000
05475>        [CN= 76. 0: N= 3. 00: Tp=  3. 03]
05476>        [IaREC= 4. 00: SMN=  32. 46: SMX=216. 39: SK=  . 010]
05477>        [InterEventTime=  12. 00]
05478> #
05479> # Routing hydrographs
05480> #
05481> # Starting with the addition of Jock River Headwater and Subwatershed 13
05482> #
05483> R0010: C00030-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05484>       ADD HYD                    1. 0 02: JR_HW       3680. 00   11. 879 No_date    36: 59   20. 23   n/ a      . 000
05485>                              +    1. 0 02: SW_13        971. 00    4. 365 No_date    32: 35   18. 83   n/ a      . 000
05486>                              SUM=  1. 0 01: S_NI3       4651. 00   15. 130 No_date    35: 28   19. 94   n/ a      . 000
05487> #
05488> # Sum of hydrographs from Node 13 routed to Node 13A
05489> # (Approximated cross- section - see cross- section 258)
05490> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
05491> #
05492> R0010: C00031-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05493>       ROUTE CHANNEL      ->    1. 0 02: S_NI3       4651. 00   15. 130 No_date    35: 28   19. 94   n/ a      . 000
05494>        [RDT= 1. 00]  out <-    1. 0 01: NI3A        4651. 00   12. 097 No_date    39: 41   19. 94   n/ a      . 000
05495>        [L/ S/ n= 9074. / . 022/ . 040]
05496>        [Vmax=  . 508: Dmax= 3. 307]
05497> #
05498> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
05499> #
05500> R0010: C00032-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05501>       ADD HYD                    1. 0 02: NI3A        4651. 00   12. 097 No_date    39: 41   19. 94   n/ a      . 000
05502>                              +    1. 0 02: JR_GWM      3074. 00    5. 829 No_date    39: 59   16. 22   n/ a      . 000
05503>                              SUM=  1. 0 01: SNI3A       7725. 00   17. 918 No_date    39: 59   18. 46   n/ a      . 000
05504> #
05505> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
05506> #
05507> R0010: C00033-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05508>       ROUTE RESERVOIR -->       1. 0 02: SNI3A       7725. 00   17. 918 No_date    39: 59   18. 46   n/ a      . 000
05509>                              out <=    1. 0 01: RES_GM      7725. 00    3. 524 No_date    58: 32   18. 46   n/ a      . 000
05510>        [MxStoUsed=  8503E+02  m3]
05511> #
05512> R0010: C00034-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05513>       SAVE HYD                   1. 0 01: RES_GM      7725. 00    3. 524 No_date    58: 32   18. 46   n/ a      . 000
05514>           fname : H_RESGM
05515>           remark: Outflow from Res GM
05516> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
05517> # (Approximated cross- section - see cross- section 258)
05518> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
05519> R0010: C00035-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05520>       ROUTE CHANNEL      ->    1. 0 02: RES_GM      7725. 00    3. 524 No_date    58: 32   18. 46   n/ a      . 000
05521>        [RDT= 1. 00]  out <-    1. 0 01: NI2         7725. 00    3. 519 No_date    61: 53   18. 46   n/ a      . 000
05522>        [L/ S/ n= 5926. / . 076/ . 040]
05523>        [Vmax=  . 546: Dmax= 1. 499]
05524> #
05525> # Addition of Subwatershed Jock River at Ashton to Node 12
05526> #
05527> R0010: C00036-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05528>       ADD HYD                    1. 0 02: NI2         7725. 00    3. 519 No_date    61: 53   18. 46   n/ a      . 000
05529>                              +    1. 0 02: JR_ASH      1781. 00   10. 839 No_date    32: 42   24. 81   n/ a      . 000
05530>                              SUM=  1. 0 01: S_NI2       9506. 00   12. 834 No_date    32: 45   19. 65   n/ a      . 000
05531> R0010: C00037-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05532>       SAVE HYD                   1. 0 01: S_NI2       9506. 00   12. 834 No_date    32: 45   19. 65   n/ a      . 000
05533>           fname : H_SNI2
05534>           remark: flow at S_NI2 near Ashton
05535> #
05536> # Sum of hydrographs from Node 12 routed to Node 11
05537> # (Approximated cross- section - see cross- section 258)
05538> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
05539> #
05540> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
05541> #
05542> R0010: C00038-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05543>       ROUTE CHANNEL      ->    1. 0 02: S_NI2       9506. 00   12. 834 No_date    32: 45   19. 65   n/ a      . 000
05544>        [RDT= 1. 00]  out <-    1. 0 01: Dumi1       9506. 00   12. 710 No_date    33: 02   19. 65   n/ a      . 000
05545>        [L/ S/ n=  972. / . 054/ . 040]
05546>        [Vmax=  . 680: Dmax= 2. 598]
05547> #
05548> # Addition of Subwatershed 11 and No Name Creek to Node 11
05549> #
05550> R0010: C00039-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05551>       ADD HYD                    1. 0 02: Dumi1       9506. 00   12. 710 No_date    33: 02   19. 65   n/ a      . 000
05552>                              +    1. 0 02: SW_11        500. 00    5. 639 No_date    29: 22   21. 19   n/ a      . 000
05553>                              +    1. 0 02: NN_CK       1917. 00    7. 897 No_date    34: 28   21. 19   n/ a      . 000
05554>                              SUM=  1. 0 01: S_NI1       11923. 00   21. 813 No_date    33: 05   19. 96   n/ a      . 000
05555> #
05556> # Sum of hydrographs from Node 11 routed to Node 10
05557> # Section 1
05558> #
05559> R0010: C00040-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05560>       ROUTE CHANNEL      ->    1. 0 02: S_NI1       11923. 00   21. 813 No_date    33: 05   19. 96   n/ a      . 000
05561>        [RDT= 1. 00]  out <-    1. 0 01: NI0         11923. 00   14. 761 No_date    39: 58   19. 96   n/ a      . 000
05562>        [L/ S/ n=14028. / . 157/ . 040]
05563>        [Vmax=  . 452: Dmax= 1. 212]
05564> #
05565> # Addition of Subwatershed 10 to Node 10
05566> #
05567> R0010: C00041-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05568>       ADD HYD                    1. 0 02: NI0         11923. 00   14. 761 No_date    39: 58   19. 96   n/ a      . 000
05569>                              +    1. 0 02: SW_10       5666. 00   21. 255 No_date    37: 58   24. 81   n/ a      . 000
05570>                              SUM=  1. 0 01: S_NI0       17589. 00   35. 808 No_date    38: 35   21. 52   n/ a      . 000
05571> R0010: C00042-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05572>       SAVE HYD                   1. 0 01: S_NI0       17589. 00   35. 808 No_date    38: 35   21. 52   n/ a      . 000
05573>           fname : H_SNI0
05574>           remark: flow at S_NI0:  NI0 + SW_10
05575> # Addition of Kings Creek to S_NI0
05576> #
05577> R0010: C00043-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05578>       ADD HYD                    1. 0 02: S_NI0       17589. 00   35. 808 No_date    38: 35   21. 52   n/ a      . 000
05579>                              +    1. 0 02: KG_CK       8376. 00   20. 398 No_date    39: 59   21. 19   n/ a      . 000
05580>                              SUM=  1. 0 01: S_NI0A      25965. 00   55. 807 No_date    39: 58   21. 41   n/ a      . 000
05581> #
05582> # Sum of hydrographs from Node 10 routed to Node 9
05583> # Section 2
05584> #
05585> R0010: C00044-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05586>       ROUTE CHANNEL      ->    1. 0 02: S_NI0A      25965. 00   55. 807 No_date    39: 58   21. 41   n/ a      . 000
05587>        [RDT= 1. 00]  out <-    1. 0 01: N9          25965. 00   54. 076 No_date    39: 59   21. 41   n/ a      . 000
05588>        [L/ S/ n= 3982. / . 075/ . 040]
05589>        [Vmax=  . 682: Dmax= 1. 695]
05590> #
05591> # Addition of Subwatershed 9 and Nichols Creek to Node 9
05592> #
05593> R0010: C00045-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05594>       ADD HYD                    1. 0 02: N9          25965. 00   54. 076 No_date    39: 59   21. 41   n/ a      . 000
05595>                              +    1. 0 02: SW_9        1132. 00    8. 921 No_date    30: 54   23. 73   n/ a      . 000
05596>                              +    1. 0 02: NC_CK       4464. 00   10. 128 No_date    39: 59   19. 29   n/ a      . 000
05597>                              SUM=  1. 0 01: S_N9        31561. 00   66. 284 No_date    39: 59   21. 20   n/ a      . 000
05598> #
05599> # Sum of hydrographs from Node 9 routed to Node 8
05600> # Section 3
05601> #
05602> R0010: C00046-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05603>       ROUTE CHANNEL      ->    1. 0 02: S_N9        31561. 00   66. 284 No_date    39: 59   21. 20   n/ a      . 000
05604>        [RDT= 1. 00]  out <-    1. 0 01: N8          31561. 00   61. 483 No_date    39: 57   21. 20   n/ a      . 000
05605>        [L/ S/ n= 2269. / . 088/ . 045]
05606>        [Vmax=  . 363: Dmax= 1. 619]
05607> #
05608> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
05609> #
05610> R0010: C00047-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
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05611>     ADD HYD                    1.0 02: N8          31561.00   61.483 No_date   39:57   21.20  n/a     .000
05612>                          +     1.0 02: SW_8          131.00    1.689 No_date   28:57   19.76  n/a     .000
05613>                          +     1.0 02: HB_DR        3854.00   11.811 No_date   38:37   21.19  n/a     .000
05614>                     SUM=       1.0 01: S_N8        35546.00   73.344 No_date   39:57   21.19  n/a     .000
05615> #
05616> # Sum of hydrographs from Node 8 routed to Node 7
05617> # Section 4
05618> #
05619> R0010: C00048------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05620>     ROUTE CHANNEL    ->        1.0 02: S_N8        35546.00   73.344 No_date   39:57   21.19  n/a     .000
05621>      [ RDT= 1.00] out <-       1.0 01: N7          35546.00   61.416 No_date   45:01   21.19  n/a     .000
05622>      [ L/ S/ n= 3750./ . 053/ 070]
05623>      [ Vmx= . 218: Dmx= 1. 987]
05624> #
05625> # Addition of Subwatershed 7 to Node 7
05626> #
05627> R0010: C00049------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05628>     ADD HYD                    1.0 02: N7          35546.00   61.416 No_date   45:01   21.19  n/a     .000
05629>                          +     1.0 02: SW_7         3197.00    8.899 No_date   36:26   17.07  n/a     .000
05630>                     SUM=       1.0 01: S_N7        38743.00   65.819 No_date   44:06   20.85  n/a     .000
05631> R0010: C00050------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05632>     SAVE HYD                   1.0 01: S_N7        38743.00   65.819 No_date   44:06   20.85  n/a     .000
05633>      fname : H_SN7
05634>      remark: flow at S_N7:  N7 + SW_7
05635> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
05636> # Storage area and volumes were estimated from available topo maps.
05637> # Release rate from fen was assumed to be controlled by the downstream
05638> # river cross-section for summer conditions.  It is was assumed that for up to
05639> # 0.75 m of water, the main channel of the river provided the storage.  Above
05640> # this depth, the wetland starts to significantly store water.
05641> #
05642> R0010: C00051------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05643>     ROUTE RESERVOIR  ->        1.0 02: S_N7        38743.00   65.819 No_date   44:06   20.85  n/a     .000
05644>                        out <=      1.0 01: RES_RF   38743.00   31.796 No_date   60:32   20.85  n/a     .000
05645>      [ MxStOlKed= . 2597E+03   m3]
05646> R0010: C00052------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05647>     SAVE HYD                   1.0 01: RES_RF      38743.00   31.796 No_date   60:32   20.85  n/a     .000
05648>      fname : H_ResRF
05649>      remark: outflow of Richmond Fen
05650> #
05651> # Sum of hydrographs from Node 7 routed to Node 6
05652> # Section 5
05653> #
05654> R0010: C00053------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05655>     ROUTE CHANNEL    ->        1.0 02: RES_RF      38743.00   31.796 No_date   60:32   20.85  n/a     .000
05656>      [ RDT= 1.00] out <-       1.0 01: N6          38743.00   31.737 No_date   62:00   20.85  n/a     .000
05657>      [ L/ S/ n= 3056./ . 082/ . 025]
05658>      [ Vmx= . 477: Dmx= . 960]
05659> #
05660> # Addition of Subwatersheds 6 and Van Gaal Drain to Node 6
05661> #
05662> R0010: C00054------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05663>     ADD HYD                    1.0 02: N6          38743.00   31.737 No_date   62:00   20.85  n/a     .000
05664>                          +     1.0 02: SW_6         165.00     .818 No_date   33:04   21.69  n/a     .000
05665>                          +     1.0 02: VG_DR       1332.00    6.069 No_date   35:17   24.81  n/a     .000
05666>                     SUM=       1.0 01: S_N6        40240.01   31.737 No_date   62:00   20.99  n/a     .000
05667> #
05668> # Sum of hydrographs from Node 6 routed to Node 5
05669> # Section 6
05670> #
05671> R0010: C00055------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05672>     ROUTE CHANNEL    ->        1.0 02: S_N6        40240.01   31.737 No_date   62:00   20.99  n/a     .000
05673>      [ RDT= 1.00] out <-       1.0 01: N5          40240.01   31.713 No_date   62:48   20.99  n/a     .000
05674>      [ L/ S/ n= 1852./ . 054/ . 035]
05675>      [ Vmx= . 412: Dmx= 1. 069]
05676> #
05677> # Addition of Subwatershed 5 and Flowing Creek to Node 5
05678> #
05679> R0010: C00056------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05680>     ADD HYD                    1.0 02: N5          40240.01   31.713 No_date   62:48   20.99  n/a     .000
05681>                          +     1.0 02: SW_5         224.00    5.246 No_date   28:45   28.24  n/a     .000
05682>                          +     1.0 02: FL_CK       4945.00   28.945 No_date   33:21   25.91  n/a     .000
05683>                     SUM=       1.0 01: S_N5        45409.01   51.448 No_date   34:54   21.56  n/a     .000
05684> #
05685> # Sum of hydrographs from Node 5 routed to Node 5A
05686> # Section 7
05687> #
05688> R0010: C00057------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05689>     ROUTE CHANNEL    ->        1.0 02: S_N5        45409.01   51.448 No_date   34:54   21.56  n/a     .000
05690>      [ RDT= 1.00] out <-       1.0 01: N5A         45409.01   51.312 No_date   35:12   21.56  n/a     .000
05691>      [ L/ S/ n=  556./ . 090/ . 040]
05692>      [ Vmx= . 485: Dmx= 1. 131]
05693> #
05694> # Addition of Subwatershed 5Al and Subwatershed 5A2 to Node 5A
05695> #
05696> R0010: C00058------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05697>     ADD HYD                    1.0 02: N5A         45409.01   51.312 No_date   35:12   21.56  n/a     .000
05698>                          +     1.0 02: SW_5A2        20.00     .614 No_date   28:36   31.37  n/a     .000
05699>                          +     1.0 02: SW_5Al      1412.00    5.817 No_date   37:54   27.06  n/a     .000
05700>                     SUM=       1.0 01: S_N5A       46841.01   56.788 No_date   35:22   21.73  n/a     .000
05701> #
05702> # Sum of hydrographs from Node 5A routed to Node 4
05703> # Section 8
05704> #
05705> R0010: C00059------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05706>     ROUTE CHANNEL    ->        1.0 02: S_N5A       46841.01   56.788 No_date   35:22   21.73  n/a     .000
05707>      [ RDT= 1.00] out <-       1.0 01: N4          46841.01   54.543 No_date   36:56   21.73  n/a     .000
05708>      [ L/ S/ n= 4630./ . 043/ . 035]
05709>      [ Vmx= . 793: Dmx= 3. 295]
05710> #
05711> # Addition of Subwatershed 4 and Leamy Creek to Node 4
05712> #
05713> R0010: C00060------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05714>     ADD HYD                    1.0 02: N4          46841.01   54.543 No_date   36:56   21.73  n/a     .000
05715>                          +     1.0 02: SW_4         585.00    8.458 No_date   29:57   31.37  n/a     .000
05716>                          +     1.0 02: LM_CK       1021.00   11.195 No_date   30:48   30.72  n/a     .000
05717>                     SUM=       1.0 01: S_N4        48447.00   59.934 No_date   36:12   22.03  n/a     .000
05718> R0010: C00061------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05719>     SAVE HYD                   1.0 01: S_N4        48447.00   59.934 No_date   36:12   22.03  n/a     .000
05720>      fname : S_N4. 0010
05721>      remark: flow at S_N4
05722> #
05723> # Sum of hydrographs from Node 4 routed to Node 2
05724> # Section 9
05725> #
05726> R0010: C00062------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05727>     ROUTE CHANNEL    ->        1.0 02: S_N4        48447.00   59.934 No_date   36:12   22.03  n/a     .000
05728>      [ RDT= 1.00] out <-       1.0 01: N2          48447.00   59.699 No_date   36:35   22.03  n/a     .000
05729>      [ L/ S/ n= 1667./ . 060/ . 040]
05730>      [ Vmx= . 824: Dmx= 3. 325]
05731> #
05732> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
05733> #
05734> R0010: C00063------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05735>     ADD HYD                    1.0 02: N2          48447.00   59.699 No_date   36:35   22.03  n/a     .000
05736>                          +     1.0 02: SW_2         177.00    4.146 No_date   28:45   28.24  n/a     .000
05737>                          +     1.0 02: SM_DR       1122.00   10.275 No_date   31:46   31.37  n/a     .000
05738>                          +     1.0 02: MO_DR       2737.00   22.669 No_date   31:32   27.64  n/a     .000
05739>                     SUM=       1.0 01: S_N2        52483.00   83.235 No_date   33:15   22.55  n/a     .000
05740> R0010: C00064------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05741>     SAVE HYD                   1.0 01: S_N2        52483.00   83.235 No_date   33:15   22.55  n/a     .000
05742>      fname : H_SN2
05743>      remark: flow at S_N2 Jock River Gauge at Moodie Dr.
05744> #
05745> # Sum of hydrographs from Node 2 routed to Node 1
05746> # Section 10
05747> #
05748> #*******************************************************************************
05749> #
05750> # Hydrograph from Node 2 routed to Node 416
05751> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
05752> #
05753> R0010: C00065------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05754>     ROUTE CHANNEL    ->        1.0 02: S_N2        52483.00   83.235 No_date   33:15   22.55  n/a     .000
05755>      [ RDT= 1.00] out <-       1.0 01: N_416       52483.00   81.216 No_date   34:18   22.55  n/a     .000
05756>      [ L/ S/ n= 2327./ . 050/ . 055]
05757>      [ Vmx= . 705: Dmx= 2. 943]
05758> #*******************************************************************************
05759> #    Catchment SW1a
05760> #    - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
05761> #    - Undeveloped agricultural land
05762> #*******************************************************************************
05763> R0010: C00066------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05764>     CONTINUOUS NASHYD          1.0 01: SW_1a       536.42    3.888 No_date   31:17   23.57  .364     .000
05765>      [ CN= 72.0: N= 3.00: Tp= 2. 79]
05766>      [ IaREC= 4. 00: SM N= 39. 75: SMX= 264. 99:  SK= . 010]
05767>      [ InterEventTime= 12.00]
05768> R0010: C00067------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05769>     CONTINUOUS NASHYD          1.0 01: S-1-Okeefe   44.93     .778 No_date   29:07   26.85  .415     .000
05770>      [ CN= 77.0: N= 3.00: Tp= 1. 051]
05771>      [ IaREC= 4. 00: SM N= 31. 15: SMX= 207. 66:  SK= . 010]
05772>      [ InterEventTime= 12.00]
05773> R0010: C00068------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05774>     ADD HYD                    1.0 02: N_416       52483.00   81.216 No_date   34:18   22.55  n/a     .000
05775>                          +     1.0 02: SW_1a        536.42    3.888 No_date   31:17   23.57  n/a     .000
05776>                          +     1.0 02: S-1-Okeefe    44.93     .778 No_date   29:07   26.85  n/a     .000
05777>                     SUM=       1.0 01: SN_416      53064.36   84.151 No_date   33:41   22.56  n/a     .000
05778> R0010: C00069------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05779>     SAVE HYD                   1.0 01: SN_416      53064.36   84.151 No_date   33:41   22.56  n/a     .000
05780>      fname : SN_416. 0010
05781>      remark: Total Flows at Highway 416
05782> #
05783> # Hydrograph from Node 416 routed to Node at Okeefe drain
05784> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
05785> #
05786> R0010: C00070------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05787>     ROUTE CHANNEL    ->        1.0 02: SN_416      53064.36   84.151 No_date   33:41   22.56  n/a     .000
05788>      [ RDT= 1.00] out <-       1.0 01: N_OK        53064.36   84.059 No_date   34:06   22.56  n/a     .000
05789>      [ L/ S/ n=  497./ . 302/ . 055]
05790>      [ Vmx= 1. 450: Dmx= 2. 495]
05791> #*******************************************************************************
05792> #    Catchment OKEEFE
05793> #    - To O'Keefe drain (north of the Jock)
05794> #    - Developed with assumed 43% imp.
05795> #    - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
05796> #    - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
05797> #*******************************************************************************

05798> R0010: C00071------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05799>     CONTINUOUS NASHYD          1.0 01: O-1          63.72     .684 No_date   28:58   17.24  .266     .000
05800>      [ CN= 61.0: N= 3.00: Tp=  . 90]
05801>      [ IaREC= 4. 00:  SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
05802>      [ InterEventTime= 12.00]
05803> R0010: C00072------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05804>     ROUTE CHANNEL    ->        1.0 02: O-1          63.72     .684 No_date   28:58   17.24  n/a     .000
05805>      [ RDT= 1.00] out <-       1.0 01: O-1R         63.72     .637 No_date   29:17   17.24  n/a     .000
05806>      [ L/ S/ n=  960./ . 630/ . 043]
05807>      [ Vmx= . 755: Dmx= . 334]
05808> R0010: C00073------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05809>     CONTINUOUS NASHYD          1.0 01: O-2          28.61     .242 No_date   29:13   16.01  .248     .000
05810>      [ CN= 57.0: N= 3.00: Tp= 1. 10]
05811>      [ IaREC= 4. 00:  SM N= 76. 32:  SMX= 508. 81:  SK= . 010]
05812>      [ InterEventTime= 12.00]
05813> R0010: C00074------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05814>     CONTINUOUS NASHYD          1.0 01: O-4          46.94     .303 No_date   29:00   12.15  .188     .000
05815>      [ CN= 49.0: N= 3.00: Tp=  . 90]
05816>      [ IaREC= 4. 00:  SM N= 104. 59:  SMX= 697. 25:  SK= . 010]
05817>      [ InterEventTime= 12.00]
05818> R0010: C00075------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05819>     ADD HYD                    1.0 02: O-1R         63.72     .637 No_date   29:17   17.24  n/a     .000
05820>                          +     1.0 02: O-2          28.61     .242 No_date   29:13   16.01  n/a     .000
05821>                          +     1.0 02: O-4          46.94     .303 No_date   29:00   12.15  n/a     .000
05822>                     SUM=       1.0 01: OKF-N       139.27    1.172 No_date   29:12   15.27  n/a     .000
05823> R0010: C00076------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05824>     ROUTE CHANNEL    ->        1.0 02: OKF-N       139.27    1.172 No_date   29:12   15.27  n/a     .000
05825>      [ RDT= 1.00] out <-       1.0 01: OKF-NR      139.27    1.170 No_date   29:16   15.27  n/a     .000
05826>      [ L/ S/ n=  210./ . 810/ . 043]
05827>      [ Vmx=  916: Dmx= . 609]
05828> R0010: C00077------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05829>     CONTINUOUS NASHYD          1.0 01: O-6          16.46     .101 No_date   28:45   10.60  .164     .000
05830>      [ CN= 43.0: N= 3.00: Tp=  . 70]
05831>      [ IaREC= 4. 00:  SM N= 134. 47:  SMX= 896. 47:  SK= . 010]
05832>      [ InterEventTime= 12.00]
05833> R0010: C00078------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05834>     CONTINUOUS NASHYD          1.0 01: O-3          39.67     .767 No_date   28:24   19.36  .299     .000
05835>      [ XIMP= . 15: TIMP= . 30]
05836>      [ LOSS= 2 : CN= 50. 0]
05837>      [ Pervious        area:  1 Aper= 4. 67: SLPP= . 32: LGP= 440. : MNP= . 035: SCP=    .0]
05838>      [ Impervious      area:  1 Aimp= 1. 57: SLPI= . 32: LGI= 1880. : MNI= . 013: SCI=    .0]
05839>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05840>      [ SM N= 99. 77:  SMX= 665. 12:  SK= . 010]
05841> R0010: C00079------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05842>     CONTINUOUS STANDHYD        1.0 01: O-5          60.63    1.881 No_date   28:10   22.00  .340     .000
05843>      [ XIMP= . 13: TIMP= . 26]
05844>      [ LOSS= 2 : CN= 61. 0]
05845>      [ Pervious        area:  1 Aper= 4. 67: SLPP=1. 38: LGP= 550. : MNP= . 035: SCP=    .0]
05846>      [ Impervious      area:  1 Aimp= 1. 57: SLPI=1. 38: LGI=1450. : MNI= . 013: SCI=    .0]
05847>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05848>      [ SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
05849> R0010: C00080------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05850>     ADD HYD                    1.0 02: OKF-NR      139.27    1.170 No_date   29:16   15.27  n/a     .000
05851>                          +     1.0 02: O-3          39.67     .767 No_date   28:24   19.36  n/a     .000
05852>                          +     1.0 02: O-5          60.63    1.881 No_date   28:10   22.00  n/a     .000
05853>                          +     1.0 02: O-6          16.46     .101 No_date   28:45   10.60  n/a     .000
05854>                     SUM=       1.0 01: PT1         256.03    3.008 No_date   28:23   17.20  n/a     .000
05855> R0010: C00081------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05856>     CONTINUOUS NASHYD          1.0 01: O-7          5.28     .056 No_date   28:37   14.05  .217     .000
05857>      [ CN= 54.0: N= 3.00: Tp=  . 60]
05858>      [ IaREC= 4. 00:  SM N= 87. 01:  SMX= 580. 07:  SK= . 010]
05859>      [ InterEventTime= 12.00]
05860> R0010: C00082------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05861>     ADD HYD                    1.0 02: PT1         256.03    3.008 No_date   28:23   17.20  n/a     .000
05862>                          +     1.0 02: O-7          5.28     .056 No_date   28:37   14.05  n/a     .000
05863>                     SUM=       1.0 01: FF          261.31    3.058 No_date   28:23   17.14  n/a     .000
05864> R0010: C00083------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05865>     ROUTE CHANNEL    ->        1.0 02: FF          261.31    3.058 No_date   28:23   17.14  n/a     .000
05866>      [ RDT= 1.00] out <-       1.0 01: DRAI NI     261.31    2.972 No_date   28:31   17.14  n/a     .000
05867>      [ L/ S/ n=  302./ 1. 000/ . 043]
05868>      [ Vmx=  . 783: Dmx= . 667]
05869> R0010: C00084------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05870>     CONTINUOUS NASHYD          1.0 01: DI           1.17     .058 No_date   28:12   29.30  .453     .000
05871>      [ CN= 84.0: N= 3.00: Tp=  . 28]
05872>      [ IaREC= 4. 00:  SM N= 21. 09:  SMX= 140. 62:  SK= . 010]
05873>      [ InterEventTime= 12.00]
05874> R0010: C00085------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05875>     CONTINUOUS STANDHYD        1.0 01: Al           2.50     .391 No_date   28:01   50.29  .777     .000
05876>      [ XIMP= . 68: TIMP= . 85]
05877>      [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= . 00]
05878>      [ Pervious        area:  1 Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    .0]
05879>      [ Impervious      area:  1 Aimp= 1. 57: SLPI=  . 50: LGI=  224. : MNI= . 013: SCI=    .0]
05880>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05881> R0010: C00086------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05882>     ROUTE RESERVOIR  ->        1.0 02: Al           2.50     .391 No_date   28:01   50.29  n/a     .000
05883>                        out <=      1.0 01: Al- STR    2.50     .098 No_date   28:24   50.29  n/a     .000
05884>                        overflow <=     1.0 03: Al- OVF     .00    .000 No_date   0:00     .00  n/a     .000
05885>      [ MxStOlKed= . 5829E- 01   m3,  Tot Ovf Vol= . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf=     0. hrs]
05886> R0010: C00087------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05887>     CONTINUOUS STANDHYD        1.0 01: ST- 2         .59     .075 No_date   28:00   38.69  .598     .000
05888>      [ XIMP= . 46: TIMP= . 57]
05889>      [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= . 00]
05890>      [ Pervious        area:  1 Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    .0]
05891>      [ Impervious      area:  1 Aimp= 1. 57: SLPI=  . 50: LGI=  109. : MNI= . 013: SCI=    .0]
05892>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05893> R0010: C00088------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05894>     ROUTE RESERVOIR  ->        1.0 02: ST- 2         .59     .075 No_date   28:00   38.69  n/a     .000
05895>                        out <=      1.0 01: ST2STR     .59     .052 No_date   28:05   38.69  n/a     .000
05896>                        overflow <=     1.0 03: ST2OVF     .00    .000 No_date   0:00     .00  n/a     .000
05897>      [ MxStOlKed= . 1835E- 02   m3,  Tot Ovf Vol= . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf=     0. hrs]
05898> R0010: C00089------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05899>     CONTINUOUS NASHYD          1.0 01: O-8          60.55     .857 No_date   29:04   22.40  .346     .000
05900>      [ CN= 69.0: N= 3.00: Tp= 1. 00]
05901>      [ IaREC= 4. 00:  SM N= 44. 52:  SMX= 298. 82:  SK= . 010]
05902>      [ InterEventTime= 12.00]
05903> R0010: C00090------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05904>     ROUTE PI PE      ->        1.0 02: O-8          60.55     .857 No_date   29:04   22.40  n/a     .000
05905>      [ RDT= 1.00] out <-       1.0 01: OKPI PE      60.55     .852 No_date   29:08   22.40  n/a     .000
05906>      [ L/ S/ n=  335./ . 100/ . 013]
05907>      [ Vmx= 1. 080: Dmx=  . 441]
05908>      [ HGT H= 1. 20: WDT H= 1. 80]
05909> R0010: C00091------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05910>     ADD HYD                    1.0 02: DRAI NI     261.31    2.972 No_date   28:31   17.14  n/a     .000
05911>                          +     1.0 02: DI           1.17     .058 No_date   28:12   29.30  n/a     .000
05912>                          +     1.0 02: Al- STR      2.50     .098 No_date   28:24   50.29  n/a     .000
05913>                          +     1.0 02: Al- OVF       .00    .000 No_date   0:00     .00  n/a     .000
05914>                          +     1.0 02: ST2STR        .59    .052 No_date   28:05   38.69  n/a     .000
05915>                          +     1.0 02: ST2OVF        .00    .000 No_date   0:00     .00  n/a     .000
05916>                          +     1.0 02: OKPI PE     60.55     .852 No_date   29:08   22.40  n/a     .000
05917>                     SUM=       1.0 01: ST2- 1N     326.12    3.771 No_date   28:40   18.45  n/a     .000
05918> R0010: C00092------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05919>     CONTINUOUS STANDHYD        1.0 01: A7           3.51     .538 No_date   28:01   50.29  .777     .000
05920>      [ XIMP= . 68: TIMP= . 85]
05921>      [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= . 00]
05922>      [ Pervious        area:  1 Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    .0]
05923>      [ Impervious      area:  1 Aimp= 1. 57: SLPI=  . 50: LGI=  265. : MNI= . 013: SCI=    .0]
05924>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05925> R0010: C00093------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05926>     ROUTE RESERVOIR  ->        1.0 02: A7           3.51     .538 No_date   28:01   50.29  n/a     .000
05927>                        out <=      1.0 01: A7- STR    3.51     .139 No_date   28:25   50.29  n/a     .000
05928>                        overflow <=     1.0 03: A7- OVF     .00    .000 No_date   0:00     .00  n/a     .000
05929>      [ MxStOlKed= . 8167E- 01   m3,  Tot Ovf Vol= . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf=     0. hrs]
05930> R0010: C00094------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05931>     CONTINUOUS STANDHYD        1.0 01: ST- 3         .71     .089 No_date   28:00   38.69  .598     .000
05932>      [ XIMP= . 46: TIMP= . 57]
05933>      [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= . 00]
05934>      [ Pervious        area:  1 Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    .0]
05935>      [ Impervious      area:  1 Aimp= 1. 57: SLPI=  . 50: LGI=  119. : MNI= . 013: SCI=    .0]
05936>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05937> R0010: C00095------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05938>     ROUTE RESERVOIR  ->        1.0 02: ST- 3         .71     .089 No_date   28:00   38.69  n/a     .000
05939>                        out <=      1.0 01: ST3STR     .71     .063 No_date   28:05   38.69  n/a     .000
05940>                        overflow <=     1.0 03: ST3OVF      .00    .000 No_date   0:00     .00  n/a     .000
05941>      [ MxStOlKed= . 1988E- 02   m3,  Tot Ovf Vol= . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf=     0. hrs]
05942> R0010: C00096------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05943>     ADD HYD                    1.0 02: ST2- 1N     326.12    3.771 No_date   28:40   18.45  n/a     .000
05944>                          +     1.0 02: A7- STR      3.51     .139 No_date   28:25   50.29  n/a     .000
05945>                          +     1.0 02: A7- OVF       .00    .000 No_date   0:00     .00  n/a     .000
05946>                          +     1.0 02: ST3STR        .71    .063 No_date   28:05   38.69  n/a     .000
05947>                          +     1.0 02: ST3OVF        .00    .000 No_date   0:00     .00  n/a     .000
05948>                     SUM=       1.0 01: PT2ST3      330.34    3.914 No_date   28:39   18.83  n/a     .000
05949> R0010: C00097------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05950>     ROUTE CHANNEL    ->        1.0 02: PT2ST3      330.34    3.914 No_date   28:39   18.83  n/a     .000
05951>      [ RDT= 1.00] out <-       1.0 01: DRAI N2     330.34    3.640 No_date   29:01   18.83  n/a     .000
05952>      [ L/ S/ n=  592./ . 230/ . 043]
05953>      [ Vmx=  . 582: Dmx= 1. 002]
05954> R0010: C00098------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05955>     CONTINUOUS NASHYD          1.0 01: D2           2.28     .046 No_date   29:04   29.30  .453     .000
05956>      [ CN= 84.0: N= 3.00: Tp=  . 99]
05957>      [ IaREC= 4. 00:  SM N= 21. 09:  SMX= 140. 62:  SK= . 010]
05958>      [ InterEventTime= 12.00]
05959> R0010: C00099------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05960>     CONTINUOUS STANDHYD        1.0 01: Al7          12.04    1.618 No_date   28:04   50.29  .777     .000
05961>      [ XIMP= . 68: TIMP= . 85]
05962>      [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= . 00]
05963>      [ Pervious        area:  1 Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    .0]
05964>      [ Impervious      area:  1 Aimp= 1. 57: SLPI=  . 50: LGI=  491. : MNI= . 013: SCI=    .0]
05965>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05966> R0010: C00100------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05967>     ROUTE RESERVOIR  ->        1.0 02: Al7          12.04    1.618 No_date   28:04   50.29  n/a     .000
05968>                        out <=      1.0 01: Al7STR     12.04     .460 No_date   28:31   50.29  n/a     .000
05969>                        overflow <=     1.0 03: Al7OVF      .00    .000 No_date   0:00     .00  n/a     .000
05970>      [ MxStOlKed= . 2771E+00   m3,  Tot Ovf Vol= . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf=     0. hrs]
05971> R0010: C00101------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05972>     CONTINUOUS STANDHYD        1.0 01: ST- 4         .35     .046 No_date   28:00   38.69  .598     .000
05973>      [ XIMP= . 46: TIMP= . 57]
05974>      [ Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= . 00]
05975>      [ Pervious        area:  1 Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    .0]
05976>      [ Impervious      area:  1 Aimp= 1. 57: SLPI=  . 50: LGI=  84. : MNI= . 013: SCI=    .0]
05977>      [ IaRECimp=    4. 00:  IaRECper=    4. 00]
05978> R0010: C00102------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05979>     ROUTE RESERVOIR  ->        1.0 02: ST- 4         .35     .046 No_date   28:00   38.69  n/a     .000
05980>                        out <=      1.0 01: ST4STR     .35     .031 No_date   28:04   38.69  n/a     .000
05981>                        overflow <=     1.0 03: ST4OVF      .00    .000 No_date   0:00     .00  n/a     .000
05982>      [ MxStOlKed= . 1424E- 02   m3,  Tot Ovf Vol= . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf=     0. hrs]
05983> R0010: C00103------------DTmin: 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05984>     CONTINUOUS STANDHYD        1.0 01: Al8          5.30     .780 No_date   28:02   50.29  .777     .000
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05985>      [ XI M=. 68: TI MP=. 85]
05986>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
05987>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50.: MNP=. 250: SCP=    .0]
05988>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =  326.: MNI =. 013: SCI =    .0]
05989>      [ I aREG mp=     4. 00:  I aREC per=     4. 00]
05990> R0010: C00104- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
05991>      ROUTE RESERVOI R -> .          1. 0 02: AI 8          5. 30        . 780 No_date   28: 02    50. 29   n/ a      .000
05992>                  out <=          1. 0 01: AI 8STR        5. 30        . 206 No_date   28: 27    50. 29   n/ a      .000
05993>              overflow <=         1. 0 03: AI 8OVF          .00        . 000 No_date   0: 00      .00   n/ a      .000
05994>      [ MI stOl ked=. 1232E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
05995> R0010: C00105- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
05996>      ADD HYD .                      1. 0 02: DRAI N2       330. 34      3. 640 No_date   28: 01    18. 83   n/ a      .000
05997>                          +          1. 0 02: D2              2. 28        . 046 No_date   29: 04    29. 30   n/ a      .000
05998>                          +          1. 0 02: AI 7STR        12. 04        . 460 No_date   28: 31    50. 29   n/ a      .000
05999>                          +          1. 0 02: AI 7OVF          .00        . 000 No_date   0: 00      .00   n/ a      .000
06000>                          +          1. 0 02: ST4STR           .35        . 031 No_date   28: 04    38. 69   n/ a      .000
06001>                          +          1. 0 02: ST4OVF           .00        . 000 No_date   0: 00      .00   n/ a      .000
06002>                          +          1. 0 02: AI 8STR        5. 30        . 206 No_date   28: 27    50. 29   n/ a      .000
06003>                          +          1. 0 02: AI 8OVF          .00        . 000 No_date   0: 00      .00   n/ a      .000
06004>                      SUM=           1. 0 01: PT3ST4         350. 31      4. 213 No_date   28: 57    20. 48   n/ a      .000
06005> R0010: C00106- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06006>      ROUTE CHANNEL .        ->      1. 0 02: PT3ST4         350. 31      4. 213 No_date   28: 57    20. 48   n/ a      .000
06007>      [ RDT=  1. 00]  out <-         1. 0 01: DRAI N3        350. 31      4. 037 No_date   29: 17    20. 48   n/ a      .000
06008>      [ L/ S=  n=    525. /  . 230/ . 043]
06009>      [ Vmx=  n=    . 606: Dmx=  n=  1. 049]
06010> R0010: C00107- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06011>      CONTI NUOUS NASHYD .           1. 0 01: D3              2. 51        . 072 No_date   28: 44    32. 13   . 497     .000
06012>      [ CN=  86. 0:  N=  3. 00:  Tp=     . 73]
06013>      [ I aREC=  4. 00:  SMI N=  17. 43:  SMAX=  116. 21:  SK=  . 010]
06014>      [ I nterEvent Ti me=    12. 00]
06015> R0010: C00108- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06016>      CONTI NUOUS STANDHYD .         1. 0 01: CI              3. 41        . 523 No_date   28: 01    50. 29   . 777     .000
06017>      [ XI M=  . 68: TI MP=  . 85]
06018>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06019>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50.: MNP=. 250: SCP=    .0]
06020>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =  261.: MNI =. 013: SCI =    .0]
06021>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06022> R0010: C00109- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06023>      ROUTE RESERVOI R -> .          1. 0 02: CI              3. 41        . 523 No_date   28: 01    50. 29   n/ a      .000
06024>                  out <=          1. 0 01: CI - STR        3. 41        . 133 No_date   28: 25    50. 29   n/ a      .000
06025>              overflow <=         1. 0 03: CI - OVF          .00        . 000 No_date   0: 00      .00   n/ a      .000
06026>      [ MI stOl ked=. 1593E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06027> R0010: C00110- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06028>      CONTI NUOUS STANDHYD .         1. 0 01: ST- 5           . 45         . 058 No_date   28: 00    38. 69   . 598     .000
06029>      [ XI M=  . 46: TI MP=  . 57]
06030>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06031>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50.: MNP=. 250: SCP=    .0]
06032>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =  95.: MNI =. 013: SCI =    .0]
06033>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06034> R0010: C00111- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06035>      ROUTE RESERVOI R -> .          1. 0 02: ST- 5           . 45         . 058 No_date   28: 00    38. 69   n/ a      .000
06036>                  out <=          1. 0 01: ST5STR          . 45         . 040 No_date   28: 04    38. 69   n/ a      .000
06037>              overflow <=         1. 0 03: ST5OVF           .00         . 000 No_date   0: 00      .00   n/ a      .000
06038>      [ MI stOl ked=. 1552E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06039> R0010: C00112- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06040>      ADD HYD .                      1. 0 02: DRAI N3        350. 31      4. 037 No_date   29: 17    20. 48   n/ a      .000
06041>                          +          1. 0 02: D3              2. 51        . 072 No_date   28: 44    32. 13   . 497     .000
06042>                          +          1. 0 02: CI - STR        3. 41        . 133 No_date   28: 25    50. 29   n/ a      .000
06043>                          +          1. 0 02: CI - OVF          .00        . 000 No_date   0: 00      .00   n/ a      .000
06044>                          +          1. 0 02: ST5STR           .45        . 040 No_date   28: 04    38. 69   n/ a      .000
06045>                          +          1. 0 02: ST5OVF           .00        . 000 No_date   0: 00      .00   n/ a      .000
06046>                      SUM=           1. 0 01: ST5- E         356. 68      4. 181 No_date   29: 15    20. 87   n/ a      .000
06047> R0010: C00113- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06048>      CONTI NUOUS STANDHYD .         1. 0 01: STRAND          7. 59        . 759 No_date   28: 11    49. 05   . 758     .000
06049>      [ XI M=  . 64: TI MP=  . 85]
06050>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06051>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   40.: MNP=. 250: SCP=    .0]
06052>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =1230.: MNI =. 013: SCI =    .0]
06053>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06054> R0010: C00114- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06055>      ROUTE RESERVOI R -> .          1. 0 02: STRAND          7. 59        . 759 No_date   28: 11    49. 05   n/ a      .000
06056>                  out <=          1. 0 01: S- POND         7. 59        . 066 No_date   29: 41    49. 05   n/ a      .000
06057>              overflow <=         1. 0 03: S- OVF           .00        . 000 No_date   0: 00      .00   n/ a      .000
06058>      [ MI stOl ked=. 2593E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06059> R0010: C00115- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06060>      ADD HYD .                      1. 0 02: ST5- E         356. 68      4. 181 No_date   29: 15    20. 87   n/ a      .000
06061>                          +          1. 0 02: S- POND         7. 59        . 066 No_date   29: 41    49. 05   n/ a      .000
06062>                          +          1. 0 02: S- OVF           .00        . 000 No_date   0: 00      .00   n/ a      .000
06063>                      SUM=           1. 0 01: SSAOUT         364. 27      4. 242 No_date   29: 15    21. 45   n/ a      .000
06064> R0010: C00116- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06065>      SAVE HYD .                     1. 0 01: SSAOUT         364. 27      4. 242 No_date   29: 15    21. 45   n/ a      .000
06066>          fname : SSAOUT. 0010
06067>          remark: SSAOUT
06068> R0010: C00117- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06069>      CONTI NUOUS STANDHYD .         1. 0 01: Area- A         66. 75       6. 470 No_date   28: 10    48. 24   . 746     .000
06070>      [ XI M=  . 64: TI MP=  . 80]
06071>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06072>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50.: MNP=. 250: SCP=    .0]
06073>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =1155.: MNI =. 013: SCI =    .0]
06074>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06075> R0010: C00118- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06076>      SAVE HYD .                     1. 0 01: Area- A         66. 75       6. 470 No_date   28: 10    48. 24   n/ a      .000
06077>          fname : Area- A. 0010
06078>          remark: SWMF- A I nflow
06079> R0010: C00119- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06080>      ROUTE RESERVOI R -> .          1. 0 02: Area- A         66. 75       6. 470 No_date   28: 10    48. 24   n/ a      .000
06081>                  out <=          1. 0 01: SWMF- A         66. 75       . 465 No_date   29: 54    48. 24   n/ a      .000
06082>              overflow <=         1. 0 03: SWMOV            .00         . 000 No_date   0: 00      .00   n/ a      .000
06083>      [ MI stOl ked=. 2359E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06084> R0010: C00120- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06085>      SAVE HYD .                     1. 0 01: SWMF- A         66. 75       . 465 No_date   29: 54    48. 24   n/ a      .000
06086>          fname : SWMF- A. 0010
06087>          remark: SWMF- A Outflow
06088> R0010: C00121- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06089>      ADD HYD .                      1. 0 02: SSAOUT         364. 27      4. 242 No_date   29: 15    21. 45   n/ a      .000
06090>                          +          1. 0 02: SWMF- A         66. 75       . 465 No_date   29: 54    48. 24   n/ a      .000
06091>                          +          1. 0 02: SWMOV            .00         . 000 No_date   0: 00      .00   n/ a      .000
06092>                      SUM=           1. 0 01: PT4ST5         431. 02      4. 657 No_date   29: 18    25. 60   n/ a      .000
06093> R0010: C00122- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06094>      CONTI NUOUS STANDHYD .         1. 0 01: C6              1. 87        . 301 No_date   28: 01    50. 29   . 777     .000
06095>      [ XI M=  . 68: TI MP=  . 85]
06096>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06097>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50.: MNP=. 250: SCP=    .0]
06098>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =  193.: MNI =. 013: SCI =    .0]
06099>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06100> R0010: C00123- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06101>      ROUTE RESERVOI R -> .          1. 0 02: C6              1. 87        . 301 No_date   28: 01    50. 29   n/ a      .000
06102>                  out <=          1. 0 01: C6- STR         1. 87        . 074 No_date   28: 22    50. 29   n/ a      .000
06103>              overflow <=         1. 0 03: C6- OVF           .00        . 000 No_date   0: 00      .00   n/ a      .000
06104>      [ MI stOl ked=. 4376E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06105> R0010: C00124- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06106>      CONTI NUOUS STANDHYD .         1. 0 01: C7              1. 62        . 262 No_date   28: 01    50. 29   . 777     .000
06107>      [ XI M=  . 68: TI MP=  . 85]
06108>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06109>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50.: MNP=. 250: SCP=    .0]
06110>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =  180.: MNI =. 013: SCI =    .0]
06111>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06112> R0010: C00125- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06113>      ROUTE RESERVOI R -> .          1. 0 02: C7              1. 62        . 262 No_date   28: 01    50. 29   n/ a      .000
06114>                  out <=          1. 0 01: C7- STR         1. 62        . 064 No_date   28: 22    50. 29   n/ a      .000
06115>              overflow <=         1. 0 03: C7- OVF           .00        . 000 No_date   0: 00      .00   n/ a      .000
06116>      [ MI stOl ked=. 3781E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06117> R0010: C00126- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06118>      CONTI NUOUS STANDHYD .         1. 0 01: ST- 6           . 41         . 053 No_date   28: 00    38. 69   . 598     .000
06119>      [ XI M=  . 46: TI MP=  . 57]
06120>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06121>      [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50.: MNP=. 250: SCP=    .0]
06122>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  .50: LGI =  91.: MNI =. 013: SCI =    .0]
06123>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06124> R0010: C00127- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06125>      ROUTE RESERVOI R -> .          1. 0 02: ST- 6           . 41         . 053 No_date   28: 00    38. 69   n/ a      .000
06126>                  out <=          1. 0 01: ST6STR           .41         . 036 No_date   28: 04    38. 69   n/ a      .000
06127>              overflow <=         1. 0 03: ST6OVF           .00         . 000 No_date   0: 00      .00   n/ a      .000
06128>      [ MI stOl ked=. 1514E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06129> R0010: C00128- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06130>      ADD HYD .                      1. 0 02: PT4ST5         431. 02      4. 657 No_date   29: 18    25. 60   n/ a      .000
06131>                          +          1. 0 02: C6- STR         1. 87        . 074 No_date   28: 22    50. 29   n/ a      .000
06132>                          +          1. 0 02: C6- OVF          .00         . 000 No_date   0: 00      .00   n/ a      .000
06133>                          +          1. 0 02: C7- STR         1. 62        . 064 No_date   28: 22    50. 29   n/ a      .000
06134>                          +          1. 0 02: C7- OVF          .00         . 000 No_date   0: 00      .00   n/ a      .000
06135>                          +          1. 0 02: ST6STR           .41         . 036 No_date   28: 04    38. 69   n/ a      .000
06136>                          +          1. 0 02: ST6OVF           .00         . 000 No_date   0: 00      .00   n/ a      .000
06137>                      SUM=           1. 0 01: PT5ST6         434. 92      4. 740 No_date   29: 18    25. 81   n/ a      .000
06138> R0010: C00129- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06139>      ROUTE CHANNEL .        ->      1. 0 02: PT5ST6         434. 92      4. 740 No_date   29: 18    25. 81   n/ a      .000
06140>      [ RDT=  1. 00]  out <-         1. 0 01: DRAI N4        434. 92      4. 599 No_date   29: 31    25. 81   n/ a      .000
06141>      [ L/ S=  n=    324. /  . 100/ . 043]
06142>      [ Vmx=  n=    . 468: Dmx=  n=  1. 312]
06143> R0010: C00130- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06144>      CONTI NUOUS NASHYD .           1. 0 01: D4              1. 73        . 063 No_date   28: 35    34. 48   . 533     .000
06145>      [ CN=  88. 0:  N=  3. 00:  Tp=     . 60]
06146>      [ I aREC=  4. 00:  SMI N=  14. 94:  SMAX=  99. 61:  SK=  . 010]
06147>      [ I nterEvent Ti me=    12. 00]
06148> R0010: C00131- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06149>      CONTI NUOUS STANDHYD .         1. 0 01: Area- B         24. 04       3. 287 No_date   28: 03    47. 09   . 728     .000
06150>      [ XI M=  . 62: TI MP=  . 77]
06151>      [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06152>      [ P ervious      area:  I Aper=  4. 67: SLPP=1. 40: LGP=   50.: MNP=. 250: SCP=    .0]
06153>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =1. 40: LGI =  693.: MNI =. 013: SCI =    .0]
06154>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06155> R0010: C00132- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06156>      ROUTE RESERVOI R -> .          1. 0 02: Area- B         24. 04       3. 287 No_date   28: 03    47. 09   n/ a      .000
06157>                  out <=          1. 0 01: SWMF- B         24. 04       . 356 No_date   28: 50    47. 09   n/ a      .000
06158>              overflow <=         1. 0 03: SWMOVF           .00         . 000 No_date   0: 00      .00   n/ a      .000
06159>      [ MI stOl ked=. 7142E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06160> R0010: C00133- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06161>      ADD HYD .                      1. 0 02: DRAI N4        434. 92      4. 599 No_date   29: 31    25. 81   n/ a      .000
06162>                          +          1. 0 02: D4              1. 73        . 063 No_date   28: 35    34. 48   n/ a      .000
06163>                          +          1. 0 02: SWMF- B         24. 04       . 356 No_date   28: 50    47. 09   n/ a      .000
06164>                          +          1. 0 02: SWMBOVF          .00         . 000 No_date   0: 00      .00   n/ a      .000
06165>                      SUM=           1. 0 01: D4- EX         460. 69      4. 958 No_date   29: 31    26. 95   n/ a      .000
06166> R0010: C00134- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06167>      ROUTE CHANNEL .        ->      1. 0 02: D4- EX         460. 69      4. 958 No_date   29: 31    26. 95   n/ a      .000
06168>      [ RDT=  1. 00]  out <-         1. 0 01: DRAI N5        460. 69      4. 881 No_date   29: 37    26. 95   n/ a      .000
06169>      [ L/ S=  n=    413. /  . 160/ . 033]
06170>      [ Vmx=  n=    . 599: Dmx=  n=  . 896]
06171> R0010: C00135- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06172>      CONTI NUOUS NASHYD .           1. 0 01: D5              1. 90        . 057 No_date   28: 41    32. 13   . 497     .000
06173>      [ CN=  86. 0:  N=  3. 00:  Tp=     . 69]
06174>      [ I aREC=  4. 00:  SMI N=  17. 43:  SMAX=  116. 21:  SK=  . 010]
06175>      [ I nterEvent Ti me=    12. 00]
06176> R0010: C00136- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06177>      CONTI NUOUS NASHYD .           1. 0 01: O- 13SDF        9. 74        . 371 No_date   28: 22    30. 32   . 469     .000
06178>      [ CN=  81. 0:  N=  3. 00:  Tp=     . 43]
06179>      [ I aREC=  4. 00:  SMI N=  25. 21:  SMAX=  168. 09:  SK=  . 010]
06180>      [ I nterEvent Ti me=    12. 00]
06181> R0010: C00137- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06182>      ROUTE RESERVOI R -> .          1. 0 02: O- 13SDF        9. 74        . 371 No_date   28: 22    30. 32   n/ a      .000
06183>                  out <=          1. 0 01: O- 13SDF        9. 74        . 040 No_date   31: 17    30. 32   n/ a      .000
06184>              overflow <=         1. 0 03: OWFSDF           .00         . 000 No_date   0: 00      .00   n/ a      .000
06185>      [ MI stOl ked=. 1596E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06186> R0010: C00138- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06187>      ADD HYD .                      1. 0 02: DRAI N5        460. 69      4. 881 No_date   29: 37    26. 95   n/ a      .000
06188>                          +          1. 0 02: D5              1. 90        . 057 No_date   28: 41    32. 13   n/ a      .000
06189>                          +          1. 0 02: SDF             9. 74        . 040 No_date   31: 17    30. 32   n/ a      .000
06190>                      SUM=           1. 0 01: PT6MC          472. 33      4. 951 No_date   29: 37    27. 04   n/ a      .000
06191> R0010: C00139- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06192>      CONTI NUOUS NASHYD .           1. 0 01: O- 15           10. 67        . 502 No_date   28: 13    29. 12   . 450     .000
06193>      [ CN=  82. 0:  N=  3. 00:  Tp=     . 30]
06194>      [ I aREC=  4. 00:  SMI N=  23. 09:  SMAX=  153. 94:  SK=  . 010]
06195>      [ I nterEvent Ti me=    12. 00]
06196> R0010: C00140- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06197>      ADD HYD .                      1. 0 02: PT6MC          472. 33      4. 951 No_date   29: 37    27. 04   n/ a      .000
06198>                          +          1. 0 02: O- 15           10. 67        . 502 No_date   28: 13    29. 12   n/ a      .000
06199>                      SUM=           1. 0 01: MC             483. 00      5. 029 No_date   29: 36    27. 09   n/ a      .000
06200> R0010: C00141- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06201>      ROUTE CHANNEL .        ->      1. 0 02: MC              483. 00      5. 029 No_date   29: 36    27. 09   n/ a      .000
06202>      [ RDT=  1. 00]  out <-         1. 0 01: O- 14Ch         483. 00      4. 686 No_date   30: 11    27. 09   n/ a      .000
06203>      [ L/ S=  n=    845. /  . 100/ . 033]
06204>      [ Vmx=  n=    618: Dmx=  n=  1. 565]
06205> R0010: C00142- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06206>      CONTI NUOUS NASHYD .           1. 0 01: O- 14           5. 00        . 389 No_date   28: 04    29. 12   . 450     .000
06207>      [ CN=  82. 0:  N=  3. 00:  Tp=     . 31]
06208>      [ I aREC=  4. 00:  SMI N=  23. 09:  SMAX=  153. 94:  SK=  . 010]
06209>      [ I nterEvent Ti me=    12. 00]
06210> R0010: C00143- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06211>      ADD HYD .                      1. 0 02: O- 14Ch         483. 00      4. 686 No_date   30: 11    27. 09   n/ a      .000
06212>                          +          1. 0 02: O- 14           5. 00        . 389 No_date   28: 04    29. 12   n/ a      .000
06213>                      SUM=           1. 0 01: OKEEFEE        488. 00      4. 709 No_date   30: 11    27. 11   n/ a      .000
06214> #*************************************************************************
06215> #     Okeefe Pond
06216> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
06217> #       and a ratio of the catchment area to the West Clarke pond rating curve
06218> #       from the MSS for the next coordinates
06219> #*************************************************************************
06220> R0010: C00144- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06221>      CONTI NUOUS NASHYD .           1. 0 01: S- 1- D2        18. 67        . 308 No_date   29: 12    26. 85   . 415     .000
06222>      [ CN=  77. 0:  N=  3. 00:  Tp=     1. 12]
06223>      [ I aREC=  4. 00:  SMI N=  31. 15:  SMAX=  207. 66:  SK=  . 010]
06224>      [ I nterEvent Ti me=    12. 00]
06225> R0010: C00145- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06226>      CONTI NUOUS NASHYD .           1. 0 01: S- 1- D3         6. 79        . 102 No_date   29: 24    26. 85   . 415     .000
06227>      [ CN=  77. 0:  N=  3. 00:  Tp=     1. 28]
06228>      [ I aREC=  4. 00:  SMI N=  31. 15:  SMAX=  207. 66:  SK=  . 010]
06229>      [ I nterEvent Ti me=    12. 00]
06230> R0010: C00146- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06231>      ADD HYD .                      1. 0 02: N_OK           53064. 36     84. 059 No_date   34: 06    22. 56   n/ a      .000
06232>                          +          1. 0 02: OKEEFE         488. 00      4. 709 No_date   30: 11    27. 11   n/ a      .000
06233>                          +          1. 0 02: S- 1- D2        18. 67        . 308 No_date   29: 12    26. 85   n/ a      .000
06234>                          +          1. 0 02: S- 1- D3         6. 79        . 102 No_date   29: 24    26. 85   n/ a      .000
06235>                      SUM=           1. 0 01: SN_OK          53577. 82     85. 805 No_date   33: 41    22. 60   n/ a      .000
06236> R0010: C00147- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06237>      SAVE HYD .                     1. 0 01: SN_OK          53577. 82     85. 805 No_date   33: 41    22. 60   n/ a      .000
06238>          fname : SN_OK. 0010
06239>          remark: Total Flows at Okeefe Drain
06240> #
06241> # Hydrograph from Node Okeefe routed to Node at Foster Drain
06242> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6215
06243> #
06244> R0010: C00148- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06245>      ROUTE CHANNEL .        ->      1. 0 02: SN_OK          53577. 82     85. 805 No_date   33: 41    22. 60   n/ a      .000
06246>      [ RDT=  1. 00]  out <-         1. 0 01: N_FO           53577. 82     85. 613 No_date   34: 07    22. 60   n/ a      .000
06247>      [ L/ S=  n=    1183. /  . 076/ . 035]
06248>      [ Vmx=  n=    1. 103: Dmx=  n=  2. 861]
06249> #*************************************************************************
06250> #     Catchment FOSTER
06251> #     - To Foster ditch (north of the Jock)
06252> #     - Partially developed (medium density); remaining agricultural
06253> #     - 2020- 12- 01 FOSA Foster area is 332 as per Foster SWMF Environmental Study Report, CHEMMLL, Aug 2013.
06254> #     - 2020- 12- 01 decrease Foster drainage area from (373 HA) to (307. 98 HA) after increasing Okeefe drainage area to (5
06255> #     - 2021- 02- 12  update Foster area to 325. 44 ha as measured from QGIS
06256> #*************************************************************************
06257> R0010: C00149- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06258>      CONTI NUOUS STANDHYD .         1. 0 01: FOSTER         325. 44      22. 870 No_date   28: 13    43. 99   . 680     .000
06259>      [ XI M=  . 55: TI MP=  . 55]
06260>      [ LGS=  2 .: CN=  74. 0]
06261>      [ P ervious      area:  I Aper=  4. 67: SLPP=  . 50: LGP=   40.: MNP=. 250: SCP=    .0]
06262>      [ I mpervious    area:  I Ai mp=  1. 57: SLPI =  . 50: LGI =1473.: MNI =. 013: SCI =    .0]
06263>      [ I aREC mp=     4. 00:  I aREC per=     4. 00]
06264>      [ SMI N=  36. 67:  SMAX=244. 49:  SK=  . 010]
06265> #*************************************************************************
06266> #     Foster Pond
06267> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
06268> #       and a ratio of the catchment area to the West Clarke pond rating curve
06269> #       from the MSS for the next coordinates
06270> #*************************************************************************
06271> R0010: C00150- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06272>      ROUTE RESERVOI R -> .          1. 0 02: FOSTER         325. 44      22. 870 No_date   28: 13    43. 99   n/ a      .000
06273>                  out <=          1. 0 01: P_FOS          325. 44       6. 061 No_date   29: 06    43. 99   n/ a      .000
06274>              overflow <=         1. 0 03: FO- OVF           .00         . 000 No_date   0: 00      .00   n/ a      .000
06275>      [ MI stOl ked=. 5862E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ovf =     0. hrs]
06276> R0010: C00151- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06277>      ADD HYD .                      1. 0 02: P_FOS          325. 44       6. 061 No_date   29: 06    43. 99   n/ a      .000
06278>                          +          1. 0 02: SWMOVF           .00         . 000 No_date   0: 00      .00   n/ a      .000
06279>                      SUM=           1. 0 01: FOSTER- OUT    325. 44       6. 061 No_date   29: 06    43. 99   n/ a      .000
06280> #*************************************************************************
06281> R0010: C00152- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06282>      CONTI NUOUS STANDHYD .         1. 0 01: W_CLAR_BRA      73. 29        7. 523 No_date   28: 05    47. 94   . 741     .000
06283>      [ XI M=  . 60: TI MP=  . 65]
06284>      [ LGS=
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06359>          [InterEventTime=  12.00]
06360> R0010: C00166-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06361>       ADD HYD                1.0 02: N_FO       53577.82    85.613 No_date    34:07    22.60   n/a      .000
06362>                            + 1.0 02: 520-out      335.49     5.972 No_date    29:28    43.48   n/a      .000
06363>                            + 1.0 02: MS_P10        73.29     1.136 No_date    29:00    47.94   n/a      .000
06364>                            + 1.0 02: P10-OVF         .00      .000 No_date     0:00      .00   n/a      .000
06365>                            + 1.0 02: W_CLAR_UND    35.65      .596 No_date    29:11    26.85   n/a      .000
06366>                            + 1.0 02: S-1-FO_F-D    14.96      .267 No_date    29:04    26.85   n/a      .000
06367>                            + 1.0 02: S-1-D8         5.27      .768 No_date    28:00    48.63   n/a      .000
06368>                            + 1.0 02: S-1-A         75.88     1.915 No_date    28:36    26.85   n/a      .000
06369>                       SUM= 1.0 01: SN_FO       54118.36    89.156 No_date    33:42    22.78   n/a      .000
06370> R0010: C00167-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06371>       SAVE HYD               1.0 01: SN_FO      54118.36    89.156 No_date    33:42    22.78   n/a      .000
06372>          fname : SN_FO 0010
06373>          remark: Total Flows at Foster Drain
06374> # Hydrograph from Node Foster routed to Node at Cedarview Road
06375> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
06376> #
06377> R0010: C00168-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06378>       ROUTE CHANNEL    -->     1.0 02: SN_FO      54118.36    89.156 No_date    33:42    22.78   n/a      .000
06379>   *   [RDT=  1.00] out <-      1.0 01: N_CE      54118.36    89.070 No_date    33:43    22.78   n/a      .000
06380>          [L/S/n=  159./ .082/ .035]
06381>          [Vmx=  1.328; Dmx=  3.415]
06382> #*******************************************************************************
06383> #     Catchment S-1
06384> #     - To Jock River (north and south of Jock)
06385> #     - Primarily agricultural fields; portion of sand quarry
06386> #*******************************************************************************
06387> R0010: C00169-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06388>       CONTINUOUS NASHYD      1.0 01: S-1-B         55.36     1.740 No_date    28:24    26.85   .415     .000
06389>          [CN=  77.0: N=  3.00: Tp=   .45]
06390>          [IaREC=  4.00: SMN=  31.15: SMX=207.66: SK=  .010]
06391>          [InterEventTime=  12.00]
06392> #     -   JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B. Change their TP values based on the new areas
06393> #     -   JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore.  "S-1-BCDC-1" is part of "S-1-FO_D2" and
06394> #     -   JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
06395> R0010: C00170-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06396>       CONTINUOUS NASHYD      1.0 01: S-1-D1        21.67      .371 No_date    29:08    26.85   .415     .000
06397>          [CN=  77.0: N=  3.00: Tp=  1.07]
06398>          [IaREC=  4.00: SMN=  31.15: SMX=207.66: SK=  .010]
06399>          [InterEventTime=  12.00]
06400> R0010: C00171-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06401>       CONTINUOUS NASHYD      1.0 01: S-1-D4         3.28      .055 No_date    29:11    26.85   .415     .000
06402>          [CN=  77.0: N=  3.00: Tp=  1.10]
06403>          [IaREC=  4.00: SMN=  31.15: SMX=207.66: SK=  .010]
06404>          [InterEventTime=  12.00]
06405> R0010: C00172-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06406>       CONTINUOUS NASHYD      1.0 01: S-1-D5        12.84      .215 No_date    29:11    26.85   .415     .000
06407>          [CN=  77.0: N=  3.00: Tp=  1.10]
06408>          [IaREC=  4.00: SMN=  31.15: SMX=207.66: SK=  .010]
06409>          [InterEventTime=  12.00]
06410> R0010: C00173-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06411>       CONTINUOUS NASHYD      1.0 01: S-1-D6         1.75      .029 No_date    29:11    26.85   .415     .000
06412>          [CN=  77.0: N=  3.00: Tp=  1.10]
06413>          [IaREC=  4.00: SMN=  31.15: SMX=207.66: SK=  .010]
06414>          [InterEventTime=  12.00]
06415> R0010: C00174-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06416>       CONTINUOUS NASHYD      1.0 01: S-1-D7         2.03      .034 No_date    29:11    26.85   .415     .000
06417>          [CN=  77.0: N=  3.00: Tp=  1.10]
06418>          [IaREC=  4.00: SMN=  31.15: SMX=207.66: SK=  .010]
06419>          [InterEventTime=  12.00]
06420> #     Catchment W_CLAR
06421> #     - To West Clarke Drain (south of the Jock)
06422> #     - Subdivision with 43% imp. as per Barrhaven South MSS
06423> #     - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)-11
06424> #     - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL
06425> #*******************************************************************************
06426> R0010: C00175-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06427>       CONTINUOUS STANDHYD    1.0 01: W_CLAR_MJ      1.77      .229 No_date    28:00    43.97   .680     .000
06428>          [XI MP=  46: TIMP=  .59]
06429>          [LOSS=  2 : CN=  77.0]
06430>          [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06431>          [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  109. : MNI=. 013: SCI=   .0]
06432>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06433>          [SMN=  31. 15: SMX=207. 66: SK=  .010]
06434> # 5-Year + 12% Capture
06435> R0010: C00176-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06436>       ROUTE RESERVOIR  ->      1.0 02: W_CLAR_MJ      1.77      .229 No_date    28:00    43.97   n/a      .000
06437>                        out <=  1.0 01: W_CLAR_Min     1.77      .213 No_date    27:58    43.97   n/a      .000
06438>                        overflow<=  1.0 03: W_CLAR_MJ   .00      .013 No_date    28:00    43.97   n/a      .000
06439>          [MxStoRed=. 8179E-04   m3,  Tot Ovf Vol =. 1952E-03   m3,  N-Ovf =    1,  Tot Dur Ovf =     0. hrs]
06440> R0010: C00177-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06441>       CONTINUOUS STANDHYD    1.0 01: W_CLAR_ALL    119.40    12.497 No_date    28:05    47.94   .741     .000
06442>          [XI MP=  60: TIMP=  .65]
06443>          [LOSS=  2 : CN=  77.0]
06444>          [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06445>          [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  892. : MNI=. 013: SCI=   .0]
06446>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06447>          [SMN=  31. 15: SMX=207. 66: SK=  .010]
06448> R0010: C00178-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06449>       ADD HYD                1.0 02: W_CLAR_ALL    119.40    12.497 No_date    28:05    47.94   n/a      .000
06450>                            + 1.0 02: W_CLAR_MJ       .00      .013 No_date    28:00    43.97   n/a      .000
06451>                       SUM= 1.0 01: W_CLAR        119.40    12.497 No_date    28:05    47.94   n/a      .000
06452> R0010: C00179-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06453>       SAVE HYD               1.0 01: W_CLAR        119.40    12.497 No_date    28:05    47.94   n/a      .000
06454>          fname : W_CLAR 0010
06455>          remark: Total Flows to West Clarke
06456> #*******************************************************************************
06457> #     West Clarke Pond 2
06458> #     - Rating curve obtained from Barrhaven South MSS modeling
06459> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
06460> #*******************************************************************************
06461> R0010: C00180-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06462>       ROUTE RESERVOIR  ->      1.0 02: W_CLAR        119.40    12.497 No_date    28:05    47.94   n/a      .000
06463>                        out <=  1.0 01: MS_P2         119.40     3.959 No_date    28:33    47.94   n/a      .000
06464>                        overflow<=  1.0 03: P2-OVF        .00      .000 No_date     0:00      .00   n/a      .000
06465>          [MxStoRed=. 1802E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06466> #*******************************************************************************
06467> R0010: C00181-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06468>       ADD HYD                1.0 02: SN_CE      54118.36    89.070 No_date    33:43    22.78   n/a      .000
06469>                            + 1.0 02: S-1-D4         3.28      .055 No_date    29:11    26.85   n/a      .000
06470>                            + 1.0 02: S-1-D5        12.84      .215 No_date    29:11    26.85   n/a      .000
06471>                            + 1.0 02: MS_P2        119.40     3.959 No_date    28:33    47.94   n/a      .000
06472>                            + 1.0 02: P2-OVF          .00      .000 No_date     0:00      .00   n/a      .000
06473>                       SUM= 1.0 01: SN_CE        54253.88    89.884 No_date    33:43    22.84   n/a      .000
06474> R0010: C00182-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06475>       SAVE HYD               1.0 01: SN_CE      54253.88    89.884 No_date    33:43    22.84   n/a      .000
06476>          fname : SN_CE 0010
06477>          remark: Total Flows before Station 5737 on Jock River
06478> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
06479> # JFSA 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-1
06480> # JFSA 2021-03-02 change Mann's n to 0.035 instead of 0.0175 to stabilize the model
06481> R0010: C00183-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06482>       ROUTE CHANNEL    -->     1.0 02: SN_CE      54253.88    89.884 No_date    33:43    22.84   n/a      .000
06483>   *   [RDT=  1.00] out <-      1.0 01: 5737       54253.88    86.609 No_date    35:45    22.84   n/a      .000
06484>          [L/S/n=  270./ .018/ .035]
06485>          [Vmx=  .730: Dmx=  4.471]
06486> R0010: C00184-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06487>       ADD HYD                1.0 02: 5737       54253.88    86.609 No_date    35:45    22.84   n/a      .000
06488>                            + 1.0 02: S-1-D1        21.67      .371 No_date    29:08    26.85   n/a      .000
06489>                            + 1.0 02: S-1-D6         1.75      .029 No_date    29:11    26.85   n/a      .000
06490>                            + 1.0 02: S-1-D7         2.03      .034 No_date    29:11    26.85   n/a      .000
06491>                       SUM= 1.0 01: 5002         54279.34    86.671 No_date    35:45    22.84   n/a      .000
06492> R0010: C00185-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06493>       SAVE HYD               1.0 01: 5002       54279.34    86.671 No_date    35:45    22.84   n/a      .000
06494>          fname : 5002 0010
06495>          remark: Total Flows before Station 5002 on Jock River
06496> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
06497> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
06498> # JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable
06499> # JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
06500> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m  That is because of adding station 5737 be
06501> R0010: C00186-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06502>       ROUTE CHANNEL    -->     1.0 02: 5002       54279.34    86.671 No_date    35:45    22.84   n/a      .000
06503>   *   [RDT=  1.00] out <-      1.0 01: N_Wa       54279.34    86.687 No_date    35:42    22.84   n/a      .000
06504>          [L/S/n=  245./ .095/ .035]
06505>          [Vmx=  1.138: Dmx=  2.539]
06506> R0010: C00187-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06507>       ROUTE CHANNEL    -->     1.0 02: N_Wa       54279.34    86.687 No_date    35:42    22.84   n/a      .000
06508>   *   [RDT=  1.00] out <-      1.0 01: N_Wb       54279.34    86.651 No_date    35:51    22.84   n/a      .000
06509>          [L/S/n=  245./ .095/ .035]
06510>          [Vmx=  1.138: Dmx=  2.539]
06511> R0010: C00188-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06512>       ROUTE CHANNEL    -->     1.0 02: N_Wb       54279.34    86.651 No_date    35:51    22.84   n/a      .000
06513>   *   [RDT=  1.00] out <-      1.0 01: N_WC       54279.34    86.639 No_date    35:58    22.84   n/a      .000
06514>          [L/S/n=  245./ .095/ .035]
06515>          [Vmx=  1.138: Dmx=  2.539]
06516> #*******************************************************************************
06517> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
06518> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
06519> #
06520> R0010: C00189-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06521>       ROUTE CHANNEL    -->     1.0 02: N_WC       54279.34    86.639 No_date    35:58    22.84   n/a      .000
06522>   *   [RDT=  1.00] out <-      1.0 01: N_KB       54279.34    86.222 No_date    36:19    22.84   n/a      .000
06523>          [L/S/n=  1020. / .050/ .035]
06524>          [Vmx=  1.007: Dmx=  3.153]
06525> #*******************************************************************************
06526> #     Catchment KEN_BU
06527> #     - To Kennedy-Burnett SWM Facility
06528> #     - Outlets to Fraser-Clarke drain (north of the Jock)
06529> #     - Medium density residential subdivision
06530> #*******************************************************************************
06531> #*******************************************************************************
06532> #     Existing Kennedy-Burnett SWM Facility
06533> #     - Rating curve obtained from URTKBP
06534> #     - Tributary Drainage Area to Pond = 160 ha
06535> #*******************************************************************************
06536> R0010: C00190-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06537>       CONTINUOUS STANDHYD    1.0 01: KB-01A        40.82     3.338 No_date    28:12    24.14   .373     .000
06538>          [XI MP=. 10: TIMP=. 40]
06539>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06540>          [Pervious      area: IAper=  4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=   .0]
06541>          [Impervious    area: IAimp=  .79: SLPI=  .50: LGI=  522. : MNI=. 013: SCI=   .0]
06542>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06543> R0010: C00191-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06544>       COMPUTE DUALHYD        1.0 01: KB-01A        40.82     3.338 No_date    28:12    24.14   n/a      .000
06545>       Major System    /      1.0 02: KB-01A-MI       .00      .000 No_date     0:00      .00   n/a      .000
06546>       Minor System    \      1.0 03: KB-01A-MN      40.82     3.338 No_date    28:12    24.14   n/a      .000
06547>          [MJSysSto=. 0000E+00,  Tot Ovf Vol =. 0000E+00,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06548> R0010: C00192-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06549>       ADD HYD                1.0 02: KB-01A-MI       .00      .000 No_date     0:00      .00   n/a      .000
06550>                            + 1.0 02: KB-01A-MN      40.82     3.338 No_date    28:12    24.14   n/a      .000
06551>                       SUM= 1.0 01: KB-01A-S       40.82     3.338 No_date    28:12    24.14   n/a      .000
06552> R0010: C00193-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06553>       CONTINUOUS STANDHYD    1.0 01: KB-01B        31.10     2.335 No_date    28:08    26.73   .413     .000
06554>          [XI MP=. 19: TIMP=. 38]
06555>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06556>          [Pervious      area: IAper=  4. 67: SLPP=  .42: LGP=  40. : MNP=. 250: SCP=   .0]
06557>          [Impervious    area: IAimp=  .79: SLPI=  .42: LGI=  455. : MNI=. 013: SCI=   .0]
06558>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06559> R0010: C00194-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06560>       COMPUTE DUALHYD        1.0 01: KB-01B        31.10     2.335 No_date    28:08    26.73   n/a      .000
06561>       Major System    /      1.0 02: KB-01B-MI       .00      .000 No_date     0:00      .00   n/a      .000
06562>       Minor System    \      1.0 03: KB-01B-MN      31.10     1.585 No_date    27:59    26.78   n/a      .000
06563>          [MJSysSto=. 8272E+03,  Tot Ovf Vol =. 0000E+00,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06564> R0010: C00195-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06565>       ADD HYD                1.0 02: KB-01B-MI       .00      .000 No_date     0:00      .00   n/a      .000
06566>                            + 1.0 02: KB-01B-MN      31.10     1.585 No_date    27:59    26.78   n/a      .000
06567>                       SUM= 1.0 01: KB-01B-S       31.10     1.585 No_date    27:59    26.78   n/a      .000
06568> R0010: C00196-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06569>       CONTINUOUS STANDHYD    1.0 01: KB-01C        13.78     1.534 No_date    28:05    27.74   .429     .000
06570>          [XI MP=. 20: TIMP=. 41]
06571>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06572>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06573>          [Impervious    area: IAimp=  .79: SLPI=  .50: LGI=  303. : MNI=. 013: SCI=   .0]
06574>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06575> R0010: C00197-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06576>       COMPUTE DUALHYD        1.0 01: KB-01C        13.78     1.534 No_date    28:05    27.74   n/a      .000
06577>       Major System    /      1.0 02: KB-01C-MI       .00      .000 No_date     0:00      .00   n/a      .000
06578>       Minor System    \      1.0 03: KB-01C-MN      13.78     1.350 No_date    28:00    27.93   n/a      .000
06579>          [MJSysSto=. 6901E+02,  Tot Ovf Vol =. 0000E+00,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06580> R0010: C00198-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06581>       ADD HYD                1.0 02: KB-01C-MI       .00      .000 No_date     0:00      .00   n/a      .000
06582>                            + 1.0 02: KB-01C-MN      13.78     1.350 No_date    28:00    27.93   n/a      .000
06583>                       SUM= 1.0 01: KB-01C-S       13.78     1.350 No_date    28:00    27.93   n/a      .000
06584> R0010: C00199-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06585>       CONTINUOUS STANDHYD    1.0 01: KB-03         84.78     7.685 No_date    28:09    27.30   .422     .000
06586>          [XI MP=. 20: TIMP=. 39]
06587>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06588>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06589>          [Impervious    area: IAimp=  .79: SLPI=  .63: LGI=  752. : MNI=. 013: SCI=   .0]
06590>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06591> R0010: C00200-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06592>       COMPUTE DUALHYD        1.0 01: KB-03         84.78     7.685 No_date    28:09    27.30   n/a      .000
06593>       Major System    /      1.0 02: KB-03-MI        .00      .000 No_date     0:00      .00   n/a      .000
06594>       Minor System    \      1.0 03: KB-03-MN       84.78     5.270 No_date    27:59    27.40   n/a      .000
06595>          [MJSysSto=. 2022E+04,  Tot Ovf Vol =. 0000E+00,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06596> R0010: C00201-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06597>       ADD HYD                1.0 02: KB-03-MI        .00      .000 No_date     0:00      .00   n/a      .000
06598>                            + 1.0 02: KB-03-MN       84.78     5.270 No_date    27:59    27.40   n/a      .000
06599>                       SUM= 1.0 01: KB-03-S        84.78     5.270 No_date    27:59    27.40   n/a      .000
06600> R0010: C00202-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06601>       CONTINUOUS STANDHYD    1.0 01: KB-04         6.95     1.217 No_date    28:01    56.45   .873     .000
06602>          [XI MP=. 85: TIMP=. 85]
06603>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06604>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06605>          [Impervious    area: IAimp=  .94: SLPI=  .50: LGI=  215. : MNI=. 013: SCI=   .0]
06606>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06607> R0010: C00203-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06608>       COMPUTE DUALHYD        1.0 01: KB-04         6.95     1.217 No_date    28:01    56.45   n/a      .000
06609>       Major System    /      1.0 02: KB-04-MI        .00      .000 No_date     0:00      .00   n/a      .000
06610>       Minor System    \      1.0 03: KB-04-MN       6.95      .503 No_date    27:46    56.53   n/a      .000
06611>          [MJSysSto=. 5392E+03,  Tot Ovf Vol =. 0000E+00,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06612> R0010: C00204-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06613>       ADD HYD                1.0 02: KB-04-MI        .00      .000 No_date     0:00      .00   n/a      .000
06614>                            + 1.0 02: KB-04-MN       6.95      .503 No_date    27:46    56.53   n/a      .000
06615>                       SUM= 1.0 01: KB-04-S        6.95      .503 No_date    27:46    56.53   n/a      .000
06616> R0010: C00205-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06617>       CONTINUOUS STANDHYD    1.0 01: KB-05         5.19      .983 No_date    28:00    59.76   .924     .000
06618>          [XI MP=. 93: TIMP=. 93]
06619>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06620>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06621>          [Impervious    area: IAimp=  1. 57: SLPI=  .50: LGI=  186. : MNI=. 013: SCI=   .0]
06622>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06623> R0010: C00206-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06624>       CONTINUOUS STANDHYD    1.0 01: KB-06         12.93     2.536 No_date    28:00    57.57   .890     .000
06625>          [XI MP=. 87: TIMP=. 87]
06626>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06627>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06628>          [Impervious    area: IAimp=  .94: SLPI=4. 75: LGI=  294. : MNI=. 013: SCI=   .0]
06629>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06630> R0010: C00207-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06631>       COMPUTE DUALHYD        1.0 01: KB-06         12.93     2.536 No_date    28:00    57.57   n/a      .000
06632>       Major System    /      1.0 02: KB-06-MI        .00      .000 No_date     0:00      .00   n/a      .000
06633>       Minor System    \      1.0 03: KB-06-MN       12.93     2.262 No_date    27:56    57.80   n/a      .000
06634>          [MJSysSto=. 6369E+02,  Tot Ovf Vol =. 0000E+00,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06635> R0010: C00208-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06636>       ADD HYD                1.0 02: KB-06-MI        .00      .000 No_date     0:00      .00   n/a      .000
06637>                            + 1.0 02: KB-06-MN       12.93     2.262 No_date    27:56    57.80   n/a      .000
06638>                       SUM= 1.0 01: KB-06-S        12.93     2.262 No_date    27:56    57.80   n/a      .000
06639> R0010: C00209-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06640>       CONTINUOUS STANDHYD    1.0 01: KB-11         4.03      .686 No_date    28:00    48.04   .743     .000
06641>          [XI MP=. 68: TIMP=. 68]
06642>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06643>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06644>          [Impervious    area: IAimp=  .79: SLPI=2. 00: LGI=  164. : MNI=. 013: SCI=   .0]
06645>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06646> R0010: C00210-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06647>       COMPUTE DUALHYD        1.0 01: KB-11         4.03      .686 No_date    28:00    48.04   n/a      .000
06648>       Major System    /      1.0 02: KB-11-MI        .00      .000 No_date     0:00      .00   n/a      .000
06649>       Minor System    \      1.0 03: KB-11-MN       4.03      .577 No_date    27:55    48.44   n/a      .000
06650>          [MJSysSto=. 2954E+02,  Tot Ovf Vol =. 0000E+00,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06651> R0010: C00211-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06652>       ADD HYD                1.0 02: KB-11-MI        .00      .000 No_date     0:00      .00   n/a      .000
06653>                            + 1.0 02: KB-11-MN       4.03      .577 No_date    27:55    48.44   n/a      .000
06654>                       SUM= 1.0 01: KB-11-S        4.03      .577 No_date    27:55    48.44   n/a      .000
06655> R0010: C00212-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06656>       CONTINUOUS STANDHYD    1.0 01: S1            4.99     1.020 No_date    28:00    59.76   .924     .000
06657>          [XI MP=. 93: TIMP=. 93]
06658>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06659>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06660>          [Impervious    area: IAimp=  1. 57: SLPI=2. 00: LGI=  182. : MNI=. 013: SCI=   .0]
06661>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06662> R0010: C00213-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06663>       CONTINUOUS STANDHYD    1.0 01: KB-15         2.15      .377 No_date    28:00    54.15   .837     .000
06664>          [XI MP=. 79: TIMP=. 79]
06665>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06666>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06667>          [Impervious    area: IAimp=  .16: SLPI=  .30: LGI=  120. : MNI=. 013: SCI=   .0]
06668>          [IaRECmps=  4. 00: IaRECper=  4. 00]
06669> R0010: C00214-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06670>       ADD HYD                1.0 02: KB-01A-S        40.82     3.338 No_date    28:12    24.14   n/a      .000
06671>                            + 1.0 02: KB-01B-S        31.10     1.585 No_date    27:59    26.78   n/a      .000
06672>                            + 1.0 02: KB-01C-S        13.78     1.350 No_date    28:00    27.93   n/a      .000
06673>                            + 1.0 02: KB-03-S         84.78     5.270 No_date    27:59    27.40   n/a      .000
06674>                            + 1.0 02: KB-04-S          6.95      .503 No_date    27:46    56.53   n/a      .000
06675>                            + 1.0 02: KB-05            5.19      .983 No_date    28:00    59.76   n/a      .000
06676>                            + 1.0 02: KB-06-S         12.93     2.262 No_date    27:56    57.80   n/a      .000
06677>                            + 1.0 02: KB-11-S          4.03      .577 No_date    27:55    48.44   n/a      .000
06678>                            + 1.0 02: KB-15            2.15      .377 No_date    28:00    54.15   n/a      .000
06679>                            + 1.0 02: S1               4.99     1.020 No_date    28:00    59.76   n/a      .000
06680>                       SUM= 1.0 01: KB-P1        206.72    16.418 No_date    28:01    31.86   n/a      .000
06681> R0010: C00215-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06682>       ROUTE RESERVOIR  ->      1.0 02: KB-P1         206.72    16.418 No_date    28:01    31.86   n/a      .000
06683>                        out <=  1.0 01: KB-P1R        206.72    12.427 No_date    28:17    31.86   n/a      .000
06684>                        overflow<=  1.0 03: KB-Pfovf     .00      .000 No_date     0:00      .00   n/a      .000
06685>          [MxStoRed=. 7282E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N-Ovf =    0,  Tot Dur Ovf =     0. hrs]
06686> R0010: C00216-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06687>       ADD HYD                1.0 02: KB-P1R        206.72    12.427 No_date    28:17    31.86   n/a      .000
06688>                            + 1.0 02: KB-Pfovf        .00      .000 No_date     0:00      .00   n/a      .000
06689>                       SUM= 1.0 01: KB-Pondl      206.72    12.427 No_date    28:17    31.86   n/a      .000
06690> R0010: C00217-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06691>       SAVE HYD               1.0 01: KB-Pondl      206.72    12.427 No_date    28:17    31.86   n/a      .000
06692>          fname : KB-Pondl. 0010
06693>          remark: Total Flows at KB first pond
06694> R0010: C00218-------------DTmin-1 ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
06695>       CONTINUOUS STANDHYD    1.0 01: KB-07         10.86     2.042 No_date    28:00    57.07   .882     .000
06696>          [XI MP=. 86: TIMP=. 86]
06697>          [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
06698>          [Pervious      area: IAper=  4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06699>          [Imperv
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06733> R0010: C00225-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06734>      CONTINUOUS STANDHYD    1.0 01: KB-10_1          2.37       .470 No_date   28:00   56.40  .872      .000
06735>        [ XI M*s: 86; TI M*s: 86]
06736>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06737>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06738>        [ Impervious    area: IAimp= 1. 57: SLPI=2. 00: LGI=  126. : MNI=. 013: SCI=    .0]
06739>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06740> R0010: C00226-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06741>      CONTINUOUS STANDHYD    1.0 01: KB-10_2          1.14       .229 No_date   28:00   56.40  .872      .000
06742>        [ XI M*s: 86; TI M*s: 86]
06743>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06744>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06745>        [ Impervious    area: IAimp= 1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=    .0]
06746>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06747> R0010: C00227-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06748>      CONTINUOUS STANDHYD    1.0 01: KB-12            4.86       .900 No_date   28:00   53.41  .826      .000
06749>        [ XI M*s: 79; TI M*s: 79]
06750>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06751>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06752>        [ Impervious    area: IAimp= 1. 10: SLPI=2. 00: LGI=  180. : MNI=. 013: SCI=    .0]
06753>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06754> R0010: C00228-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06755>      COMPUTE DUALHYD        1.0 01: KB-12            4.86       .900 No_date   28:00   53.41  n/a       .000
06756>        Major System    /       1.0 02: KB-12-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06757>        Minor System    \       1.0 03: KB-12-MN         4.86      .867 No_date   27:58   53.47  n/a       .000
06758>        [ MJSysSto=. 3261E+01,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06759> R0010: C00229-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06760>      ADD HYD                1.0 02: KB-12-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06761>                        +     1.0 02: KB-12-MN         4.86      .867 No_date   27:58   53.47  n/a       .000
06762>                    STAN-     1.0 01: KB-12-S          4.86      .867 No_date   27:58   53.47  n/a       .000
06763> R0010: C00230-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06764>      CONTINUOUS STANDHYD    1.0 01: KB-13            10.19     1.611 No_date   28:00   46.33  .716      .000
06765>        [ XI M*s: 64; TI M*s: 64]
06766>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06767>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06768>        [ Impervious    area: IAimp=  .79: SLPI=2. 00: LGI=  261. : MNI=. 013: SCI=    .0]
06769>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06770> R0010: C00231-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06771>      COMPUTE DUALHYD        1.0 01: KB-13            10.19     1.611 No_date   28:00   46.33  n/a       .000
06772>        Major System    /       1.0 02: KB-13-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06773>        Minor System    \       1.0 03: KB-13-MN         10.19     1.611 No_date   28:00   46.33  n/a       .000
06774>        [ MJSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06775> R0010: C00232-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06776>      ADD HYD                1.0 02: KB-13-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06777>                        +     1.0 02: KB-13-MN         10.19     1.611 No_date   28:00   46.33  n/a       .000
06778>                    SUM-      1.0 01: KB-13-S          10.19     1.611 No_date   28:00   46.33  n/a       .000
06779> R0010: C00233-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06780>      CONTINUOUS STANDHYD    1.0 01: KB-14            5.47       .898 No_date   28:00   46.33  .716      .000
06781>        [ XI M*s: 64; TI M*s: 64]
06782>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06783>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06784>        [ Impervious    area: IAimp=  .79: SLPI=2. 00: LGI=  191. : MNI=. 013: SCI=    .0]
06785>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06786> R0010: C00234-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06787>      COMPUTE DUALHYD        1.0 01: KB-14            5.47       .898 No_date   28:00   46.33  n/a       .000
06788>        Major System    /       1.0 02: KB-14-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06789>        Minor System    \       1.0 03: KB-14-MN         5.47      .873 No_date   27:59   46.40  n/a       .000
06790>        [ MJSysSto=. 1663E+01,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06791> R0010: C00235-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06792>      ADD HYD                1.0 02: KB-14-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06793>                        +     1.0 02: KB-14-MN         5.47      .873 No_date   27:59   46.40  n/a       .000
06794>                    SUM-      1.0 01: KB-14-S          5.47      .873 No_date   27:59   46.40  n/a       .000
06795> R0010: C00236-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06796>      CONTINUOUS STANDHYD    1.0 01: KB-16_2          3.42       .545 No_date   28:01   50.20  .776      .000
06797>        [ XI M*s: 71; TI M*s: 71]
06798>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06799>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06800>        [ Impervious    area: IAimp=  .16: SLPI=  .30: LGI=  151. : MNI=. 013: SCI=    .0]
06801>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06802> R0010: C00237-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06803>      ADD HYD                1.0 02: KB-Pond1         206. 72   12. 427 No_date   28:17   31. 86  n/a       .000
06804>                        +     1.0 02: KB-07-S          10. 86    2. 042 No_date   28:00   57. 07  n/a       .000
06805>                        +     1.0 02: KB-08-S          6. 61     1. 058 No_date   28:00   46. 37  n/a       .000
06806>                        +     1.0 02: KB-09            2. 60      .515 No_date   28:00   56. 40  n/a       .000
06807>                        +     1.0 02: KB-10_1          2. 37      .470 No_date   28:00   56. 40  n/a       .000
06808>                        +     1.0 02: KB-10_2          1. 14      .229 No_date   28:00   56. 40  n/a       .000
06809>                        +     1.0 02: KB-12-S          4. 86      .867 No_date   27:58   53. 47  n/a       .000
06810>                        +     1.0 02: KB-13-S          10. 19    1. 611 No_date   28:00   46. 33  n/a       .000
06811>                        +     1.0 02: KB-14-S          5. 47      .873 No_date   27:59   46. 40  n/a       .000
06812>                        +     1.0 02: KB-16_2          3. 42      .545 No_date   28:01   50. 20  n/a       .000
06813>                    SUM-      1.0 01: KB-P2            254. 24   19. 235 No_date   28:01   35. 46  n/a       .000
06814> R0010: C00238-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06815>      ROUTE RESERVOIR -->       1.0 02: KB-P2            254. 24   19. 235 No_date   28:01   35. 46  n/a       .000
06816>                        out <=    1.0 01: KB-P2R           254. 24   15. 083 No_date   28:10   35. 46  n/a       .000
06817>                        overflow <=   1.0 03: KB-P2ovf        .00       .000 No_date   0:00     .00  n/a       .000
06818>        {MkStoUsed=. 7575E+00  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =     0,  Tot Dur Or f =     0. hrs}
06819> R0010: C00239-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06820>      ADD HYD                1.0 02: KB-P2R           254. 24   15. 083 No_date   28:10   35. 46  n/a       .000
06821>                        +     1.0 02: KB-P2ovf         .00       .000 No_date   0:00     .00  n/a       .000
06822>                    SUM-      1.0 01: KB-Pond2         254. 24   15. 083 No_date   28:10   35. 46  n/a       .000
06823> R0010: C00240-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06824>      SAVE HYD               1.0 01: KB-Pond2         254. 24   15. 083 No_date   28:10   35. 46  n/a       .000
06825>        fname : KB-Pond2. 0010
06826>        remark: Total Flows at KB second pond
06827> R0010: C00241-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06828>      CONTINUOUS STANDHYD    1.0 01: KB-16_1          2.80       .465 No_date   28:01   52.17  .806      .000
06829>        [ XI M*s: 75; TI M*s: 75]
06830>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06831>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06832>        [ Impervious    area: IAimp=  .16: SLPI=  .30: LGI=  137. : MNI=. 013: SCI=    .0]
06833>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06834> R0010: C00242-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06835>      ADD HYD                1.0 02: KB-Pond2         254. 24   15. 083 No_date   28:10   35. 46  n/a       .000
06836>                        +     1.0 02: KB-16_1          2. 80      .465 No_date   28:01   52. 17  n/a       .000
06837>                    SUM-      1.0 01: KB-P3            257. 04   15. 295 No_date   28:08   35. 64  n/a       .000
06838> R0010: C00243-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06839>      ROUTE RESERVOIR -->       1.0 02: KB-P3            257. 04   15. 295 No_date   28:08   35. 64  n/a       .000
06840>                        out <=    1.0 01: KB-P3R           12. 26     .051 No_date   17:31   35. 64  n/a       .000
06841>                        overflow <=   1.0 03: KB-P3ovf        244. 78   15. 243 No_date   28:09   35. 64  n/a       .000
06842>        {MkStoUsed=. 1993E-02  m3,  Tot Or f Vol =. 8724E+01  m3,  N- Or f =     2,  Tot Dur Or f =    23. hrs}
06843> R0010: C00244-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06844>      ADD HYD                1.0 02: KB-P3R           12. 26     .051 No_date   17:31   35. 64  n/a       .000
06845>                        +     1.0 02: KB-P3ovf         244. 78   15. 243 No_date   28:09   35. 64  n/a       .000
06846>                    SUM-      1.0 01: KB-Pond3         257. 04   15. 294 No_date   28:09   35. 64  n/a       .000
06847> R0010: C00245-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06848>      SAVE HYD               1.0 01: KB-Pond3         257. 04   15. 294 No_date   28:09   35. 64  n/a       .000
06849>        fname : KB-Pond3. 0010
06850>        remark: Total Flows at KB third pond
06851> ********************************************************************************
06852> #     EXISTING / PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility ( 118080),  SWM Modeling Approach,  NOVATECH Report Ju
06853> #     - TO FRASER-CLARKE DRAIN
06854> ********************************************************************************
06855> R0010: C00246-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06856>      CONTINUOUS STANDHYD    1.0 01: FC-01            8. 03     1. 049 No_date   28:01   37. 67  .582      .000
06857>        [ XI M*s: 47; TI M*s: 47]
06858>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06859>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06860>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  231. : MNI=. 013: SCI=    .0]
06861>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06862> R0010: C00247-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06863>      COMPUTE DUALHYD        1.0 01: FC-02            8. 03     1. 049 No_date   28:01   37. 67  n/a       .000
06864>        Major System    /       1.0 02: FC-01-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06865>        Minor System    \       1.0 03: FC-01-MN         8. 03     .756 No_date   28:17   37. 91  n/a       .000
06866>        [ MJSysSto=. 7270E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06867> R0010: C00248-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06868>      ADD HYD                1.0 02: FC-01-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06869>                        +     1.0 02: FC-01-MN         8. 03     .756 No_date   27:55   37. 91  n/a       .000
06870>                    SUM-      1.0 01: FC-01-S          8. 03     .756 No_date   27:55   37. 91  n/a       .000
06871> R0010: C00249-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06872>      CONTINUOUS STANDHYD    1.0 01: FC-02            16. 05    2. 930 No_date   28:01   59. 76  .924      .000
06873>        [ XI M*s: 93; TI M*s: 93]
06874>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06875>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06876>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  327. : MNI=. 013: SCI=    .0]
06877>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06878> R0010: C00250-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06879>      COMPUTE DUALHYD        1.0 01: FC-02            16. 05    2. 930 No_date   28:01   59. 76  n/a       .000
06880>        Major System    /       1.0 02: FC-02-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06881>        Minor System    \       1.0 03: FC-02-MN         16. 05    1. 159 No_date   27:46   59. 94  n/a       .000
06882>        [ MJSysSto=. 1407E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06883> R0010: C00251-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06884>      ADD HYD                1.0 02: FC-01-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06885>                        +     1.0 02: FC-02-MN         16. 05    1. 159 No_date   27:46   59. 94  n/a       .000
06886>                    SUM-      1.0 01: FC-02-S          16. 05    1. 159 No_date   27:46   59. 94  n/a       .000
06887> R0010: C00252-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06888>      CONTINUOUS STANDHYD    1.0 01: FC-03            7. 37     1. 130 No_date   28:01   45. 83  .708      .000
06889>        [ XI M*s: 64; TI M*s: 64]
06890>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06891>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06892>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  222. : MNI=. 013: SCI=    .0]
06893>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06894> R0010: C00253-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06895>      COMPUTE DUALHYD        1.0 01: FC-03            7. 37     1. 130 No_date   28:01   45. 83  n/a       .000
06896>        Major System    /       1.0 02: FC-03-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06897>        Minor System    \       1.0 03: FC-03-MN         7. 37     .358 No_date   27:45   45. 93  n/a       .000
06898>        [ MJSysSto=. 6763E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06899> R0010: C00254-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06900>      ADD HYD                1.0 02: FC-03-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06901>                        +     1.0 02: FC-03-MN         7. 37     .358 No_date   27:45   45. 93  n/a       .000
06902>                    SUM-      1.0 01: FC-03-S          7. 37     .358 No_date   27:45   45. 93  n/a       .000
06903> R0010: C00255-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06904>      CONTINUOUS STANDHYD    1.0 01: FC-04            12. 87    1. 906 No_date   28:01   45. 83  .708      .000
06905>        [ XI M*s: 64; TI M*s: 64]
06906>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06907>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06908>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  293. : MNI=. 013: SCI=    .0]
06909>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06910> R0010: C00256-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06911>      COMPUTE DUALHYD        1.0 01: FC-04            12. 87    1. 906 No_date   28:01   45. 83  n/a       .000
06912>        Major System    /       1.0 02: FC-04-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06913>        Minor System    \       1.0 03: FC-04-MN         12. 87    .741 No_date   27:46   45. 93  n/a       .000
06914>        [ MJSysSto=. 9380E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06915> R0010: C00257-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06916>      ADD HYD                1.0 02: FC-04-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06917>                        +     1.0 02: FC-04-MN         12. 87    .741 No_date   27:46   45. 93  n/a       .000
06918>                    SUM-      1.0 01: FC-04-S          12. 87    .741 No_date   27:46   45. 93  n/a       .000
06919> ********************************************************************************
06920> #     PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility ( 118080),  SWM Modeling Approach,  NOVATECH Report June,  2020)
06921> #     - TO JOCK RIVER
06922> ********************************************************************************
06923> R0010: C00258-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06924>      CONTINUOUS STANDHYD    1.0 01: JR-01            8. 24     1. 257 No_date   28:01   45. 83  .708      .000
06925>        [ XI M*s: 64; TI M*s: 64]
06926>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06927>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06928>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  234. : MNI=. 013: SCI=    .0]
06929>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06930> R0010: C00259-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06931>      COMPUTE DUALHYD        1.0 01: JR-02            8. 24     1. 257 No_date   28:01   45. 83  n/a       .000
06932>        Major System    /       1.0 02: JR-01-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06933>        Minor System    \       1.0 03: JR-01-MN         8. 24     .563 No_date   28:39   46. 14  n/a       .000
06934>        [ MJSysSto=. 4889E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06935> R0010: C00260-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06936>      ADD HYD                1.0 02: JR-01-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06937>                        +     1.0 02: JR-01-MN         8. 24     .563 No_date   27:47   46. 14  n/a       .000
06938>                    SUM-      1.0 01: JR-01-S          8. 24     .563 No_date   27:47   46. 14  n/a       .000
06939> R0010: C00261-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06940>      CONTINUOUS STANDHYD    1.0 01: JR-02            1. 59      .264 No_date   28:00   45. 83  .708      .000
06941>        [ XI M*s: 64; TI M*s: 64]
06942>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
06943>        [ Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
06944>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  103. : MNI=. 013: SCI=    .0]
06945>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
06946> R0010: C00262-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06947>      COMPUTE DUALHYD        1.0 01: JR-02            1. 59      .264 No_date   28:00   45. 83  n/a       .000
06948>        Major System    /       1.0 02: JR-02-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06949>        Minor System    \       1.0 03: JR-02-MN         1. 59     .153 No_date   27:51   46. 12  n/a       .000
06950>        [ MJSysSto=. 5453E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
06951> R0010: C00263-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06952>      ADD HYD                1.0 02: JR-02-MJ         .00       .000 No_date   0:00     .00  n/a       .000
06953>                        +     1.0 02: JR-02-MN         1. 59     .153 No_date   27:51   46. 12  n/a       .000
06954>                    SUM-      1.0 01: JR-02-S          1. 59     .153 No_date   27:51   46. 12  n/a       .000
06955> ********************************************************************************
06956> #     Catchment FRASER
06957> #     - To Fraser-Clarke drain ( north of the Jock)
06958> #     - Developed land with assumed 43% imp.
06959> #     - 2020-12-17 Change Fraser area to be 35. 1 as measured from QGIS
06960> #     - 2020-12-17 All Fraser is undeveloped ( Nashyd)
06961> ********************************************************************************
06962> R0010: C00264-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06963>      CONTINUOUS NASHYD      1.0 01: FRASER-DRN       13. 65    .447 No_date   28:22   26. 85  .415      .000
06964>        [ CN= 77. 0: N=  3. 00: Tp=   .67]
06965>        [ IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK=  .010]
06966>        [ InterEvent Time=  12. 00]
06967> R0010: C00265-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06968>      CONTINUOUS NASHYD      1.0 01: FRASER-D         21. 61    .514 No_date   28:40   26. 85  .415      .000
06969>        [ CN= 77. 0: N=  3. 00: Tp=   .67]
06970>        [ IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK=  .010]
06971>        [ InterEvent Time=  12. 00]
06972> R0010: C00266-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06973>      ADD HYD                1.0 02: KB-Pond3         257. 04   15. 294 No_date   28:09   35. 64  n/a       .000
06974>                        +     1.0 02: S-1-B            55. 36    1. 740 No_date   28:24   26. 85  n/a       .000
06975>                        +     1.0 02: FRASER-DRN       13. 65     .447 No_date   28:22   26. 85  n/a       .000
06976>                        +     1.0 02: FRASER-D         21. 61     .514 No_date   28:40   26. 85  n/a       .000
06977>                        +     1.0 02: N_KB             54279. 34  86. 222 No_date   36:19   22. 84  n/a       .000
06978>                        +     1.0 02: FC-01-S          8. 03      .756 No_date   27:55   37. 91  n/a       .000
06979>                        +     1.0 02: FC-02-S          16. 05    1. 159 No_date   27:46   59. 94  n/a       .000
06980>                        +     1.0 02: FC-03-S          7. 37      .358 No_date   27:45   45. 93  n/a       .000
06981>                    SUM-      1.0 01: 4241             54658. 45  86. 752 No_date   36:15   22. 92  n/a       .000
06982> R0010: C00267-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06983>      SAVE HYD               1.0 01: 4241             54658. 45  86. 752 No_date   36:15   22. 92  n/a       .000
06984>        fname : 4241. 0010
06985>        remark: Total Flows at Ken-Burnett Outlet
06986> # Hydrograph from Node Ken-Burnett to station 3633
06987> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
06988> #
06989> R0010: C00268-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06990>      ROUTE CHANNEL     ->      1.0 02: 4241             54658. 45  86. 752 No_date   36:15   22. 92  n/a       .000
06991>        [ RDT=  1. 00]  out <-    1.0 01: 4241-out         54658. 45  86. 790 No_date   36:12   22. 92  n/a       .000
06992>        [ LS/ n=  294. /  . 109/ . 035]
06993>        [ Vmax=  1. 177: Dmax=  2. 026]
06994> R0010: C00269-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06995>      ADD HYD                1.0 02: 4241-out         54658. 45  86. 790 No_date   36:12   22. 92  n/a       .000
06996>                        +     1.0 02: FC-04-S          12. 87    .741 No_date   27:46   45. 93  n/a       .000
06997>                        +     1.0 02: JR-01-S          8. 24     .563 No_date   27:47   46. 14  n/a       .000
06998>                        +     1.0 02: JR-02-S          1. 59     .153 No_date   27:51   46. 12  n/a       .000
06999>                    SUM-      1.0 01: N_KB             54681. 14  86. 824 No_date   36:12   22. 93  n/a       .000
07000> R0010: C00270-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07001>      SAVE HYD               1.0 01: SN_KB            54681. 14  86. 824 No_date   36:12   22. 93  n/a       .000
07002>        fname : SN_KB. 0010
07003>        remark: HYD_COMMENT=[ "Total Flows before Station 3633]
07004> # Hydrograph from Station 3633 to Node Todd
07005> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
07006> # JFSA 2021-02-26 change the channel length ( at station 3633) from 650m to 608m and change the slope from 0. 0498% to 0. 2
07007> #
07008> R0010: C00271-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07009>      ROUTE CHANNEL     ->      1.0 02: SN_KB            54681. 14  86. 824 No_date   36:12   22. 93  n/a       .000
07010>        [ RDT=  1. 00]  out <-    1.0 01: N_TO             54681. 14  86. 765 No_date   36:18   22. 93  n/a       .000
07011>        [ LS/ n=  608. /  . 247/ . 035]
07012>        [ Vmax=  1. 560: Dmax=  1. 526]
07013> #
07014> #     Catchment Greenbank
07015> #     - To Greenbank Drain ( south of the Jock)
07016> #     - JFSA 2021-01-18 add Greenbank pond as per JFSA,  P598( 06)-15,  June 2016
07017> #     - JFSA 2021-01-19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
07018> ********************************************************************************
07019> R0010: C00272-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07020>      CONTINUOUS STANDHYD    1.0 01: Greenbank        36. 60    4. 662 No_date   28:02   49. 38  .763      .000
07021>        [ XI M*s: 64; TI M*s: 68]
07022>        [ LOSS= 2 : CN= 77. 0]
07023>        [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07024>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  494. : MNI=. 013: SCI=    .0]
07025>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
07026>        [ SM N= 31. 15:  SMX= 207. 66:  SK=  .010]
07027> R0010: C00273-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07028>      ROUTE RESERVOIR -->       1.0 02: Greenbank        36. 60    4. 662 No_date   28:02   49. 38  n/a       .000
07029>                        out <=    1.0 01: GreenB_MN        36. 60    1. 697 No_date   28:18   49. 38  n/a       .000
07030>                        overflow <=   1.0 03: GreenB_MJ        .00       .000 No_date   0:00     .00  n/a       .000
07031>        {MkStoUsed=. 8299E+00  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =     0,  Tot Dur Or f =     0. hrs}
07032> R0010: C00274-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07033>      ADD HYD                1.0 02: N_TO             54681. 14  86. 765 No_date   36:18   22. 93  n/a       .000
07034>                        +     1.0 02: GreenB_MJ        .00       .000 No_date   0:00     .00  n/a       .000
07035>                        +     1.0 02: GreenB_MN        36. 60    1. 697 No_date   28:18   49. 38  n/a       .000
07036>                    SUM-      1.0 01: GreenB           54717. 74  86. 895 No_date   36:17   22. 95  n/a       .000
07037> R0010: C00275-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07038>      SAVE HYD               1.0 01: GreenB           54717. 74  86. 895 No_date   36:17   22. 95  n/a       .000
07039>        fname : GreenB. 0010
07040>        remark: Total Flows at Greenbank Drain
07041> ********************************************************************************
07042> #     Catchment TODD
07043> #     - To Todd Drain ( south of the Jock)
07044> #     - Subdivision with 43% imp. as per Barrhaven South MSS
07045> #     - 2020-11-30 increase imp. based on P598( 04)-11
07046> #     - 2020-11-30 update TODD Tributary Drainage Area to = 146. 015 ha based on P598( 04)-11
07047> #     - 2020-11-30 split TODD Area to MAJOR,  MINOR,  POND and ALL
07048> ********************************************************************************
07049> #     JFSA 2021-01-19 add "TODD_MN1" as part of Clarke( "WCLARK_MI") and remove it from Todd
07050> R0010: C00276-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07051>      CONTINUOUS STANDHYD    1.0 01: TODD_MN2         2. 10     .282 No_date   28:00   44. 92  .694      .000
07052>        [ XI M*s: 53; TI M*s: 57]
07053>        [ LOSS= 2 : CN= 77. 0]
07054>        [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07055>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  118. : MNI=. 013: SCI=    .0]
07056>        [ IaREC mp=   4. 00: IaRECper=    4. 00]
07057>        [ SM N= 31. 15:  SM
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07107> R0010: C00284-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07108>       CONTI NUOUS  STANDHYD       1. 0  01: A2                25. 50      2. 388  No_date    28: 03     40. 97  . 633       . 000
07109>         [ XI M=. 42: TI M=. 52]
07110>         [ LOSS= 2 : CN= 75. 0]
07111>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07112>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  566. : MNI =. 013: SCI =    . 0]
07113>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07114>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07115> R0010: C00285-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07116>       COMPUTE  DUALHYD       1. 0  01: A2                25. 50      2. 388  No_date    28: 03     40. 97  n/ a        . 000
07117>         Major  System    /          1. 0  02: A2- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07118>         Mi nor  System    \          1. 0  03: A2- MN         25. 50      1. 818  No_date    27: 57     40. 97  n/ a        . 000
07119>         [ MjSysSto=. 2896E+03,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07120> R0010: C00286-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07121>       ADD  HYD                  2. 10       . 268  No_date    27: 58     44. 92  n/ a        . 000
07122>                                +          1. 0  02: TODD_MN3         . 12       . 016  No_date    28: 00     44. 90  n/ a        . 000
07123>                                +          1. 0  02: TODD_Mj           . 09       . 190  No_date    28: 03     46. 20  n/ a        . 000
07124>                                +          1. 0  02: TODD_P           3. 06       . 451  No_date    28: 00     48. 23  n/ a        . 000
07125>                                +          1. 0  02: TODD_ALL       112. 91     10. 943  No_date    28: 05     44. 71  n/ a        . 000
07126>                                +          1. 0  02: W_CLAR_Mi n       1. 77       . 213  No_date    27: 58     43. 97  n/ a        . 000
07127>                                SUM=       1. 0  03: TODD           120. 03     11. 699  No_date    28: 03     44. 79  n/ a        . 000
07128> R0010: C00287-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07129>       SAVE  HYD                 1. 0  01: TODD           120. 03     11. 699  No_date    28: 03     44. 79  n/ a        . 000
07130>         fname : TODD 0010
07131>         remark: Total  Flows  at  Todd  Drain
07132> #*************************************************************************
07133> #   Todd  Pond  3
07134> #   -  Rating  curve  obtained  from  Barrhaven  South  MSS  modeling
07135> #   -  stantec  2007,  Tributary  Drainage  Area  to  MSS  Pond  3 = 193 ha
07136> #*************************************************************************
07137> R0010: C00288-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07138>       ROUTE  RESERVOIR  ->       1. 0  02: TODD           120. 03     11. 699  No_date    28: 03     44. 79  n/ a        . 000
07139>                                 out  <=     1. 0  03: MS_P3          120. 03      6. 151  No_date    28: 20     44. 79  n/ a        . 000
07140>                 overflow  <=     1. 0  03: P3- OVF            . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07141>         [ MxSt oSt ed=. 2461E+01    m3,  Tot Or Vol =. 0000E+00    m3,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07142> R0010: C00289-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07143>       ADD  HYD                  +          1. 0  02: Gr eenB        54717. 74     86. 895  No_date    36: 17     22. 95  n/ a        . 000
07144>                                 +          1. 0  02: MS_P3          120. 03      6. 151  No_date    28: 20     44. 79  n/ a        . 000
07145>                                 +          1. 0  02: P3- OVF            . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07146>                                 +          1. 0  02: TODD_MN3          . 00       . 011  No_date    28: 00     44. 92  n/ a        . 000
07147>                                 +          1. 0  02: A2- MI             . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07148>                                 SUM=       1. 0  03: SN_TO        54837. 78     87. 200  No_date    36: 16     23. 00  n/ a        . 000
07149> R0010: C00290-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07150>       SAVE  HYD                 1. 0  01: SN_TO          54837. 78     87. 200  No_date    36: 16     23. 00  n/ a        . 000
07151>         fname : SN_TO 0010
07152>         remark: Total  Flows  at  Todd  Drain
07153> #
07154> #  Hydrograph from Todd Drain routed to Corrigan Drain
07155> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
07156> # 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so the model will be more stable and g
07157> R0010: C00291-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07158>       ROUTE  CHANNEL          ->       1. 0  02: SN_TO          54837. 78     87. 200  No_date    36: 16     23. 00  n/ a        . 000
07159> *     [ RDT=  1. 00]  out <-          1. 0  01: N_TO          54837. 78     87. 112  No_date    36: 28     23. 00  n/ a        . 000
07160>         [ L/ S/ n=   280. / . 050/ . 045]
07161>         [ Vmx=   . 886: Dmx=  2. 877]
07162> R0010: C00292-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07163>       SAVE  HYD                 1. 0  01: N_TO           54837. 78     87. 112  No_date    36: 28     23. 00  n/ a        . 000
07164>         fname : N_TO 0010
07165>         remark: Total  inflows  at  Station  2462
07166> #*************************************************************************
07167> #      Catchment  CORRIG
07168> #    - To  Corrigan  Drain  (south  of  the  Jock)
07169> #    - Primarily  Developed  (medium density)
07170> #    - JFSA  JAN  2021,  add  Corrigan  subcatchments  as  per  IBI,  July  2008
07171> #*************************************************************************
07172> R0010: C00293-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07173>       CONTI NUOUS  STANDHYD       1. 0  01: cor r1              15. 87      2. 113  No_date    28: 01     48. 23  . 746       . 000
07174>         [ XI M=. 63: TI M=. 63]
07175>         [ LOSS= 2 : CN= 77. 0]
07176>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07177>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  325. : MNI =. 013: SCI =    . 0]
07178>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07179>         [ SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
07180> R0010: C00294-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07181>       COMPUTE  DUALHYD       1. 0  01: cor r1              15. 87      2. 113  No_date    28: 01     48. 23  n/ a        . 000
07182>         Major  System    /          1. 0  02: cor r1- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07183>         Mi nor  System    \          1. 0  03: cor r1- MN         15. 87      1. 818  No_date    28: 09     48. 38  n/ a        . 000
07184>         [ MjSysSto=. 8936E+02,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07185> R0010: C00295-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07186>       CONTI NUOUS  NASHYD         1. 0  01: cor r2              12. 47       . 209  No_date    29: 11     26. 85  . 415       . 000
07187>         [ CN=  77. 0:  N=  3. 00:  Tp=   1. 10]
07188>         [ I a RECi =   4. 00:  SMN=  31. 15:  SMXx=207. 66:  SK=  . 010]
07189>         [ I nter Event  Ti me=   12. 00]
07190> R0010: C00296-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07191>       CONTI NUOUS  STANDHYD       1. 0  01: AI - Cor r ig           15. 75      1. 640  No_date    28: 02     40. 97  . 633       . 000
07192>         [ XI M=. 42: TI M=. 52]
07193>         [ LOSS= 2 : CN= 75. 0]
07194>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07195>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  324. : MNI =. 013: SCI =    . 0]
07196>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07197>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07198> R0010: C00297-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07199>       COMPUTE  DUALHYD       1. 0  01: AI - Cor r ig           15. 75      1. 640  No_date    28: 02     40. 97  n/ a        . 000
07200>         Major  System    /          1. 0  02: AI - MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07201>         Mi nor  System    \          1. 0  03: AI - MN         15. 75      1. 640  No_date    28: 02     40. 97  n/ a        . 000
07202>         [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07203> R0010: C00298-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07204>       CONTI NUOUS  NASHYD         1. 0  01: BI                2. 77       . 072  No_date    28: 09     16. 64  . 257       . 000
07205>         [ CN=  56. 0:  N=  3. 00:  Tp=    . 23]
07206>         [ I a RECi =   4. 00:  SMN=  79. 69:  SMXx=531. 24:  SK=  . 010]
07207>         [ I nter Event  Ti me=   12. 00]
07208> R0010: C00299-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07209>       CONTI NUOUS  STANDHYD       1. 0  01: A4                1. 27       . 178  No_date    28: 00     48. 63  . 752       . 000
07210>         [ XI M=. 65: TI M=. 65]
07211>         [ LOSS= 2 : CN= 75. 0]
07212>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07213>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  253. : MNI =. 013: SCI =    . 0]
07214>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07215>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07216> R0010: C00300-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07217>       COMPUTE  DUALHYD       1. 0  01: A4                1. 27       . 178  No_date    28: 00     48. 63  n/ a        . 000
07218>         Major  System    /          1. 0  02: A4- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07219>         Mi nor  System    \          1. 0  03: A4- MN          1. 27       . 178  No_date    28: 00     48. 63  n/ a        . 000
07220>         [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07221> R0010: C00301-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07222>       ADD  HYD                  +          1. 0  02: A1- MI             . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07223>                                 +          1. 0  02: A1- MN           15. 75      1. 640  No_date    28: 02     40. 97  n/ a        . 000
07224>                                 +          1. 0  02: cor r1- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07225>                                 +          1. 0  02: cor r1- MN         15. 87      1. 818  No_date    28: 09     48. 38  n/ a        . 000
07226>                                 +          1. 0  02: cor r2            12. 47       . 209  No_date    29: 11     26. 85  n/ a        . 000
07227>                                 +          1. 0  02: BI                2. 77       . 072  No_date    28: 09     16. 64  n/ a        . 000
07228>                                 +          1. 0  02: A4- MN            1. 27       . 178  No_date    28: 00     48. 63  n/ a        . 000
07229>                                 SUM=       1. 0  01: MHI 01           48. 13      3. 734  No_date    28: 02     38. 56  n/ a        . 000
07230> R0010: C00302-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07231>       SAVE  HYD                 1. 0  01: MHI 01           48. 13      3. 734  No_date    28: 02     38. 56  n/ a        . 000
07232>         fname : MH01. 0010
07233>         remark: Total  Flows  at  MH01
07234> R0010: C00303-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07235>       ROUTE  PI PE              ->       1. 0  02: MHI 01           48. 13      3. 734  No_date    28: 02     38. 56  n/ a        . 000
07236> *     [ RDT=  1. 00]  out <-          1. 0  01: 101- 102           48. 13      3. 662  No_date    28: 03     38. 56  n/ a        . 000
07237>         [ L/ S/ n=   368. / . 540/ . 013]
07238>         [ Vmx=  3. 084: Dmx=  1. 088]
07239>         [ Di n=  1. 05: Dused=  1. 33]
07240> R0010: C00304-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07241>       ADD  HYD                  +          1. 0  02: A2- MN           25. 50      1. 818  No_date    27: 57     40. 97  n/ a        . 000
07242>                                 +          1. 0  02: 101- 102           48. 13      3. 662  No_date    28: 03     38. 56  n/ a        . 000
07243>                                 SUM=       1. 0  01: MHI 02           73. 63      5. 480  No_date    28: 03     39. 39  n/ a        . 000
07244> R0010: C00305-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07245>       SAVE  HYD                 1. 0  01: MHI 02           73. 63      5. 480  No_date    28: 03     39. 39  n/ a        . 000
07246>         fname : MH02. 0010
07247>         remark: Total  Flows  at  MH02
07248> R0010: C00306-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07249>       CONTI NUOUS  STANDHYD       1. 0  01: A5                1. 60       . 236  No_date    28: 01     51. 11  . 790       . 000
07250>         [ XI M=. 71: TI M=. 71]
07251>         [ LOSS= 2 : CN= 75. 0]
07252>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07253>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  300. : MNI =. 013: SCI =    . 0]
07254>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07255>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07256> R0010: C00307-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07257>       ADD  HYD                  +          1. 0  02: A4- MI             . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07258>                                 +          1. 0  02: A5                1. 60       . 236  No_date    28: 01     51. 11  n/ a        . 000
07259>                                 SUM=       1. 0  01: AST              1. 60       . 236  No_date    28: 01     51. 11  n/ a        . 000
07260> R0010: C00308-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07261>       COMPUTE  DUALHYD       1. 0  01: AST              1. 60       . 236  No_date    28: 01     51. 11  n/ a        . 000
07262>         Major  System    /          1. 0  02: A5- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07263>         Mi nor  System    \          1. 0  03: A5- MN          1. 60       . 236  No_date    28: 01     51. 11  n/ a        . 000
07264>         [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07265> R0010: C00309-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07266>       ROUTE  PI PE              ->       1. 0  02: MHI 02           73. 63      5. 480  No_date    28: 03     39. 39  n/ a        . 000
07267> *     [ RDT=  1. 00]  out <-          1. 0  01: 102- 103           73. 63      5. 291  No_date    28: 06     39. 39  n/ a        . 000
07268>         [ L/ S/ n=   504. / . 280/ . 013]
07269>         [ Vmx=  2. 654: Dmx=  1. 421]
07270>         [ Di n=  1. 50: Dused=  1. 73]
07271> R0010: C00310-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07272>       ADD  HYD                  +          1. 0  02: 102- 103           73. 63      5. 291  No_date    28: 06     39. 39  n/ a        . 000
07273>                                 +          1. 0  02: A5- MN             1. 60       . 236  No_date    28: 01     51. 11  n/ a        . 000
07274>                                 SUM=       1. 0  01: MHI 03           75. 23      5. 462  No_date    28: 05     39. 64  n/ a        . 000
07275> R0010: C00311-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07276>       SAVE  HYD                 1. 0  01: MHI 03           75. 23      5. 462  No_date    28: 05     39. 64  n/ a        . 000
07277>         fname : MH03. 0010
07278>         remark: Total  Flows  at  MH03
07279> R0010: C00312-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07280>       ROUTE  PI PE              ->       1. 0  02: MHI 03           75. 23      5. 462  No_date    28: 05     39. 64  n/ a        . 000
07281>         [ RDT=  1. 00]  out <-          1. 0  01: 103- 104           75. 23      5. 382  No_date    28: 07     39. 64  n/ a        . 000
07282>         [ L/ S/ n=   438. / . 460/ . 013]
07283>         [ Vmx=  3. 265: Dmx=  1. 205]
07284>         [ Di n=  1. 65: Dused=  1. 65]
07285> R0010: C00313-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07286>       CONTI NUOUS  STANDHYD       1. 0  01: A6                1. 56       . 232  No_date    28: 00     51. 11  . 790       . 000
07287>         [ XI M=. 71: TI M=. 71]
07288>         [ LOSS= 2 : CN= 75. 0]
07289>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07290>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  280. : MNI =. 013: SCI =    . 0]
07291>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07292>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07293> R0010: C00314-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07294>       ADD  HYD                  +          1. 0  02: A5- MI             . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07295>                                 +          1. 0  02: A6                1. 56       . 232  No_date    28: 00     51. 11  n/ a        . 000
07296>                                 SUM=       1. 0  01: AGT              1. 56       . 232  No_date    28: 00     51. 11  n/ a        . 000
07297> R0010: C00315-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07298>       COMPUTE  DUALHYD       1. 0  01: AGT              1. 56       . 232  No_date    28: 00     51. 11  n/ a        . 000
07299>         Major  System    /          1. 0  02: A6- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07300>         Mi nor  System    \          1. 0  03: A6- MN          1. 56       . 232  No_date    28: 00     51. 11  n/ a        . 000
07301>         [ MjSysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07302> R0010: C00316-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07303>       ADD  HYD                  +          1. 0  02: A6- MN            1. 56       . 232  No_date    28: 00     51. 11  n/ a        . 000
07304>                                 +          1. 0  02: 103- 104           75. 23      5. 382  No_date    28: 07     39. 64  n/ a        . 000
07305>                                 SUM=       1. 0  01: MHI 04           30. 14      3. 314  No_date    28: 00     46. 20  n/ a        . 000
07306>                                 SUM=       1. 0  01: MHI 04          106. 93      8. 816  No_date    28: 05     41. 66  n/ a        . 000
07307> R0010: C00317-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07308>       SAVE  HYD                 1. 0  01: MHI 04           106. 93      8. 816  No_date    28: 05     41. 66  n/ a        . 000
07309>         fname : MH04. 0010
07310>         remark: Total  Flows  at  MH04
07311> R0010: C00318-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07312>       CONTI NUOUS  STANDHYD       1. 0  01: B2                12. 31      1. 229  No_date    28: 02     41. 19  . 637       . 000
07313>         [ XI M=. 41: TI M=. 54]
07314>         [ LOSS= 2 : CN= 75. 0]
07315>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07316>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  417. : MNI =. 013: SCI =    . 0]
07317>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07318>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07319> R0010: C00319-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07320>       COMPUTE  DUALHYD       1. 0  01: B2                12. 31      1. 229  No_date    28: 02     41. 19  n/ a        . 000
07321>         Major  System    /          1. 0  02: B2- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07322>         Mi nor  System    \          1. 0  03: B2- MN          12. 31      1. 029  No_date    27: 58     41. 28  n/ a        . 000
07323>         [ MjSysSto=. 7604E+02,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07324> R0010: C00320-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07325>       ROUTE  PI PE              ->       1. 0  02: B2- MN          12. 31      1. 029  No_date    27: 58     41. 28  n/ a        . 000
07326>         [ RDT=  1. 00]  out <-          1. 0  01: 315- 333           12. 31      1. 019  No_date    28: 12     41. 28  n/ a        . 000
07327>         [ L/ S/ n=   254. / . 100/ . 013]
07328>         [ Vmx=  1. 220: Dmx=   . 838]
07329>         [ Di n=  1. 20: Dused=  1. 20]
07330> R0010: C00321-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07331>       CONTI NUOUS  STANDHYD       1. 0  01: B3                5. 59       . 579  No_date    28: 02     41. 19  . 637       . 000
07332>         [ XI M=. 41: TI M=. 54]
07333>         [ LOSS= 2 : CN= 75. 0]
07334>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07335>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  345. : MNI =. 013: SCI =    . 0]
07336>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07337>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07338> R0010: C00322-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07339>       COMPUTE  DUALHYD       1. 0  01: B3                5. 59       . 579  No_date    28: 02     41. 19  n/ a        . 000
07340>         Major  System    /          1. 0  02: B3- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07341>         Mi nor  System    \          1. 0  03: B3- MN          5. 59       . 459  No_date    27: 57     41. 35  n/ a        . 000
07342>         [ MjSysSto=. 4795E+02,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07343> R0010: C00323-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07344>       ADD  HYD                  +          1. 0  02: B3- MN            5. 59       . 459  No_date    27: 57     41. 35  n/ a        . 000
07345>                                 +          1. 0  02: 315- 333           12. 31      1. 019  No_date    28: 12     41. 28  n/ a        . 000
07346>                                 SUM=       1. 0  01: MHI 33           17. 90      1. 478  No_date    28: 12     41. 30  n/ a        . 000
07347> R0010: C00324-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07348>       SAVE  HYD                 1. 0  01: MHI 33           17. 90      1. 478  No_date    28: 12     41. 30  n/ a        . 000
07349>         fname : MH33. 0010
07350>         remark: Total  Flows  at  MH33
07351> R0010: C00325-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07352>       ROUTE  PI PE              ->       1. 0  02: MHI 33           17. 90      1. 478  No_date    28: 12     41. 30  n/ a        . 000
07353> *     [ RDT=  1. 00]  out <-          1. 0  01: 333- 335           17. 90      1. 450  No_date    28: 14     41. 30  n/ a        . 000
07354>         [ L/ S/ n=   251. / . 100/ . 013]
07355>         [ Vmx=  1. 300: Dmx=  1. 054]
07356>         [ Di n=  1. 20: Dused=  1. 28]
07357> R0010: C00326-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07358>       ROUTE  PI PE              ->       1. 0  02: 333- 335           17. 90      1. 450  No_date    28: 14     41. 30  n/ a        . 000
07359> *     [ RDT=  1. 00]  out <-          1. 0  01: 335- 338           17. 90      1. 447  No_date    28: 14     41. 30  n/ a        . 000
07360>         [ L/ S/ n=   185. / . 100/ . 013]
07361>         [ Vmx=  1. 294: Dmx=  1. 047]
07362>         [ Di n=  1. 20: Dused=  1. 28]
07363> R0010: C00327-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07364>       ROUTE  PI PE              ->       1. 0  02: 335- 338           17. 90      1. 447  No_date    28: 14     41. 30  n/ a        . 000
07365> *     [ RDT=  1. 00]  out <-          1. 0  01: 338- 340           17. 90      1. 418  No_date    28: 15     41. 30  n/ a        . 000
07366>         [ L/ S/ n=   233. / . 100/ . 013]
07367>         [ Vmx=  1. 325: Dmx=   . 963]
07368>         [ Di n=  1. 35: Dused=  1. 35]
07369> R0010: C00328-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07370>       CONTI NUOUS  STANDHYD       1. 0  01: B4                7. 60       . 768  No_date    28: 02     41. 19  . 637       . 000
07371>         [ XI M=. 41: TI M=. 54]
07372>         [ LOSS= 2 : CN= 75. 0]
07373>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07374>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  388. : MNI =. 013: SCI =    . 0]
07375>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07376>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07377> R0010: C00329-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07378>       COMPUTE  DUALHYD       1. 0  01: B4                7. 60       . 768  No_date    28: 02     41. 19  n/ a        . 000
07379>         Major  System    /          1. 0  02: B4- MI          . 00       . 000  No_date    0: 00       . 00  n/ a        . 000
07380>         Mi nor  System    \          1. 0  03: B4- MN          7. 60       . 655  No_date    27: 58     41. 31  n/ a        . 000
07381>         [ MjSysSto=. 3770E+02,  Tot Or Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07382> R0010: C00330-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07383>       ADD  HYD                  +          1. 0  02: 338- 340           17. 90      1. 418  No_date    28: 15     41. 30  n/ a        . 000
07384>                                 +          1. 0  02: B4- MN            7. 60       . 655  No_date    27: 58     41. 31  n/ a        . 000
07385>                                 SUM=       1. 0  01: MHI 40           25. 50      2. 022  No_date    28: 12     41. 30  n/ a        . 000
07386> R0010: C00331-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07387>       SAVE  HYD                 1. 0  01: MHI 40           25. 50      2. 022  No_date    28: 12     41. 30  n/ a        . 000
07388>         fname : MH40. 0010
07389>         remark: Total  Flows  at  MH40
07390> R0010: C00332-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07391>       ROUTE  PI PE              ->       1. 0  02: MHI 40           25. 50      2. 022  No_date    28: 12     41. 30  n/ a        . 000
07392>         [ RDT=  1. 00]  out <-          1. 0  01: 340- 104           25. 50      1. 986  No_date    28: 12     41. 30  n/ a        . 000
07393>         [ L/ S/ n=   240. / . 150/ . 013]
07394>         [ Vmx=  1. 706: Dmx=   . 895]
07395>         [ Di n=  1. 65: Dused=  1. 65]
07396> R0010: C00333-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07397>       ADD  HYD                  +          1. 0  02: 340- 104           25. 50      1. 986  No_date    28: 12     41. 30  n/ a        . 000
07398>                                 +          1. 0  02: MHI 04          106. 93      8. 816  No_date    28: 05     41. 66  n/ a        . 000
07399>                                 SUM=       1. 0  01: MHI 04T          132. 43     10. 636  No_date    28: 05     41. 59  n/ a        . 000
07400> R0010: C00334-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07401>       ROUTE  PI PE              ->       1. 0  02: MHI 04T          132. 43     10. 636  No_date    28: 05     41. 59  n/ a        . 000
07402> *     [ RDT=  1. 00]  out <-          1. 0  01: 104- 105           132. 43     10. 007  No_date    28: 06     41. 59  n/ a        . 000
07403>         [ L/ S/ n=   380. / . 100/ . 013]
07404>         [ Vmx=  2. 071: Dmx=  1. 952]
07405>         [ HGTH=  2. 30: WDTH=  2. 63]
07406> R0010: C00335-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07407>       CONTI NUOUS  STANDHYD       1. 0  01: B5                2. 20       . 291  No_date    28: 00     45. 32  . 701       . 000
07408>         [ XI M=. 57: TI M=. 57]
07409>         [ LOSS= 2 : CN= 75. 0]
07410>         [ P e r v i o u s          a r e a :  I A p e r = 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
07411>         [ I m p e r v i o u s      a r e a :  I A i m p = 1. 57: SLPI =1. 00: LGI =  187. : MNI =. 013: SCI =    . 0]
07412>         [ I a RECI mp=   4. 00: I a RECPer=    4. 00]
07413>         [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
07414> R0010: C00336-------------DTmin-1 D: NHYD----------AREAha- QPEAK cms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
07415>       COMPUTE  DUALHYD       1. 0  01: B5                2. 20
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07481>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07482>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 148. : MNI=. 013: SCI=    .0]
07483>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07484>          [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
07485> R0010: C00349- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07486>      COMPUTE DUALHYD          1. 0 01: B6                3. 29        . 376 No_date    28: 00    41. 19    n/ a        . 000
07487>      Mi nor System    /       1. 0 02: B6- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07488>      Mi nor System    \       1. 0 03: B6- MN            3. 29        . 064 No_date    27: 36    41. 22    n/ a        . 000
07489>          [ MJ SysSt or=. 3813E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07490> R0010: C00350- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07491>      CONTI NUOUS STANDHYD     1. 0 01: EX- LAND          32. 50       3. 367 No_date    28: 02    41. 86    . 647       . 000
07492>          [ XI MP=. 50: TI MP=. 50]
07493>          [ LOSS= 2 : CN= 74. 0]
07494>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07495>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 465. : MNI=. 013: SCI=    .0]
07496>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07497>          [ SMI N= 36. 67: SMAX=244. 49: SK=  . 010]
07498> R0010: C00351- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07499>      COMPUTE DUALHYD          1. 0 01: EX- LAND          32. 50       3. 367 No_date    28: 02    41. 86    n/ a        . 000
07500>      Mi nor System    /       1. 0 02: EX- LAND- MI      . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07501>      Mi nor System    \       1. 0 03: EX- LAND- MN      32. 50       2. 275 No_date    27: 55    41. 99    n/ a        . 000
07502>          [ MJ SysSt or=. 5949E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07503> R0010: C00352- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07504>      ADD HYD                  1. 0 02: B7- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07505>                           +   1. 0 02: EX- LAND- MI      . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07506>                           +   1. 0 02: B5- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07507>                           +   1. 0 02: B6- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07508>                           +   1. 0 02: B6- MN            3. 29        . 064 No_date    27: 36    41. 22    n/ a        . 000
07509>                           +   1. 0 02: A8- MI- B6        . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07510>                       SUM=    1. 0 01: B6- BTEXMI        3. 29        . 064 No_date    27: 36    41. 22    n/ a        . 000
07511> R0010: C00353- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07512>      COMPUTE DUALHYD          1. 0 01: B6- BTEXMI        3. 29        . 064 No_date    27: 36    41. 22    n/ a        . 000
07513>      Mi nor System    /       1. 0 02: B6R- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07514>      Mi nor System    \       1. 0 03: B6R- MN           3. 29        . 064 No_date    27: 36    41. 22    n/ a        . 000
07515>          [ MJ SysSt or=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07516> R0010: C00354- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07517>      ROUTE PI PE              - >     1. 0 02: MH105- B6    106. 90      3. 008 No_date    28: 05    41. 72    n/ a        . 000
07518>          [ RDT= 1. 00]  out <-        1. 0 01: 105- 106A    106. 90      3. 006 No_date    28: 12    41. 72    n/ a        . 000
07519>          [ L/ S/ n=  208. /  . 100/ . 013]
07520>          [ Vmax= 1. 597: Dmax= 1. 249]
07521>          [ Di n= 1. 80: Used= 1. 80]
07522> R0010: C00355- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07523>      ADD HYD                  1. 0 02: 360- 106A         7. 19        . 628 No_date    28: 11    41. 31    n/ a        . 000
07524>                           +   1. 0 02: 105- 106A        106. 90      3. 006 No_date    28: 12    41. 72    n/ a        . 000
07525>                           +   1. 0 02: B6R- MN           3. 29        . 064 No_date    27: 36    41. 22    n/ a        . 000
07526>                           +   1. 0 02: B6R- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07527>                       SUM=    1. 0 01: MH106A           117. 38      3. 698 No_date    28: 11    41. 68    n/ a        . 000
07528> R0010: C00356- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07529>      SAVE HYD                 1. 0 01: MH106A           117. 38      3. 698 No_date    28: 11    41. 68    n/ a        . 000
07530>          f name : MH106A. 0010
07531>          r emar k: Total Flows at  MH106A
07532> R0010: C00357- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07533>      ROUTE PI PE              - >     1. 0 02: MH106A           117. 38      3. 698 No_date    28: 11    41. 68    n/ a        . 000
07534> *    [ RDT= 1. 00]  out <-        1. 0 01: 106A- 106         117. 38      3. 659 No_date    28: 06    41. 68    n/ a        . 000
07535>          [ L/ S/ n=  190. /  . 100/ . 013]
07536>          [ Vmax= 1. 635: Dmax= 1. 487]
07537>          [ Di n= 1. 80: Used= 1. 81]
07538> R0010: C00358- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07539>      CONTI NUOUS STANDHYD     1. 0 01: A9                2. 44        . 365 No_date    28: 00    51. 11    . 790       . 000
07540>          [ XI MP=. 71: TI MP=. 71]
07541>          [ LOSS= 2 : CN= 75. 0]
07542>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07543>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 262. : MNI=. 013: SCI=    .0]
07544>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07545>          [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
07546> R0010: C00359- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07547>      COMPUTE DUALHYD          1. 0 01: A9                2. 44        . 365 No_date    28: 00    51. 11    n/ a        . 000
07548>      Mi nor System    /       1. 0 02: A9- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07549>      Mi nor System    \       1. 0 03: A9- MN            2. 44        . 365 No_date    28: 00    51. 11    n/ a        . 000
07550> R0010: C00360- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07551>      ADD HYD                  1. 0 02: 106A- 106         117. 38      3. 659 No_date    28: 06    41. 68    n/ a        . 000
07552>                           +   1. 0 02: A9- MN            2. 44        . 365 No_date    28: 00    51. 11    n/ a        . 000
07553>                       SUM=    1. 0 01: MH106            119. 82      3. 992 No_date    28: 02    41. 87    n/ a        . 000
07554> R0010: C00361- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07555>      SAVE HYD                 1. 0 01: MH106            119. 82      3. 992 No_date    28: 02    41. 87    n/ a        . 000
07556>          f name : MH106. 0010
07557>          r emar k: Total Flows at  MH106
07558> R0010: C00362- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07559>      ROUTE PI PE              - >     1. 0 02: MH106            119. 82      3. 992 No_date    28: 02    41. 87    n/ a        . 000
07560> *    [ RDT= 1. 00]  out <-        1. 0 01: 106- 107          119. 82      3. 962 No_date    28: 03    41. 87    n/ a        . 000
07561>          [ L/ S/ n=  123. /  . 100/ . 013]
07562>          [ Vmax= 1. 666: Dmax= 1. 530]
07563>          [ Di n= 1. 80: Used= 1. 86]
07564> R0010: C00363- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07565>      CONTI NUOUS STANDHYD     1. 0 01: A10               4. 14        . 416 No_date    28: 01    38. 46    . 595       . 000
07566>          [ XI MP=. 35: TI MP=. 67]
07567>          [ LOSS= 2 : CN= 75. 0]
07568>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07569>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    .0]
07570>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07571>          [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
07572> R0010: C00364- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07573>      COMPUTE DUALHYD          1. 0 01: A10               4. 14        . 416 No_date    28: 01    38. 46    n/ a        . 000
07574>      Mi nor System    /       1. 0 02: A10- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07575>      Mi nor System    \       1. 0 03: A10- MN           4. 14        . 310 No_date    27: 55    38. 48    n/ a        . 000
07576>          [ MJ SysSt or=. 4172E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07577> R0010: C00365- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07578>      CONTI NUOUS STANDHYD     1. 0 01: A11              10. 61       1. 251 No_date    28: 01    45. 36    . 701       . 000
07579>          [ XI MP=. 53: TI MP=. 62]
07580>          [ LOSS= 2 : CN= 75. 0]
07581>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07582>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=    .0]
07583>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07584>          [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
07585> R0010: C00366- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07586>      COMPUTE DUALHYD          1. 0 01: A11              10. 61       1. 251 No_date    28: 01    45. 36    n/ a        . 000
07587>      Mi nor System    /       1. 0 02: A11- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07588>      Mi nor System    \       1. 0 03: A11- MN          10. 61        . 993 No_date    27: 56    45. 38    n/ a        . 000
07589>          [ MJ SysSt or=. 1016E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07590> R0010: C00367- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07591>      ADD HYD                  1. 0 02: 106- 107          119. 82      3. 962 No_date    28: 03    41. 87    n/ a        . 000
07592>                           +   1. 0 02: A10- MN           4. 14        . 310 No_date    27: 55    38. 48    n/ a        . 000
07593>                           +   1. 0 02: A11- MN          10. 61        . 993 No_date    27: 56    45. 38    n/ a        . 000
07594>                       SUM=    1. 0 01: MH107            134. 57      5. 265 No_date    28: 03    42. 04    n/ a        . 000
07595> R0010: C00368- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07596>      SAVE HYD                 1. 0 01: MH107            134. 57      5. 265 No_date    28: 03    42. 04    n/ a        . 000
07597>          f name : MH107. 0010
07598>          r emar k: Total Flows at  MH107
07599> R0010: C00369- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07600>      ROUTE PI PE              - >     1. 0 02: MH107            134. 57      5. 265 No_date    28: 03    42. 04    n/ a        . 000
07601> *    [ RDT= 1. 00]  out <-        1. 0 01: 107- 119          134. 57      5. 251 No_date    28: 05    42. 04    n/ a        . 000
07602>          [ L/ S/ n=  114. /  . 120/ . 013]
07603>          [ Vmax= 1. 912: Dmax= 1. 640]
07604>          [ Di n= 1. 80: Used= 2. 00]
07605> R0010: C00370- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07606>      ROUTE PI PE              - >     1. 0 02: 107- 119          134. 57      5. 251 No_date    28: 05    42. 04    n/ a        . 000
07607> *    [ RDT= 1. 00]  out <-        1. 0 01: 119- 108          134. 57      5. 248 No_date    28: 06    42. 04    n/ a        . 000
07608>          [ L/ S/ n=   66. /  . 120/ . 013]
07609>          [ Vmax= 1. 911: Dmax= 1. 639]
07610>          [ Di n= 1. 80: Used= 2. 00]
07611> R0010: C00371- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07612>      CONTI NUOUS STANDHYD     1. 0 01: A12              12. 29       1. 385 No_date    28: 01    41. 19    . 637       . 000
07613>          [ XI MP=. 41: TI MP=. 54]
07614>          [ LOSS= 2 : CN= 75. 0]
07615>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07616>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    .0]
07617>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07618>          [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
07619> R0010: C00372- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07620>      COMPUTE DUALHYD          1. 0 01: A12              12. 29       1. 385 No_date    28: 01    41. 19    n/ a        . 000
07621>      Mi nor System    /       1. 0 02: A12- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07622>      Mi nor System    \       1. 0 03: A12- MN          12. 29       1. 029 No_date    27: 54    41. 27    n/ a        . 000
07623>          [ MJ SysSt or=. 1401E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07624> R0010: C00373- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07625>      CONTI NUOUS STANDHYD     1. 0 01: A13               2. 59        . 368 No_date    28: 01    51. 11    . 790       . 000
07626>          [ XI MP=. 71: TI MP=. 71]
07627>          [ LOSS= 2 : CN= 75. 0]
07628>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07629>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=    .0]
07630>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07631>          [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
07632> R0010: C00374- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07633>      COMPUTE DUALHYD          1. 0 01: A13               2. 59        . 368 No_date    28: 01    51. 11    n/ a        . 000
07634>      Mi nor System    /       1. 0 02: A13- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07635>      Mi nor System    \       1. 0 03: A13- MN           2. 59        . 368 No_date    28: 01    51. 11    n/ a        . 000
07636> R0010: C00375- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07637>      CONTI NUOUS STANDHYD     1. 0 01: Pond- Bl ock      2. 94        . 309 No_date    28: 00    38. 90    . 601       . 000
07638>          [ XI MP=. 41: TI MP=. 41]
07639>          [ LOSS= 2 : CN= 75. 0]
07640>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07641>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    .0]
07642>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07643>          [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
07644> R0010: C00376- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07645>      ADD HYD                  1. 0 02: 119- 108          134. 57      5. 248 No_date    28: 06    42. 04    n/ a        . 000
07646>                           +   1. 0 02: A13- MN           2. 59        . 368 No_date    28: 01    51. 11    n/ a        . 000
07647>                           +   1. 0 02: A12- MN          12. 29       1. 029 No_date    27: 54    41. 27    n/ a        . 000
07648>                       SUM=    1. 0 01: MH108            149. 45      6. 598 No_date    28: 04    42. 14    n/ a        . 000
07649> R0010: C00377- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07650>      SAVE HYD                 1. 0 01: MH108            149. 45      6. 598 No_date    28: 04    42. 14    n/ a        . 000
07651>          f name : MH108. 0010
07652>          r emar k: Total Flows at  MH108
07653> R0010: C00378- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07654>      ROUTE PI PE              - >     1. 0 02: MH108            149. 45      6. 598 No_date    28: 04    42. 14    n/ a        . 000
07655> *    [ RDT= 1. 00]  out <-        1. 0 01: 108- 116          149. 45      6. 590 No_date    28: 05    42. 14    n/ a        . 000
07656>          [ L/ S/ n=   77. /  . 130/ . 013]
07657>          [ Vmax= 2. 085: Dmax= 1. 759]
07658>          [ Di n= 1. 80: Used= 2. 14]
07659> R0010: C00379- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07660>      ROUTE PI PE              - >     1. 0 02: 108- 116          149. 45      6. 590 No_date    28: 05    42. 14    n/ a        . 000
07661> *    [ RDT= 1. 00]  out <-        1. 0 01: 116- corrig       149. 45      6. 577 No_date    28: 06    42. 14    n/ a        . 000
07662>          [ L/ S/ n=   80. /  . 130/ . 013]
07663>          [ Vmax= 2. 084: Dmax= 1. 758]
07664>          [ Di n= 1. 80: Used= 2. 14]
07665> R0010: C00380- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07666>      ADD HYD                  1. 0 02: 116- corrig       149. 45      6. 577 No_date    28: 06    42. 14    n/ a        . 000
07667>                           +   1. 0 02: Pond- Bl ock      2. 94        . 309 No_date    28: 00    38. 90    n/ a        . 000
07668>                       SUM=    1. 0 01: Corrigan          152. 39      6. 779 No_date    28: 05    42. 08    n/ a        . 000
07669> R0010: C00381- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07670>      SAVE HYD                 1. 0 01: Corrigan          152. 39      6. 779 No_date    28: 05    42. 08    n/ a        . 000
07671>          f name : Corrigan. 0010
07672>          r emar k: HYD_COMMENT=[ " Total Flows at  Corrigan Pond]
07673> R0010: C00382- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07674>      ROUTE RESERVOIR  - >     1. 0 02: Corrigan          152. 39      6. 779 No_date    28: 05    42. 08    n/ a        . 000
07675>                           out <=     1. 0 01: Co- P        152. 39      6. 100 No_date    28: 15    42. 07    n/ a        . 000
07676>                       overflow <=    1. 0 03: Co- P- OVF    . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07677>          [ MJ StoUsed=. 1015E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07678> R0010: C00383- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07679>      ADD HYD                  1. 0 02: Co- P- OVF        . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07680>                           +   1. 0 02: Co- P            152. 39      6. 100 No_date    28: 15    42. 07    n/ a        . 000
07681>                           +   1. 0 02: N_TO           54837. 78     87. 112 No_date    36: 28    23. 00    n/ a        . 000
07682>                           +   1. 0 02: MH105- JR        28. 70       7. 335 No_date    28: 05    41. 72    n/ a        . 000
07683>                           +   1. 0 02: A8- MI- JR        . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07684>                           +   1. 0 02: A9- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07685>                           +   1. 0 02: A9- MN            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07686>                           +   1. 0 02: A11- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07687>                           +   1. 0 02: A12- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07688>                           +   1. 0 02: A13- MI           . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07689>                       SUM=    1. 0 01: corrig          55018. 86     87. 567 No_date    36: 27    23. 06    n/ a        . 000
07690> R0010: C00384- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07691>      SAVE HYD                 1. 0 01: corrig          55018. 86     87. 567 No_date    36: 27    23. 06    n/ a        . 000
07692>          f name : corrig. 0010
07693>          r emar k: Total Flows at  Corrigan Pond
07694> #*********************************************************************************
07695> #    Corrigan Pond 1
07696> #    - Rating curve obtained from Barrhaven South MSS modeling
07697> #    - Tributary Drainage Area = MSS Pond 1 = 145 ha
07698> #*********************************************************************************
07699> #
07700> # Hydrograph from Corrigan Drain routed to Jockvale Road
07701> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
07702> #
07703> R0010: C00385- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07704>      ROUTE CHANNEL    - >     1. 0 02: corrig          55018. 86     87. 567 No_date    36: 27    23. 06    n/ a        . 000
07705>          [ RDT= 1. 00]  out <-        1. 0 01: N_MI          55018. 86     87. 553 No_date    36: 29    23. 06    n/ a        . 000
07706>          [ L/ S/ n=  580. /  . 445/ . 045]
07707>          [ Vmax= 1. 805: Dmax= 1. 646]
07708> #*********************************************************************************
07709> #    Catchment MILLS
07710> #    - To SWM Facility north of the Jock
07711> #    - Primarily residential development
07712> #*********************************************************************************
07713> R0010: C00386- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07714>      CONTI NUOUS STANDHYD     1. 0 01: MILLS            175. 99      12. 212 No_date    28: 07    36. 76    . 568       . 000
07715>          [ XI MP=. 38: TI MP=. 38]
07716>          [ LOSS= 2 : CN= 74. 0]
07717>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07718>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=1118. : MNI=. 013: SCI=    .0]
07719>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07720>          [ SMI N= 36. 67: SMAX=244. 49: SK=  . 010]
07721> #*********************************************************************************
07722> #    Chapman Mills SWM Pond
07723> #    - Rating curve obtained from CCL hydraulic modeling
07724> #*********************************************************************************
07725> R0010: C00387- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07726>      ROUTE RESERVOIR  - >     1. 0 02: MILLS            175. 99      12. 212 No_date    28: 07    36. 76    n/ a        . 000
07727>                           out <=     1. 0 01: MILL_P        175. 99      4. 030 No_date    28: 43    36. 76    n/ a        . 000
07728>                       overflow <=    1. 0 03: MIL- OV        . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07729>          [ MJ StoUsed=. 2299E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07730> R0010: C00388- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07731>      ADD HYD                  1. 0 02: N_MI            55018. 86     87. 553 No_date    36: 29    23. 06    n/ a        . 000
07732>                           +   1. 0 02: MIL- OV            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07733>                           +   1. 0 02: MILL_P          175. 99      4. 030 No_date    28: 43    36. 76    n/ a        . 000
07734>                       SUM=    1. 0 01: SN_MI           55194. 85     88. 022 No_date    36: 28    23. 10    n/ a        . 000
07735> R0010: C00389- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07736>      SAVE HYD                 1. 0 01: SN_MI           55194. 85     88. 022 No_date    36: 28    23. 10    n/ a        . 000
07737>          f name : SN_MI. 0010
07738>          r emar k: Total Flows at  Jockvale Road
07739> #
07740> # Hydrograph from Jockvale Road routed to Heart's Desire
07741> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
07742> #
07743> R0010: C00390- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07744>      ROUTE CHANNEL    - >     1. 0 02: SN_MI           55194. 85     88. 022 No_date    36: 28    23. 10    n/ a        . 000
07745>          [ RDT= 1. 00]  out <-        1. 0 01: N_DE          55194. 85     87. 590 No_date    36: 50    23. 10    n/ a        . 000
07746>          [ L/ S/ n= 1962. /  . 223/ . 045]
07747>          [ Vmax= 1. 403: Dmax= 2. 091]
07748> #*********************************************************************************
07749> #    Catchment DESIRE
07750> #    - To Jock River (north of the Jock)
07751> #    - Rural-estate subdivision (Heart's Desire Community)
07752> #*********************************************************************************
07753> R0010: C00391- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07754>      CONTI NUOUS STANDHYD     1. 0 01: DESIRE            23. 78       1. 694 No_date    28: 03    32. 93    . 509       . 000
07755>          [ XI MP=. 25: TI MP=. 25]
07756>          [ LOSS= 2 : CN= 77. 0]
07757>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07758>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=    .0]
07759>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07760>          [ SMI N= 31. 15: SMAX=207. 66: SK=  . 010]
07761> #*********************************************************************************
07762> #    Catchment JOCKVA
07763> #    - To Jockvale SWM Facility
07764> #    - Residential development & golf course
07765> #    - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
07766> #      JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
07767> #*********************************************************************************
07768> R0010: C00392- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07769>      CONTI NUOUS STANDHYD     1. 0 01: JOCKVA           225. 13      17. 670 No_date    28: 08    41. 86    . 647       . 000
07770>          [ XI MP=. 50: TI MP=. 50]
07771>          [ LOSS= 2 : CN= 74. 0]
07772>          [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07773>          [Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=    .0]
07774>          [I aREC I mp=   4. 00: I aREC per=   4. 00]
07775>          [ SMI N= 36. 67: SMAX=244. 49: SK=  . 010]
07776> R0010: C00393- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07777>      ADD HYD                  1. 0 02: EX- LAND- MN      32. 50       2. 275 No_date    27: 55    41. 99    n/ a        . 000
07778>                           +   1. 0 02: JOCKVA           225. 13      17. 670 No_date    28: 08    41. 86    n/ a        . 000
07779>                           +   1. 0 02: B2- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07780>                           +   1. 0 02: B3- MI            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07781>                       SUM=    1. 0 01: JOCKVA- TO        257. 63      19. 945 No_date    28: 08    41. 88    n/ a        . 000
07782> R0010: C00394- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07783>      SAVE HYD                 1. 0 01: JOCKVA- TO        257. 63      19. 945 No_date    28: 08    41. 88    n/ a        . 000
07784>          f name : JOCKVA- TO. 0010
07785>          r emar k: Total Flows at  KB first pond
07786> #*********************************************************************************
07787> #    Jockvale SWM Facility
07788> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
07789> #*********************************************************************************
07790> R0010: C00395- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07791>      ROUTE RESERVOIR  - >     1. 0 02: JOCKVA- TO        257. 63      19. 945 No_date    28: 08    41. 88    n/ a        . 000
07792>                           out <=     1. 0 01: JOC_P         257. 63       6. 542 No_date    28: 42    41. 88    n/ a        . 000
07793>                       overflow <=    1. 0 03: JO- OVF        . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07794>          [ MJ StoUsed=. 4673E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=      0,  Tot Dur Or f=      0. hr s]
07795> R0010: C00396- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07796>      ADD HYD                  1. 0 02: N_DE            55194. 85     87. 590 No_date    36: 50    23. 10    n/ a        . 000
07797>                           +   1. 0 02: DESIRE           23. 78       1. 694 No_date    28: 03    32. 93    n/ a        . 000
07798>                           +   1. 0 02: JO- OVF            . 00        . 000 No_date    0: 00      . 00    n/ a        . 000
07799>                           +   1. 0 02: JOCK_P           257. 63       6. 542 No_date    28: 42    41. 88    n/ a        . 000
07800>                       SUM=    1. 0 01: SN_DE           55476. 26     88. 294 No_date    36: 48    23. 19    n/ a        . 000
07801> R0010: C00397- ---------- DTmi n I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
07802>      SAVE HYD                 1. 0 01: SN_DE           55476. 26     88. 294 No_date    36: 48    23. 19    n/ a        . 000
07803>          f name : SN_DE. 0010
07804>          r emar k: Total Flows at  Heart's Desire
07805> #
07806> # Hydrograph from Heart's Desire routed to Rideau
```

```
# License #   :  2549237
#*****************************************************************************
# CALIBRATION OF SUMMER MODEL PARAMETERS
# USING CONTINUOUS SIMULATIONS
# Rainfall data from JFSA raingauge installed at site + other gauges by the City
# Use data collected from May 1st to July 14, 2003
# 2020-11-30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0.1 instead of 0.0001)
# 2020-12-01 correct pond curve values
# 2020-12-01 change WCLAR, BRAZ, XIMP to 0.55, SLPI=0.5(%(impervious slope), and LGI up to 700m
# 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"], NHYDin=["SN_TO"]) from 0.033 %(as per S
# 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
#-------------------------------------------------------------------------------
R0025: C00002-------------------------------------------------------------------
       READ STORM
         Filename = storm001
         Comment  = Pluie SCS de 24 hres 1:25 ans pour Ottawa CDA
         [SDI=10.00: SDUR=  24.00: PTOT=  74.39]
R0025: C00003-------------------------------------------------------------------
       MODIFY STORM
         [REACT=  1.00: TSHIFT= 960.00 min]
         [SDI=10.00: SDUR=  24.00: PTOT=  74.39]
R0025: C00004-------------------------------------------------------------------
       DEFAULT VALUES
         Filename = T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO\SMR-Model\updated3\CitiGate.DEF
         [CASEdv   = 1 (read and print data)
         FileTitle= File comment: [Based onvarious calibration exercises in Onta
                    THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
       Horton's infiltration equation parameters:
         [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=  .00 mm]
       Parameters for PERVIOUS surfaces in STANDHYD:
         [IAper=   4.67 mm] [LGP=50.00 m] [MNP= .250]
       Parameters for IMPERVIOUS surfaces in STANDHYD:
         [IAimp=   1.57 mm] [CLI= 1.50]   [MNI= .013]
       Parameters used in NASHYD:
         [Ia=      4.67 mm] [N= 3.00]
       Average monthly Pan Evaporation data in     (mm)
    JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
       Average monthly Potential Evapotranspiration in     (mm)
    JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
R0025: C00005-------------------------------------------------------------------
       COMPUTE API
         [APIini= 50.00: APIkdy= .8500: APIkdt= .9989]
         [APImax=106.76: APIavg= 65.09: APImin= 44.87]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.32
R0025: C00006-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:JR_HW        3680.00    15.500 No_date   36:57   25.80 .347      .000
       [CN= 64.0: N= 3.00: Tp= 7.13]
       [IaREC= 4.00: SMN= 57.05: SMX=380.32: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.32
R0025: C00007-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_13         971.00     5.778 No_date   32:34   24.02 .323      .000
       [CN= 61.0: N= 3.00: Tp= 3.76]
       [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.80
R0025: C00008-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:JR_GWM       3074.00     7.521 No_date   39:59   20.65 .278      .000
       [CN= 55.0: N= 3.00: Tp=11.33]
       [IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
       [InterEventTime=  12.00]
R0025: C00009-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:JR_ASH       1781.00    14.166 No_date   32:40   31.50 .423      .000
       [CN= 72.0: N= 3.00: Tp= 3.91]
       [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
       [InterEventTime=  12.00]
R0025: C00010-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_11         500.00     7.521 No_date   29:22   27.01 .363      .000
       [CN= 66.0: N= 3.00: Tp= 1.24]
       [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.80
R0025: C00011-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:NN_CK        1917.00    10.351 No_date   34:27   27.01 .363      .000
       [CN= 66.0: N= 3.00: Tp= 5.29]
       [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.52
R0025: C00012-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_10        5666.00    27.457 No_date   37:54   31.50 .423      .000
       [CN= 72.0: N= 3.00: Tp= 8.00]
       [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.75
R0025: C00013-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:KG_CK        8376.00    26.276 No_date   39:59   27.01 .363      .000
       [CN= 66.0: N= 3.00: Tp=11.66]
       [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.68
R0025: C00014-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_9         1132.00    11.752 No_date   30:54   30.18 .406      .000
       [CN= 70.0: N= 3.00: Tp= 2.51]
       [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.82
R0025: C00015-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:NC_CK        4464.00    13.075 No_date   39:59   24.61 .331      .000
       [CN= 62.0: N= 3.00: Tp=11.32]
       [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.80
R0025: C00016-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_8         131.00     2.266 No_date   28:57   25.20 .339      .000
       [CN= 63.0: N= 3.00: Tp=  .90]
       [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.65
R0025: C00017-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:HB_DR        3854.00    15.333 No_date   38:34   27.01 .363      .000
       [CN= 66.0: N= 3.00: Tp= 8.42]
       [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.82
R0025: C00018-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_7         3197.00    11.663 No_date   36:24   21.75 .292      .000
       [CN= 57.0: N= 3.00: Tp= 6.65]
       [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.75
R0025: C00019-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_6         165.00     1.076 No_date   33:03   27.63 .371      .000
       [CN= 67.0: N= 3.00: Tp= 4.18]
       [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.67
R0025: C00020-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:VG_DR        1332.00     7.882 No_date   35:14   31.50 .423      .000
       [CN= 72.0: N= 3.00: Tp= 5.95]
       [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
       [InterEventTime=  12.00]
R0025: C00021-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_5         224.00     6.882 No_date   28:45   35.66 .479      .000
       [CN= 77.0: N= 3.00: Tp=  .75]
       [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.20
R0025: C00022-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:FL_CK        4945.00    37.664 No_date   33:18   32.85 .442      .000
       [CN= 74.0: N= 3.00: Tp= 4.45]
       [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
       [InterEventTime=  12.00]
R0025: C00023-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_5A2         20.00      .798 No_date   28:35   39.36 .529      .000
       [CN= 81.0: N= 3.00: Tp=  .62]
       [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
       [InterEventTime=  12.00]
#
# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
# of 1.61
R0025: C00024-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_5A1        1412.00     7.480 No_date   37:50   34.24 .460      .000
       [CN= 75.0: N= 3.00: Tp= 8.00]
       [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
       [InterEventTime=  12.00]
R0025: C00025-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_4         585.00    10.942 No_date   29:56   39.36 .529      .000
       [CN= 81.0: N= 3.00: Tp= 1.75]
       [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
       [InterEventTime=  12.00]
R0025: C00026-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:LM_CK        1021.00    14.476 No_date   30:46   38.60 .519      .000
       [CN= 80.0: N= 3.00: Tp= 2.46]
       [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
       [InterEventTime=  12.00]
R0025: C00027-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SW_2         177.00     5.438 No_date   28:45   35.66 .479      .000
       [CN= 77.0: N= 3.00: Tp=  .75]
       [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
       [InterEventTime=  12.00]
R0025: C00028-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:SM_DR        1122.00    13.229 No_date   31:45   39.36 .529      .000
       [CN= 81.0: N= 3.00: Tp= 3.25]
       [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
       [InterEventTime=  12.00]
R0025: C00029-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     CONTINUOUS NASHYD       1.0 01:MO_DR        2737.00    29.508 No_date   31:30   34.94 .470      .000
       [CN= 76.0: N= 3.00: Tp= 3.03]
       [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
       [InterEventTime=  12.00]
#
# Routing hydrographs
#
# Starting with the addition of Jock River Headwater and Subwatershed 13
#
R0025: C00030-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:JR_HW        3680.00    15.500 No_date   36:56   25.80 n/a       .000
                        +    1.0 02:SW_13         971.00     5.778 No_date   32:34   24.02 n/a       .000
                      SUM:   1.0 01:S_N13        4651.00    19.777 No_date   35:26   25.42 n/a       .000
#
# Sum of hydrographs from Node 13 routed to Node 13A
# (Approximated cross-section - see cross-section 258)
# Use n=0.04 for summer conditions and n=0.025 for spring conditions
#
R0025: C00031-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE CHANNEL       ->    1.0 02:S_N13        4651.00    19.777 No_date   35:26   25.42 n/a       .000
   [RDT= 1.00]  out <-         1.0 01:N13A         4651.00    15.935 No_date   39:17   25.42 n/a       .000
       [L/S/n= 9074./ .022/ .040]
       [Vmax=  .548: Dmax= 3.659]
#
# Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
#
R0025: C00032-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:N13A         4651.00    15.935 No_date   39:17   25.42 n/a       .000
                        +    1.0 02:JR_GWM       3074.00     7.521 No_date   39:59   20.65 n/a       .000
                      SUM:   1.0 01:SN13A        7725.00    23.402 No_date   39:59   23.52 n/a       .000
#
# Insertion of a reservoir to simulate the effects of the Goodwood Marsh
#
R0025: C00033-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE RESERVOIR     ->    1.0 02:SN13A        7725.00    23.402 No_date   39:59   23.52 n/a       .000
                        out <=  1.0 01:RES_GM       7725.00     3.678 No_date   60:27   23.52 n/a       .000
       [MuStoIked=.1192E+03  m3]
#
R0025: C00034-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     SAVE HYD                1.0 01:RES_GM       7725.00     3.678 No_date   60:27   23.52 n/a       .000
         fname : H_RESGM
         remark: Outflow from Res GM
#
# Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
# (Approximated cross-section - see cross-section 258)
# Use n=0.04 for summer conditions and n=0.025 for spring conditions
#
R0025: C00035-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE CHANNEL       ->    1.0 02:RES_GM       7725.00     3.678 No_date   60:27   23.52 n/a       .000
   [RDT= 1.00]  out <-         1.0 01:N12          7725.00     3.675 No_date   63:05   23.52 n/a       .000
       [L/S/n= 5926./ .076/ .040]
       [Vmax=  .552: Dmax= 1.524]
#
# Addition of Subwatershed Jock River at Ashton to Node 12
#
R0025: C00036-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:N12          7725.00     3.675 No_date   63:05   23.52 n/a       .000
                        +    1.0 02:JR_ASH       1781.00    14.166 No_date   32:40   31.50 n/a       .000
                      SUM:   1.0 01:S_N12        9506.00    16.182 No_date   32:43   25.02 n/a       .000
#
R0025: C00037-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     SAVE HYD                1.0 01:S_N12        9506.00    16.182 No_date   32:43   25.02 n/a       .000
         fname : H_SN12
         remark: flow at S_N12 near Ashton
#
# Sum of hydrographs from Node 12 routed to Node 11
# (Approximated cross-section - see cross-section 258)
# Use n=0.04 for summer conditions and n=0.025 for spring conditions
#
# Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
#
R0025: C00038-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE CHANNEL       ->    1.0 02:S_N12        9506.00    16.182 No_date   32:43   25.02 n/a       .000
   [RDT= 1.00]  out <-         1.0 01:Dum11        9506.00    16.007 No_date   33:02   25.02 n/a       .000
       [L/S/n=  972./ .054/ .040]
       [Vmax=  .721: Dmax= 2.847]
#
# Addition of Subwatershed 11 and No Name Creek to Node 11
#
R0025: C00039-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:Dum11        9506.00    16.007 No_date   33:02   25.02 n/a       .000
                        +    1.0 02:SW_11         500.00     7.521 No_date   29:22   27.01 n/a       .000
                        +    1.0 02:NN_CK        1917.00    10.351 No_date   34:27   27.01 n/a       .000
                      SUM:   1.0 01:S_N11        11923.00    27.908 No_date   33:04   25.42 n/a       .000
#
# Sum of hydrographs from Node 11 routed to Node 10
# Section 1
#
R0025: C00040-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE CHANNEL       ->    1.0 02:S_N11        11923.00    27.908 No_date   33:04   25.42 n/a       .000
   [RDT= 1.00]  out <-         1.0 01:N10          11923.00    18.039 No_date   40:01   25.42 n/a       .000
       [L/S/n=14028./ .157/ .040]
       [Vmax=  .464: Dmax= 1.329]
#
# Addition of Subwatershed 10 to Node 10
#
R0025: C00041-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:N10          11923.00    18.039 No_date   40:01   25.42 n/a       .000
                        +    1.0 02:SW_10         5666.00    27.457 No_date   37:54   31.50 n/a       .000
                      SUM:   1.0 01:S_N10        17589.00    45.026 No_date   38:35   27.38 n/a       .000
#
R0025: C00042-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     SAVE HYD                1.0 01:S_N10        17589.00    45.026 No_date   38:35   27.38 n/a       .000
         fname : H_SN10
         remark: flow at S_N10:  N10 + SW_10
# Addition of Kings Creek to S_N10
#
R0025: C00043-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:S_N10        17589.00    45.026 No_date   38:35   27.38 n/a       .000
                        +    1.0 02:KG_CK        8376.00    26.276 No_date   39:59   27.01 n/a       .000
                      SUM:   1.0 01:S_N10A       25965.00    70.812 No_date   39:59   27.26 n/a       .000
#
# Sum of hydrographs from Node 10 routed to Node 9
# Section 2
#
R0025: C00044-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE CHANNEL       ->    1.0 02:S_N10A       25965.00    70.812 No_date   39:59   27.26 n/a       .000
   [RDT= 1.00]  out <-         1.0 01:N9           25965.00    69.032 No_date   39:59   27.26 n/a       .000
       [L/S/n= 3982./ .075/ .040]
       [Vmax=  .718: Dmax= 1.889]
#
# Addition of Subwatershed 9 and Nichols Creek to Node 9
#
R0025: C00045-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:N9           25965.00    69.032 No_date   39:59   27.26 n/a       .000
                        +    1.0 02:SW_9          1132.00    11.752 No_date   30:54   30.18 n/a       .000
                        +    1.0 02:NC_CK         4464.00    13.075 No_date   39:59   24.61 n/a       .000
                      SUM:   1.0 01:S_N9         31561.00    84.684 No_date   39:59   26.99 n/a       .000
#
# Sum of hydrographs from Node 9 routed to Node 8
# Section 3
#
R0025: C00046-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE CHANNEL       ->    1.0 02:S_N9         31561.00    84.684 No_date   39:59   26.99 n/a       .000
   [RDT= 1.00]  out <-         1.0 01:N8           31561.00    79.245 No_date   39:59   26.99 n/a       .000
       [L/S/n= 2269./ .088/ .045]
       [Vmax=  .363: Dmax= 1.743]
#
# Addition of Subwatershed 8 and Hobb's Drain to Node 8
#
R0025: C00047-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:N8           31561.00    79.245 No_date   39:59   26.99 n/a       .000
                        +    1.0 02:SW_8          131.00     2.266 No_date   28:57   25.20 n/a       .000
                        +    1.0 02:HB_DR        3854.00    15.333 No_date   38:34   27.01 n/a       .000
                      SUM:   1.0 01:S_N8         35546.00    94.597 No_date   39:59   26.99 n/a       .000
#
# Sum of hydrographs from Node 8 routed to Node 7
# Section 4
#
R0025: C00048-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ROUTE CHANNEL       ->    1.0 02:S_N8         35546.00    94.597 No_date   39:59   26.99 n/a       .000
   [RDT= 1.00]  out <-         1.0 01:N7           35546.00    80.337 No_date   45:08   26.98 n/a       .000
       [L/S/n= 3750./ .053/ .070]
       [Vmax=  .226: Dmax= 2.161]
#
# Addition of Subwatershed 7 to Node 7
#
R0025: C00049-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     ADD HYD                 1.0 02:N7           35546.00    80.337 No_date   45:08   26.98 n/a       .000
                        +    1.0 02:SW_7          3197.00    11.663 No_date   36:24   21.75 n/a       .000
                      SUM:   1.0 01:S_N7         38743.00    86.331 No_date   44:08   26.55 n/a       .000
R0025: C00050-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
     SAVE HYD                1.0 01:S_N7         38743.00    86.331 No_date   44:08   26.55 n/a       .000
         fname : H_SN7
         remark: flow at S_N7:  N7 + SW_7
# Insertion of a reservoir to simulate the effects of the Richmond Fen.
# Storage area and volumes were estimated from available topo maps.
# Release rate from fen was assumed to be controlled by the downstream
# river cross-section for summer conditions.  It is was assumed that for up to
# 0.75 m of water, the main channel of the river provided the storage.  Above
# this depth, the wetland starts to signigicantly store water.
#
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08229> R0025: C00051-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08230>       ROUTE RESERVOIR ->      1. 0 02: S_N7        38743. 00    86. 331 No_date    44: 08    26. 55   n/ a      . 000
08231>                       out <=  1. 0 01: RES_RF      38743. 00    42. 032 No_date    60: 05    26. 55   n/ a      . 000
08232>     [ MuSt oRed= . 3671E+03   m3]
08233> R0025: C00052-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08234>       SAVE HYD                1. 0 01: RES_RF      38743. 00    42. 032 No_date    60: 05    26. 55   n/ a      . 000
08235>         f name : H_ResRF
08236>         remark: outflow of Richmond Fen
08237> #
08238> # Sum of hydrographs from Node 7 routed to Node 6
08239> # Sect ion 5
08240> #
08241> R0025: C00053-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08242>       ROUTE CHANNEL           ->      1. 0 02: RES_RF      38743. 00    42. 032 No_date    60: 05    26. 55   n/ a      . 000
08243>         [ RDT= 1. 00] out <-          1. 0 01: N6          38743. 00    41. 826 No_date    61: 20    26. 55   n/ a      . 000
08244>         [ L/ S/ n= 3056. / . 082/ . 025]
08245>         [ Vmax= . 514: Dmax= 1. 120]
08246> #
08247> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
08248> #
08249> R0025: C00054-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08250>       ADD HYD                 1. 0 02: N6          38743. 00    41. 826 No_date    61: 26    26. 55   n/ a      . 000
08251>                       +       1. 0 02: SW_6        165. 00      1. 076 No_date    33: 03    27. 63   n/ a      . 000
08252>                       +       1. 0 02: VG_DR       1332. 00     7. 882 No_date    35: 14    31. 50   n/ a      . 000
08253>                       SUM=    1. 0 01: S_N6        40240. 01    41. 832 No_date    61: 20    26. 72   n/ a      . 000
08254> #
08255> # Sum of hydrographs from Node 6 routed to Node 5
08256> # Sect ion 6
08257> #
08258> R0025: C00055-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08259>       ROUTE CHANNEL           ->      1. 0 02: S_N6        40240. 01    41. 832 No_date    61: 20    26. 72   n/ a      . 000
08260>         [ RDT= 1. 00] out <-          1. 0 01: N5          40240. 01    41. 717 No_date    62: 14    26. 72   n/ a      . 000
08261>         [ L/ S/ n= 1852. / . 054/ . 035]
08262>         [ Vmax= . 444: Dmax= 1. 222]
08263> #
08264> # Addition of Subwatershed 5 and Flowing Creek to Node 5
08265> #
08266> R0025: C00056-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08267>       ADD HYD                 1. 0 02: N5          40240. 01    41. 717 No_date    62: 14    26. 72   n/ a      . 000
08268>                       +       1. 0 02: SW_5        224. 00      6. 882 No_date    28: 45    35. 66   n/ a      . 000
08269>                       +       1. 0 02: FL_CK       4945. 00     37. 664 No_date    33: 18    32. 85   n/ a      . 000
08270>                       SUM=    1. 0 01: S_N5        45409. 01    62. 634 No_date    34: 27    27. 43   n/ a      . 000
08271> #
08272> # Sum of hydrographs from Node 5 routed to Node 5A
08273> # Sect ion 7
08274> #
08275> R0025: C00057-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08276>       ROUTE CHANNEL           ->      1. 0 02: S_N5        45409. 01    62. 634 No_date    34: 27    27. 43   n/ a      . 000
08277>         [ RDT= 1. 00] out <-          1. 0 01: N5A         45409. 01    62. 487 No_date    34: 43    27. 43   n/ a      . 000
08278>         [ L/ S/ n= . 556. / . 090/ . 040]
08279>         [ Vmax= . 511: Dmax= 1. 222]
08280> #
08281> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
08282> #
08283> R0025: C00058-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08284>       ADD HYD                 1. 0 02: N5A         45409. 01    62. 487 No_date    34: 43    27. 43   n/ a      . 000
08285>                       +       1. 0 02: SW_5A2      20. 00       . 798 No_date    28: 35    39. 36   n/ a      . 000
08286>                       +       1. 0 02: SW_5A1      1412. 00     7. 480 No_date    37: 50    34. 24   n/ a      . 000
08287>                       SUM=    1. 0 01: S_N5A       46841. 01    69. 334 No_date    35: 01    27. 64   n/ a      . 000
08288> #
08289> # Sum of hydrographs from Node 5A routed to Node 4
08290> # Sect ion 8
08291> #
08292> R0025: C00059-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08293>       ROUTE CHANNEL           ->      1. 0 02: S_N5A       46841. 01    69. 334 No_date    35: 01    27. 64   n/ a      . 000
08294>         [ RDT= 1. 00] out <-          1. 0 01: N4          46841. 01    66. 496 No_date    36: 27    27. 64   n/ a      . 000
08295>         [ L/ S/ n= 4630. / . 043/ . 035]
08296>         [ Vmax= . 840: Dmax= 3. 530]
08297> #
08298> # Addition of Subwatershed 4 and Leamy Creek to Node 4
08299> #
08300> R0025: C00060-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08301>       ADD HYD                 1. 0 02: N4          46841. 01    66. 496 No_date    36: 27    27. 64   n/ a      . 000
08302>                       +       1. 0 02: SW_4        585. 00      10. 942 No_date    29: 56    39. 36   n/ a      . 000
08303>                       +       1. 0 02: LM_CK       1021. 00     14. 476 No_date    30: 46    38. 60   n/ a      . 000
08304>                       SUM=    1. 0 01: S_N4        48447. 00    73. 819 No_date    35: 41    28. 02   n/ a      . 000
08305> R0025: C00061-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08306>       SAVE HYD                1. 0 01: S_N4        48447. 00    73. 819 No_date    35: 41    28. 02   n/ a      . 000
08307>         f name : S_N4. 0025
08308>         remark: flow at S_N4
08309> #
08310> # Sum of hydrographs from Node 4 routed to Node 2
08311> # Sect ion 9
08312> #
08313> R0025: C00062-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08314>       ROUTE CHANNEL           ->      1. 0 02: S_N4        48447. 00    73. 819 No_date    35: 41    28. 02   n/ a      . 000
08315>         [ RDT= 1. 00] out <-          1. 0 01: N2          48447. 00    73. 485 No_date    35: 42    28. 02   n/ a      . 000
08316>         [ L/ S/ n= 1667. / . 060/ . 040]
08317>         [ Vmax= . 874: Dmax= 3. 570]
08318> #
08319> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
08320> #
08321> R0025: C00063-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08322>       ADD HYD                 1. 0 02: N2          48447. 00    73. 485 No_date    35: 42    28. 02   n/ a      . 000
08323>                       +       1. 0 02: SW_2        177. 00      5. 438 No_date    28: 45    35. 66   n/ a      . 000
08324>                       +       1. 0 02: SM_DR       1122. 00     13. 229 No_date    31: 45    39. 36   n/ a      . 000
08325>                       +       1. 0 02: MD_DR       2737. 00     29. 508 No_date    31: 30    34. 94   n/ a      . 000
08326>                       SUM=    1. 0 01: S_N2        52483. 00    106. 109 No_date    33: 07    28. 64   n/ a      . 000
08327> R0025: C00064-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08328>       SAVE HYD                1. 0 01: S_N2        52483. 00    106. 109 No_date    33: 07    28. 64   n/ a      . 000
08329>         f name : H_SN2
08330>         remark: flow at S_N2 Jock River Gauge at Moodie Dr.
08331> #
08332> # Sum of hydrographs from Node 2 routed to Node 1
08333> # Sect ion 10
08334> #
08335> ********************************************************************************
08336> #
08337> # Hydrograph from Node 2 routed to Node 416
08338> # Channel X-Sect ion obtained from RVCA Hydraulic Model - Station 9025
08339> #
08340> R0025: C00065-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08341>       ROUTE CHANNEL           ->      1. 0 02: S_N2        52483. 00    106. 109 No_date    33: 07    28. 64   n/ a      . 000
08342>         [ RDT= 1. 00] out <-          1. 0 01: N_416       52483. 00    103. 234 No_date    34: 03    28. 64   n/ a      . 000
08343>         [ L/ S/ n= 2327. / . 050/ . 055]
08344>         [ Vmax= . 754: Dmax= 3. 105]
08345> #********************************************************************************
08346> #     Catchment SW1a
08347> #     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
08348> #     - Undeveloped agricultural land
08349> #********************************************************************************
08350> R0025: C00066-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08351>       CONTINUOUS NASHYD       1. 0 01: SW_1a       536. 42      5. 154 No_date    31: 16    30. 13   . 405    . 000
08352>         [ CN= 72. 0: N= 3. 00: Tp= 2. 79]
08353>         [ IaREC= 4. 00: SM N= 39. 75: SMX= 264. 99: SK= . 010]
08354>         [ InterEventTime= 12. 00]
08355> R0025: C00067-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08356>       CONTINUOUS NASHYD       1. 0 01: S: 1- Okeefe        44. 93       1. 029 No_date    29: 07    34. 14   . 459    . 000
08357>         [ CN= 77. 0: N= 3. 00: Tp= 1. 05]
08358>         [ IaREC= 4. 00: SM N= 31. 15: SMX= 207. 66: SK= . 010]
08359>         [ InterEventTime= 12. 00]
08360> R0025: C00068-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08361>       ADD HYD                 1. 0 02: N_416       52483. 00    103. 234 No_date    34: 03    28. 64   n/ a      . 000
08362>                       +       1. 0 02: SW_1a       536. 42      5. 154 No_date    31: 16    30. 13   . 405    . 000
08363>                       +       1. 0 02: S: 1- Okeefe        44. 93       1. 029 No_date    29: 07    34. 14   n/ a      . 000
08364>                       SUM=    1. 0 01: SN_416      53064. 36    107. 224 No_date    33: 26    28. 66   n/ a      . 000
08365> R0025: C00069-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08366>       SAVE HYD                1. 0 01: SN_416      53064. 36    107. 224 No_date    33: 26    28. 66   n/ a      . 000
08367>         f name : SN_416. 0025
08368>         remark: Total Flows at Highway 416
08369> #
08370> # Hydrograph from Node 416 routed to Node at Okeefe drain
08371> # Channel X-Sect ion obtained from RVCA Hydraulic Model - Station 7245
08372> #
08373> R0025: C00070-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08374>       ROUTE CHANNEL           ->      1. 0 02: SN_416      53064. 36    107. 224 No_date    33: 26    28. 66   n/ a      . 000
08375>         [ RDT= 1. 00] out <-          1. 0 01: N_OK        53064. 36    107. 100 No_date    33: 50    28. 66   n/ a      . 000
08376>         [ L/ S/ n= . 497. / . 302/ . 055]
08377>         [ Vmax= 1. 568: Dmax= 2. 811]
08378> #********************************************************************************
08379> #     Catchment OKEEFE
08380> #     - To O'Keefe drain (north of the Jock)
08381> #     - Developed with assumed 43% imp.
08382> #     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
08383> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMM5O model (Citi-Gate 2014).
08384> #********************************************************************************
08385> R0025: C00071-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08386>       CONTINUOUS NASHYD       1. 0 01: O. 1        63. 72       . 937 No_date    28: 58    22. 21   . 299    . 000
08387>         [ CN= 61. 0: N= 3. 00: Tp= . 90]
08388>         [ IaREC= 4. 00: SM N= 64. 50: SMX= 430. 01: SK= . 010]
08389>         [ InterEventTime= 12. 00]
08390> R0025: C00072-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08391>       ROUTE CHANNEL           ->      1. 0 02: O. 1        63. 72       . 937 No_date    28: 58    22. 21   n/ a      . 000
08392>         [ RDT= 1. 00] out <-          1. 0 01: O. 1R       63. 72       . 877 No_date    29: 15    22. 21   n/ a      . 000
08393>         [ L/ S/ n= 960. / . 630/ . 043]
08394>         [ Vmax= . 829: Dmax= . 398]
08395> R0025: C00073-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08396>       CONTINUOUS NASHYD       1. 0 01: O. 2        28. 61       . 330 No_date    29: 13    20. 55   . 276    . 000
08397>         [ CN= 57. 0: N= 3. 00: Tp= 1. 10]
08398>         [ IaREC= 4. 00: SM N= 76. 32: SMX= 508. 81: SK= . 010]
08399>         [ InterEventTime= 12. 00]
08400> R0025: C00074-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08401>       CONTINUOUS NASHYD       1. 0 01: O. 4        46. 94       . 426 No_date    29: 00    15. 62   . 210    . 000
08402>         [ CN= 49. 0: N= 3. 00: Tp= . 90]
08403>         [ IaREC= 4. 00: SM N= 104. 59: SMX= 697. 25: SK= . 010]
08404>         [ InterEventTime= 12. 00]
08405> R0025: C00075-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08406>       ADD HYD                 1. 0 02: O. 1R       63. 72       . 877 No_date    29: 15    22. 21   n/ a      . 000
08407>                       +       1. 0 02: O. 2        28. 61       . 330 No_date    29: 13    20. 55   n/ a      . 000
08408>                       +       1. 0 02: O. 4        46. 94       . 426 No_date    29: 00    15. 62   n/ a      . 000
08409>                       SUM=    1. 0 01: OKF- N      139. 27      1. 623 No_date    29: 11    19. 65   n/ a      . 000
08410> R0025: C00076-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08411>       ROUTE CHANNEL           ->      1. 0 02: OKF- N      139. 27      1. 623 No_date    29: 11    19. 65   n/ a      . 000
08412>         [ RDT= 1. 00] out <-          1. 0 01: OKF- NR     139. 27      1. 620 No_date    29: 14    19. 65   n/ a      . 000
08413>         [ L/ S/ n= . 210. / . 810/ . 043]
08414>         [ Vmax= . 998: Dmax= . 685]
08415> R0025: C00077-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08416>       CONTINUOUS NASHYD       1. 0 01: O- 6        16. 46       . 143 No_date    28: 45    13. 49   . 181    . 000
08417>         [ CN= 43. 0: N= 3. 00: Tp= . 70]
08418>         [ IaREC= 4. 00: SM N= 134. 47: SMX= 896. 47: SK= . 010]
08419>         [ InterEventTime= 12. 00]
08420> R0025: C00078-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08421>       CONTINUOUS STANDHYD     1. 0 01: O- 3        39. 67       1. 013 No_date    28: 23    24. 45   . 329    . 000
08422>         [ XI MP= . 15: TI MP= . 30]
08423>         [ LOSS= 2 : CN= 50. 0]
08424>         [ Pervious       area: I Aper= 4. 67: SLPP= . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
08425>         [ Impervious     area: I Aimp= 1. 57: SLPI= . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
08426>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08427>         [ SM N= 99. 77: SMX= 665. 12: SK= . 010]
08428> R0025: C00079-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08429>       CONTINUOUS STANDHYD     1. 0 01: O- 5        60. 63       2. 500 No_date    28: 10    28. 05   . 377    . 000
08430>         [ XI MP= . 13: TI MP= . 26]
08431>         [ LOSS= 2 : CN= 61. 0]
08432>         [ Pervious       area: I Aper= 4. 67: SLPP= 1. 38: LGP= 550. : MNP= . 035: SCP=    . 0]
08433>         [ Impervious     area: I Aimp= 1. 57: SLPI= 1. 38: LGI= 1450. : MNI= . 013: SCI=    . 0]
08434>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08435>         [ SM N= 64. 50: SMX= 430. 01: SK= . 010]
08436> R0025: C00080-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08437>       ADD HYD                 1. 0 02: OKF- NR     139. 27      1. 620 No_date    29: 14    19. 65   n/ a      . 000
08438>                       +       1. 0 02: O- 3        39. 67       1. 013 No_date    28: 23    24. 45   n/ a      . 000
08439>                       +       1. 0 02: O- 5        60. 63       2. 500 No_date    28: 10    28. 05   n/ a      . 000
08440>                       +       1. 0 02: O- 6        16. 46       . 143 No_date    28: 45    13. 49   n/ a      . 000
08441>                       SUM=    1. 0 01: PT1         256. 03      4. 071 No_date    28: 22    21. 98   n/ a      . 000
08442> R0025: C00081-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08443>       CONTINUOUS NASHYD       1. 0 01: O- 7        5. 28        . 078 No_date    28: 37    18. 08   . 243    . 000
08444>         [ CN= 54. 0: N= 3. 00: Tp= . 60]
08445>         [ IaREC= 4. 00: SM N= 87. 01: SMX= 580. 07: SK= . 010]
08446>         [ InterEventTime= 12. 00]
08447> R0025: C00082-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08448>       ADD HYD                 1. 0 02: PT1         256. 03      4. 071 No_date    28: 22    21. 98   n/ a      . 000
08449>                       +       1. 0 02: O- 7        5. 28        . 078 No_date    28: 37    18. 08   n/ a      . 000
08450>                       SUM=    1. 0 01: FF          261. 31      4. 141 No_date    28: 22    21. 91   n/ a      . 000
08451> R0025: C00083-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08452>       ROUTE CHANNEL           ->      1. 0 02: FF          261. 31      4. 141 No_date    28: 22    21. 91   n/ a      . 000
08453>         [ RDT= 1. 00] out <-          1. 0 01: DRAI NI     261. 31      4. 014 No_date    28: 28    21. 91   n/ a      . 000
08454>         [ L/ S/ n= 302. / 1. 000/ . 043]
08455>         [ Vmax= . 793: Dmax= . 719]
08456> R0025: C00084-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08457>       CONTINUOUS NASHYD       1. 0 01: DI          1. 17        . 078 No_date    28: 12    37. 38   . 502    . 000
08458>         [ CN= 84. 0: N= 3. 00: Tp= . 28]
08459>         [ IaREC= 4. 00: SM N= 21. 09: SMX= 140. 62: SK= . 010]
08460>         [ InterEventTime= 12. 00]
08461> R0025: C00085-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08462>       CONTINUOUS STANDHYD     1. 0 01: A1          2. 50        . 464 No_date    28: 01    58. 43   . 785    . 000
08463>         [ XI MP= . 68: TI MP= . 85]
08464>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
08465>         [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
08466>         [ Impervious     area: I Aimp= 1. 57: SLPI=  . 50: LGI=  224. : MNI= . 013: SCI=    . 0]
08467>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08468> R0025: C00086-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08469>       ROUTE RESERVOIR ->      1. 0 02: A1          2. 50        . 464 No_date    28: 01    58. 43   n/ a      . 000
08470>                       out <=  1. 0 01: A1- STR     2. 50        . 117 No_date    28: 22    58. 43   n/ a      . 000
08471>                       overflow <=  1. 0 03: A1- OVF        . 00          . 000 No_date    0: 00     . 00     n/ a      . 000
08472>     [ MuSt oRed= . 6660E- 01   m3,  Tot Or f Vol = . 0000E+ 00   m3,  N- Or f =     0.,  Tot Dur Or f =     0. hr s]
08473> R0025: C00087-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08474>       CONTINUOUS STANDHYD     1. 0 01: ST- 2       . 59         . 091 No_date    28: 00    45. 54   . 612    . 000
08475>         [ XI MP= . 46: TI MP= . 57]
08476>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
08477>         [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
08478>         [ Impervious     area: I Aimp= 1. 57: SLPI=  . 50: LGI=  109. : MNI= . 013: SCI=    . 0]
08479>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08480> R0025: C00088-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08481>       ROUTE RESERVOIR ->      1. 0 02: ST- 2       . 59         . 091 No_date    28: 00    45. 54   n/ a      . 000
08482>                       out <=  1. 0 01: ST2STR      . 59         . 052 No_date    28: 07    45. 54   n/ a      . 000
08483>                       overflow <=  1. 0 03: ST2OVF         . 00          . 000 No_date    0: 00     . 00     n/ a      . 000
08484>     [ MuSt oRed= . 2899E- 02   m3,  Tot Or f Vol = . 0000E+ 00   m3,  N- Or f =     0.,  Tot Dur Or f =     0. hr s]
08485> R0025: C00089-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08486>       CONTINUOUS NASHYD       1. 0 01: O- 8        60. 55       1. 147 No_date    29: 04    28. 63   . 385    . 000
08487>         [ CN= 69. 0: N= 3. 00: Tp= 1. 00]
08488>         [ IaREC= 4. 00: SM N= 44. 82: SMX= 298. 82: SK= . 010]
08489>         [ InterEventTime= 12. 00]
08490> R0025: C00090-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08491>       ROUTE PIPE      ->      1. 0 02: O- 8        60. 55       1. 147 No_date    29: 04    28. 63   n/ a      . 000
08492>         [ RDT= 1. 00] out <-          1. 0 01: OSP1PE      60. 55       1. 141 No_date    29: 08    28. 63   n/ a      . 000
08493>         [ L/ S/ n= 335. / . 100/ . 013]
08494>         [ Vmax= 1. 178: Dmax= . 540]
08495>         [ HGT= 1. 20: WDT= 1. 80]
08496> R0025: C00091-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08497>       ADD HYD                 1. 0 02: DRAI NI     261. 31      4. 014 No_date    28: 28    21. 91   n/ a      . 000
08498>                       +       1. 0 02: DI          1. 17        . 078 No_date    28: 12    37. 38   n/ a      . 000
08499>                       +       1. 0 02: A1- STR     2. 50        . 117 No_date    28: 22    58. 43   n/ a      . 000
08500>                       +       1. 0 02: A1- OVF     . 00         . 000 No_date    0: 00     . 00     n/ a      . 000
08501>                       +       1. 0 02: ST2STR      . 59         . 052 No_date    28: 07    45. 54   n/ a      . 000
08502>                       +       1. 0 02: ST2OVF      . 00         . 000 No_date    0: 00     . 00     n/ a      . 000
08503>                       +       1. 0 02: OSP1PE      60. 55       1. 141 No_date    29: 08    28. 63   n/ a      . 000
08504>                       SUM=    1. 0 01: ST2- 1N     326. 12      5. 017 No_date    28: 36    23. 53   n/ a      . 000
08505> R0025: C00092-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08506>       CONTINUOUS STANDHYD     1. 0 01: A7          3. 51        . 635 No_date    28: 01    58. 43   . 785    . 000
08507>         [ XI MP= . 68: TI MP= . 85]
08508>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
08509>         [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
08510>         [ Impervious     area: I Aimp= 1. 57: SLPI=  . 50: LGI=  265. : MNI= . 013: SCI=    . 0]
08511>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08512> R0025: C00093-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08513>       ROUTE RESERVOIR ->      1. 0 02: A7          3. 51        . 635 No_date    28: 01    58. 43   n/ a      . 000
08514>                       out <=  1. 0 01: A7- STR     3. 51        . 164 No_date    28: 23    58. 43   n/ a      . 000
08515>                       overflow <=  1. 0 03: A7- OVF        . 00          . 000 No_date    0: 00     . 00     n/ a      . 000
08516>     [ MuSt oRed= . 9358E- 01   m3,  Tot Or f Vol = . 0000E+ 00   m3,  N- Or f =     0.,  Tot Dur Or f =     0. hr s]
08517> R0025: C00094-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08518>       CONTINUOUS STANDHYD     1. 0 01: ST- 3       . 71         . 108 No_date    28: 00    45. 54   . 612    . 000
08519>         [ XI MP= . 46: TI MP= . 57]
08520>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
08521>         [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
08522>         [ Impervious     area: I Aimp= 1. 57: SLPI=  . 50: LGI=  119. : MNI= . 013: SCI=    . 0]
08523>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08524> R0025: C00095-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08525>       ROUTE RESERVOIR ->      1. 0 02: ST- 3       . 71         . 108 No_date    28: 00    45. 54   n/ a      . 000
08526>                       out <=  1. 0 01: ST3STR      . 71         . 063 No_date    28: 08    45. 54   n/ a      . 000
08527>                       overflow <=  1. 0 03: ST3OVF         . 00          . 000 No_date    0: 00     . 00     n/ a      . 000
08528>     [ MuSt oRed= . 3355E- 02   m3,  Tot Or f Vol = . 0000E+ 00   m3,  N- Or f =     0.,  Tot Dur Or f =     0. hr s]
08529> R0025: C00096-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08530>       ADD HYD                 1. 0 02: ST2- 1N     326. 12      5. 017 No_date    28: 36    23. 53   n/ a      . 000
08531>                       +       1. 0 02: PT2STR      3. 51        . 164 No_date    28: 23    58. 43   n/ a      . 000
08532>                       +       1. 0 02: A7- OVF     . 00         . 000 No_date    0: 00     . 00     n/ a      . 000
08533>                       +       1. 0 02: ST3STR      . 71         . 063 No_date    28: 08    45. 54   n/ a      . 000
08534>                       +       1. 0 02: ST3OVF      . 00         . 000 No_date    0: 00     . 00     n/ a      . 000
08535>                       SUM=    1. 0 01: PT2ST3      330. 34      5. 204 No_date    28: 28    23. 95   n/ a      . 000
08536> R0025: C00097-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08537>       ROUTE CHANNEL           ->      1. 0 02: PT2ST3      330. 34      5. 204 No_date    28: 28    23. 95   n/ a      . 000
08538>         [ RDT= 1. 00] out <-          1. 0 01: DRAI N2     330. 34      4. 806 No_date    29: 00    23. 95   n/ a      . 000
08539>         [ L/ S/ n= 592. / . 230/ . 043]
08540>         [ Vmax= . 581: Dmax= 1. 088]
08541> R0025: C00098-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08542>       CONTINUOUS NASHYD       1. 0 01: D2          2. 28        . 062 No_date    29: 03    37. 38   . 502    . 000
08543>         [ CN= 84. 0: N= 3. 00: Tp= . 99]
08544>         [ IaREC= 4. 00: SM N= 21. 09: SMX= 140. 62: SK= . 010]
08545>         [ InterEventTime= 12. 00]
08546> R0025: C00099-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08547>       CONTINUOUS STANDHYD     1. 0 01: A17         12. 04       1. 933 No_date    28: 03    58. 43   . 785    . 000
08548>         [ XI MP= . 68: TI MP= . 85]
08549>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
08550>         [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
08551>         [ Impervious     area: I Aimp= 1. 57: SLPI=  . 50: LGI=  491. : MNI= . 013: SCI=    . 0]
08552>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08553> R0025: C00100-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08554>       ROUTE RESERVOIR ->      1. 0 02: A17         12. 04       1. 933 No_date    28: 03    58. 43   n/ a      . 000
08555>                       out <=  1. 0 01: A17STR      12. 04       . 553 No_date    28: 29    58. 43   n/ a      . 000
08556>                       overflow <=  1. 0 03: A17OVF         . 00          . 000 No_date    0: 00     . 00     n/ a      . 000
08557>     [ MuSt oRed= . 3155E+ 00   m3,  Tot Or f Vol = . 0000E+ 00   m3,  N- Or f =     0.,  Tot Dur Or f =     0. hr s]
08558> R0025: C00101-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08559>       CONTINUOUS STANDHYD     1. 0 01: ST- 4       . 35         . 055 No_date    28: 00    45. 54   . 612    . 000
08560>         [ XI MP= . 46: TI MP= . 57]
08561>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
08562>         [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
08563>         [ Impervious     area: I Aimp= 1. 57: SLPI=  . 50: LGI=  84. : MNI= . 013: SCI=    . 0]
08564>         [ IaRECi mp=  4. 00: IaRECper=  4. 00]
08565> R0025: C00102-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08566>       ROUTE RESERVOIR ->      1. 0 02: ST- 4       . 35         . 055 No_date    28: 00    45. 54   n/ a      . 000
08567>                       out <=  1. 0 01: ST4STR      . 35         . 031 No_date    28: 07    45. 54   n/ a      . 000
08568>                       overflow <=  1. 0 03: ST4OVF         . 00          . 000 No_date    0: 00     . 00     n/ a      . 000
08569>     [ MuSt oRed= . 2092E- 02   m3,  Tot Or f Vol = . 0000E+ 00   m3,  N- Or f =     0.,  Tot Dur Or f =     0. hr s]
08570> R0025: C00103-------------DTmin-1 D: NHYD---------AREAha - QPEAK cms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08571>       CONTINUOUS STANDHYD     1. 0 01: A18         5. 30        . 922 No_date    28: 02    58. 43   . 785    . 000
08572>         [ XI MP= . 68: TI MP= . 85]
08573>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F=  . 00]
08574>         [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
08575>         [ Impervious     area: I Aimp= 1. 57: SLPI=  . 50
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08603>      CONTI NUOUS STANDHYD    1.0 01: C1                3.41     .618 No_date   28: 01   58. 43 .785     .000
08604>        [ XI M%= 68: TI M%= 85]
08605>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08606>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 50. : MNP=. 250: SCP=    .0]
08607>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI = 261. : MNI =. 013: SCI =    .0]
08608>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08609> R0025: C00109- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08610>      ROUTE RESERVOI R ->      1. 0 02: C1               3.41     .618 No_date   28: 01   58. 43   n/ a     .000
08611>                       out <=  1. 0 01: C1- STR          3.41     .159 No_date   28: 23   58. 43   n/ a     .000
08612>                  overflow <=  1. 0 03: C1- OVF          .00      .000 No_date   0: 00     .00   n/ a     .000
08613>        [ MI StolKed=. 90806E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08614> R0025: C00110- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08615>      CONTI NUOUS STANDHYD    1. 0 01: ST- 5            .45      .071 No_date   28: 00   45. 54 .612     .000
08616>        [ XI M%= 46: TI M%= 57]
08617>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08618>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 50. : MNP=. 250: SCP=    .0]
08619>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =  95. : MNI =. 013: SCI =    .0]
08620>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08621> R0025: C00111- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08622>      ROUTE RESERVOI R ->      1. 0 02: ST- 5            .45      .071 No_date   28: 00   45. 54   n/ a     .000
08623>                       out <=  1. 0 01: ST5STR           .45      .040 No_date   28: 07   45. 54   n/ a     .000
08624>                  overflow <=  1. 0 03: ST5OVF           .00      .000 No_date   0: 00     .00   n/ a     .000
08625>        [ MI StolKed=. 2455E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08626> R0025: C00112- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08627>      ADD HYD                 1. 0 02: DRAI N3          350. 31    5. 293 No_date   29: 13   25. 77   n/ a     .000
08628>                        +     1. 0 02: D3               2. 51      .095 No_date   28: 43   40. 67   n/ a     .000
08629>                        +     1. 0 02: C1- STR          3. 41      .159 No_date   28: 23   58. 43   n/ a     .000
08630>                        +     1. 0 02: C1- OVF          .00        .000 No_date   0: 00     .00   n/ a     .000
08631>                        +     1. 0 02: ST5STR           .45        .040 No_date   28: 07   45. 54   n/ a     .000
08632>                        +     1. 0 02: ST5OVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08633>                        SUM=  1. 0 01: ST5- E           356. 68    5. 480 No_date   29: 11   26. 21   n/ a     .000
08634> R0025: C00113- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08635>      CONTI NUOUS STANDHYD    1. 0 01: STRAND           7. 59      .918 No_date   28: 10   57. 02 .767     .000
08636>        [ XI M%= 64: TI M%= 85]
08637>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08638>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 40. : MNP=. 250: SCP=    .0]
08639>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =1230. : MNI =. 013: SCI =    .0]
08640>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08641> R0025: C00114- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08642>      ROUTE RESERVOI R ->      1. 0 02: STRAND           7. 59      .918 No_date   28: 10   57. 02   n/ a     .000
08643>                       out <=  1. 0 01: S- POND          7. 59      .109 No_date   29: 19   57. 02   n/ a     .000
08644>                  overflow <=  1. 0 03: S- OVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08645>        [ MI StolKed=. 2915E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08646> R0025: C00115- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08647>      ADD HYD                 1. 0 02: ST5- E           356. 68    5. 480 No_date   29: 11   26. 21   n/ a     .000
08648>                        +     1. 0 02: S- POND          7. 59      .109 No_date   29: 19   57. 02   n/ a     .000
08649>                        +     1. 0 02: S- OVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08650>                        SUM=  1. 0 01: SSAOUT           364. 27    5. 589 No_date   29: 11   26. 85   n/ a     .000
08651> R0025: C00116- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08652>      SAVE HYD                1. 0 01: SSAOUT           364. 27    5. 589 No_date   29: 11   26. 85   n/ a     .000
08653>        fname : SSAOUT. 0025
08654>        remark: SSAOUT
08655> R0025: C00117- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08656>      CONTI NUOUS STANDHYD    1. 0 01: Area- A          66. 75     7. 879 No_date   28: 09   56. 06 .754     .000
08657>        [ XI M%= 64: TI M%= 80]
08658>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08659>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 50. : MNP=. 250: SCP=    .0]
08660>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =1155. : MNI =. 013: SCI =    .0]
08661>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08662> R0025: C00118- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08663>      SAVE HYD                1. 0 01: Area- A          66. 75     7. 879 No_date   28: 09   56. 06   n/ a     .000
08664>        fname : Area- A 0025
08665>        remark: SWMF- A I nflow
08666> R0025: C00119- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08667>      ROUTE RESERVOI R ->      1. 0 02: Area- A          66. 75     7. 879 No_date   28: 09   56. 06   n/ a     .000
08668>                       out <=  1. 0 01: SWMF- A          66. 75     .788 No_date   29: 28   56. 05   n/ a     .000
08669>                  overflow <=  1. 0 03: SWMOVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08670>        [ MI StolKed=. 2643E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08671> R0025: C00120- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08672>      SAVE HYD                1. 0 01: SWMF- A          66. 75     .788 No_date   29: 28   56. 05   n/ a     .000
08673>        fname : SWMF- A 0025
08674>        remark: SWMF- A Out flow
08675> R0025: C00121- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08676>      ADD HYD                 1. 0 02: SSAOUT           364. 27    5. 589 No_date   29: 11   26. 85   n/ a     .000
08677>                        +     1. 0 02: SWMF- A          66. 75     .788 No_date   29: 28   56. 05   n/ a     .000
08678>                        +     1. 0 02: SWMOVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08679>                        SUM=  1. 0 01: PT4STS           431. 02    6. 356 No_date   29: 13   31. 37   n/ a     .000
08680> R0025: C00122- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08681>      CONTI NUOUS STANDHYD    1. 0 01: C6               1. 87      .354 No_date   28: 01   58. 43 .785     .000
08682>        [ XI M%= 68: TI M%= 85]
08683>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08684>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 50. : MNP=. 250: SCP=    .0]
08685>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =  193. : MNI =. 013: SCI =    .0]
08686>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08687> R0025: C00123- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08688>      ROUTE RESERVOI R ->      1. 0 02: C6               1. 87      .354 No_date   28: 01   58. 43   n/ a     .000
08689>                       out <=  1. 0 01: C6- STR          1. 87      .089 No_date   28: 21   58. 43   n/ a     .000
08690>                  overflow <=  1. 0 03: C6- OVF          .00        .000 No_date   0: 00     .00   n/ a     .000
08691>        [ MI StolKed=. 5013E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08692> R0025: C00124- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08693>      CONTI NUOUS STANDHYD    1. 0 01: C7               1. 62      .309 No_date   28: 01   58. 43 .785     .000
08694>        [ XI M%= 68: TI M%= 85]
08695>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08696>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 50. : MNP=. 250: SCP=    .0]
08697>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =  180. : MNI =. 013: SCI =    .0]
08698>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08699> R0025: C00125- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08700>      ROUTE RESERVOI R ->      1. 0 02: C7               1. 62      .309 No_date   28: 01   58. 43   n/ a     .000
08701>                       out <=  1. 0 01: C7- STR          1. 62      .077 No_date   28: 21   58. 43   n/ a     .000
08702>                  overflow <=  1. 0 03: C7- OVF          .00        .000 No_date   0: 00     .00   n/ a     .000
08703>        [ MI StolKed=. 4331E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08704> R0025: C00126- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08705>      CONTI NUOUS STANDHYD    1. 0 01: ST- 6            .41      .065 No_date   28: 00   45. 54 .612     .000
08706>        [ XI M%= 46: TI M%= 57]
08707>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08708>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 50. : MNP=. 250: SCP=    .0]
08709>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =  91. : MNI =. 013: SCI =    .0]
08710>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08711> R0025: C00127- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08712>      ROUTE RESERVOI R ->      1. 0 02: ST- 6            .41      .065 No_date   28: 00   45. 54   n/ a     .000
08713>                       out <=  1. 0 01: ST6STR           .41      .036 No_date   28: 07   45. 54   n/ a     .000
08714>                  overflow <=  1. 0 03: ST6OVF           .00      .000 No_date   0: 00     .00   n/ a     .000
08715>        [ MI StolKed=. 2350E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08716> R0025: C00128- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08717>      ADD HYD                 1. 0 02: PT4STS           431. 02    6. 356 No_date   29: 13   31. 37   n/ a     .000
08718>                        +     1. 0 02: C6- STR          1. 87      .089 No_date   28: 21   58. 43   n/ a     .000
08719>                        +     1. 0 02: C6- OVF          .00        .000 No_date   0: 00     .00   n/ a     .000
08720>                        +     1. 0 02: C7- STR          1. 62      .077 No_date   28: 21   58. 43   n/ a     .000
08721>                        +     1. 0 02: C7- OVF          .00        .000 No_date   0: 00     .00   n/ a     .000
08722>                        +     1. 0 02: ST6STR           .41        .036 No_date   28: 07   45. 54   n/ a     .000
08723>                        +     1. 0 02: ST6OVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08724>                        SUM=  1. 0 01: PT5STS           434. 92    6. 464 No_date   29: 12   31. 60   n/ a     .000
08725> R0025: C00129- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08726>      ROUTE CHANNEL           ->      1. 0 02: PT5STS           434. 92    6. 464 No_date   29: 12   31. 60   n/ a     .000
08727>        [ RDT= 1. 00] out <-          1. 0 01: DRAI N4          434. 92    6. 229 No_date   29: 21   31. 60   n/ a     .000
08728>        [ L/ S/ n=  324. /  . 100/ . 043]
08729>        [ Vmx=  . 475: Dmx=  1. 440]
08730> R0025: C00130- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08731>      CONTI NUOUS NASHYD      1. 0 01: D4               1. 73      .082 No_date   28: 34   43. 34 .583     .000
08732>        [ CN= 88. 0: N= 3. 00: Tp=  . 60]
08733>        [ I aREC= 4. 00: SM N= 14. 94: SMX= 99. 61: SK= .010]
08734>        [ I nterEvent Time=  12. 00]
08735> R0025: C00131- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08736>      CONTI NUOUS STANDHYD    1. 0 01: Area- B          24. 04     3. 916 No_date   28: 03   54. 85 .737     .000
08737>        [ XI M%= 62: TI M%= 77]
08738>        [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
08739>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 40: LGP= 50. : MNP=. 250: SCP=    .0]
08740>        [ I mpervious   area: I Aimp= 1. 57: SLPI =1. 40: LGI = 693. : MNI =. 013: SCI =    .0]
08741>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08742> R0025: C00132- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08743>      ROUTE RESERVOI R ->      1. 0 02: Area- B          24. 04     3. 916 No_date   28: 03   54. 85   n/ a     .000
08744>                       out <=  1. 0 01: SWMF- B          24. 04     .492 No_date   28: 44   54. 85   n/ a     .000
08745>                  overflow <=  1. 0 03: SWMOVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08746>        [ MI StolKed=. 8178E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08747> R0025: C00133- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08748>      ADD HYD                 1. 0 02: DRAI N4          434. 92    6. 229 No_date   29: 21   31. 60   n/ a     .000
08749>                        +     1. 0 02: D4               1. 73      .082 No_date   28: 34   43. 34   n/ a     .000
08750>                        +     1. 0 02: SWMF- B          24. 04     .492 No_date   28: 44   54. 85   n/ a     .000
08751>                        +     1. 0 02: SWMOVF           .00        .000 No_date   0: 00     .00   n/ a     .000
08752>                        SUM=  1. 0 01: D4- EX           460. 69    6. 717 No_date   29: 21   32. 86   n/ a     .000
08753> R0025: C00134- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08754>      ROUTE CHANNEL           ->      1. 0 02: D4- EX           460. 69    6. 717 No_date   29: 21   32. 86   n/ a     .000
08755>        [ RDT= 1. 00] out <-          1. 0 01: DRAI N5          460. 69    6. 598 No_date   29: 35   32. 86   n/ a     .000
08756>        [ L/ S/ n=  413. /  . 160/ . 033]
08757>        [ Vmx=  . 641: Dmx=  . 984]
08758> R0025: C00135- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08759>      CONTI NUOUS NASHYD      1. 0 01: D5               1. 90      .075 No_date   28: 41   40. 67 .547     .000
08760>        [ CN= 86. 0: N= 3. 00: Tp=  . 69]
08761>        [ I aREC= 4. 00: SM N= 17. 43: SMX= 116. 21: SK= .010]
08762>        [ I nterEvent Time=  12. 00]
08763> R0025: C00136- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08764>      CONTI NUOUS NASHYD      1. 0 01: O 13SDF          9. 74      .487 No_date   28: 22   38. 23 .514     .000
08765>        [ CN= 81. 0: N= 3. 00: Tp=  . 43]
08766>        [ I aREC= 4. 00: SM N= 25. 21: SMX= 168. 09: SK= .010]
08767>        [ I nterEvent Time=  12. 00]
08768> R0025: C00137- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08769>      ROUTE RESERVOI R ->      1. 0 02: O 13SDF          9. 74      .487 No_date   28: 22   38. 23   n/ a     .000
08770>                       out <=  1. 0 01: SDF              9. 74      .052 No_date   31: 01   38. 23   n/ a     .000
08771>                  overflow <=  1. 0 03: OVFSDF           .00        .000 No_date   0: 00     .00   n/ a     .000
08772>        [ MI StolKed=. 2061E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08773> R0025: C00138- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08774>      ADD HYD                 1. 0 02: DRAI N5          460. 69    6. 598 No_date   29: 35   32. 86   n/ a     .000
08775>                        +     1. 0 02: D5               1. 90      .075 No_date   28: 41   40. 67   n/ a     .000
08776>                        +     1. 0 02: SDF              9. 74      .052 No_date   31: 01   38. 23   n/ a     .000
08777>                        SUM=  1. 0 01: PT6MC            472. 33    6. 689 No_date   29: 35   33. 00   n/ a     .000
08778> R0025: C00139- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08779>      CONTI NUOUS NASHYD      1. 0 01: O 15             10. 67     .668 No_date   28: 13   37. 06 .498     .000
08780>        [ CN= 82. 0: N= 3. 00: Tp=  . 30]
08781>        [ I aREC= 4. 00: SM N= 23. 09: SMX= 153. 94: SK= .010]
08782>        [ I nterEvent Time=  12. 00]
08783> R0025: C00140- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08784>      ADD HYD                 1. 0 02: PT6MC            472. 33    6. 689 No_date   29: 35   33. 00   n/ a     .000
08785>                        +     1. 0 02: O 15             10. 67     .668 No_date   28: 13   37. 06   n/ a     .000
08786>                        SUM=  1. 0 01: MC               483. 00    6. 790 No_date   29: 34   33. 09   n/ a     .000
08787> R0025: C00141- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08788>      ROUTE CHANNEL           ->      1. 0 02: MC               483. 00    6. 790 No_date   29: 34   33. 09   n/ a     .000
08789>        [ RDT= 1. 00] out <-          1. 0 01: O 14Ch           483. 00    6. 173 No_date   30: 10   33. 09   n/ a     .000
08790>        [ L/ S/ n=  845. /  . 100/ . 033]
08791>        [ Vmx=  . 552: Dmx=  1. 692]
08792> R0025: C00142- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08793>      CONTI NUOUS NASHYD      1. 0 01: O- 14            5. 00      .516 No_date   28: 04   37. 06 .498     .000
08794>        [ CN= 82. 0: N= 3. 00: Tp=  . 13]
08795>        [ I aREC= 4. 00: SM N= 23. 09: SMX= 153. 94: SK= .010]
08796>        [ I nterEvent Time=  12. 00]
08797> R0025: C00143- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08798>      ADD HYD                 1. 0 02: O- 14Ch          483. 00    6. 173 No_date   30: 10   33. 09   n/ a     .000
08799>                        +     1. 0 02: O- 14            5. 00      .516 No_date   28: 04   37. 06   n/ a     .000
08800>                        SUM=  1. 0 01: OKEEFE           488. 00    6. 203 No_date   30: 09   33. 13   n/ a     .000
08801> #*************************************************************************
08802> #     Okeefe Pond
08803> #   - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
08804> #     and a ratio of the catchment area to the West Clarke pond rating curve
08805> #     from the MSS for the next coordinates
08806> #*************************************************************************
08807> R0025: C00144- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08808>      CONTI NUOUS NASHYD      1. 0 01: S- 1- D2         18. 67     .408 No_date   29: 12   34. 14 .459     .000
08809>        [ CN= 77. 0: N= 3. 00: Tp= 1. 12]
08810>        [ I aREC= 4. 00: SM N= 31. 15: SMX= 207. 66: SK= .010]
08811>        [ I nterEvent Time=  12. 00]
08812> R0025: C00145- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08813>      CONTI NUOUS NASHYD      1. 0 01: S- 1- D3         6. 79      .134 No_date   29: 24   34. 14 .459     .000
08814>        [ CN= 77. 0: N= 3. 00: Tp= 1. 28]
08815>        [ I aREC= 4. 00: SM N= 31. 15: SMX= 207. 66: SK= .010]
08816>        [ I nterEvent Time=  12. 00]
08817> R0025: C00146- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08818>      ADD HYD                 1. 0 02: N_OK             53064. 36  107. 100 No_date   33: 50   28. 66   n/ a     .000
08819>                        +     1. 0 02: O- 14Ch          488. 00    6. 203 No_date   30: 09   33. 13   n/ a     .000
08820>                        +     1. 0 02: S- 1- D2         18. 67     .408 No_date   29: 12   34. 14   n/ a     .000
08821>                        +     1. 0 02: S- 1- D3         6. 79      .134 No_date   29: 24   34. 14   n/ a     .000
08822>                        SUM=  1. 0 01: SN_OK            53577. 82  109. 311 No_date   33: 24   28. 71   n/ a     .000
08823> R0025: C00147- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08824>      SAVE HYD                1. 0 01: SN_OK            53577. 82  109. 311 No_date   33: 24   28. 71   n/ a     .000
08825>        fname : SN_OK 0025
08826>        remark: Total Flows at Okeefe Drain
08827> #
08828> # Hydrograph from Node Okeefe routed to Node at Foster Drain
08829> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
08830> #
08831> R0025: C00148- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08832>      ROUTE CHANNEL           ->      1. 0 02: SN_OK            53577. 82  109. 311 No_date   33: 24   28. 71   n/ a     .000
08833>        [ RDT= 1. 00] out <-          1. 0 01: N_FO             53577. 82  108. 988 No_date   33: 24   28. 71   n/ a     .000
08834>        [ L/ S/ n=  1183. /  . 076/ . 035]
08835>        [ Vmx=  1. 184: Dmx=  3. 160]
08836> #*************************************************************************
08837> #     Catchment FOSTER
08838> #   - To Foster ditch (north of the Jock)
08839> #   - Partially developed (medium density); remaining agricultural
08840> #   - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CHEMILL, Aug 2013.
08841> #   - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
08842> #   - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
08843> #*************************************************************************
08844> R0025: C00149- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08845>      CONTI NUOUS STANDHYD    1. 0 01: FOSTER           325. 44    28. 008 No_date   28: 12   52. 35 .704     .000
08846>        [ XI M%= 55: TI M%= 55]
08847>        [ LOSS= 2 : CN= 74. 0]
08848>        [ Pervious      area: I Aper= 4. 67: SLPP= .50: LGP= 40. : MNP=. 250: SCP=    .0]
08849>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =1473. : MNI =. 013: SCI =    .0]
08850>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08851>        [ SM N= 36. 67: SMX= 244. 49: SK= .010]
08852> #*************************************************************************
08853> #     Foster Pond
08854> #   - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
08855> #     and a ratio of the catchment area to the West Clarke pond rating curve
08856> #     from the MSS for the next coordinates
08857> #*************************************************************************
08858> R0025: C00150- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08859>      ROUTE RESERVOI R ->      1. 0 02: FOSTER           325. 44    28. 008 No_date   28: 12   52. 35   n/ a     .000
08860>                       out <=  1. 0 01: P_FOS            325. 44    7. 246 No_date   29: 04   52. 35   n/ a     .000
08861>                  overflow <=  1. 0 03: FO- OVF          .00        .000 No_date   0: 00     .00   n/ a     .000
08862>        [ MI StolKed=. 7008E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08863> R0025: C00151- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08864>      ADD HYD                 1. 0 02: P_FOS            325. 44    7. 246 No_date   29: 04   52. 35   n/ a     .000
08865>                        +     1. 0 02: FO- OVF          .00        .000 No_date   0: 00     .00   n/ a     .000
08866>                        SUM=  1. 0 01: FOSTER- OUT      325. 44    7. 246 No_date   29: 04   52. 35   n/ a     .000
08867> #*************************************************************************
08868> R0025: C00152- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08869>      CONTI NUOUS STANDHYD    1. 0 01: W_CLAR_BRA       73. 29     9. 076 No_date   28: 05   56. 82 .764     .000
08870>        [ XI M%= 60: TI M%= 65]
08871>        [ LOSS= 2 : CN= 77. 0]
08872>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP= 40. : MNP=. 250: SCP=    .0]
08873>        [ I mpervious   area: I Aimp= 1. 57: SLPI = .50: LGI =  699. : MNI =. 013: SCI =    .0]
08874>        [ I aREC mp=    4. 00: I aREC per=    4. 00]
08875>        [ SM N= 31. 15: SMX= 207. 66: SK= .010]
08876> R0025: C00153- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08877>      ROUTE RESERVOI R ->      1. 0 02: W_CLAR_BRA       73. 29     9. 076 No_date   28: 05   56. 82   n/ a     .000
08878>                       out <=  1. 0 01: NS_P10_OUT       73. 29     1. 168 No_date   29: 06   56. 82   n/ a     .000
08879>                  overflow <=  1. 0 03: P10- OVF         .00        .000 No_date   0: 00     .00   n/ a     .000
08880>        [ MI StolKed=. 1685E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hr s]
08881> R0025: C00154- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08882>      CONTI NUOUS NASHYD      1. 0 01: S- 1- FO- D2     4. 94      .109 No_date   29: 10   34. 14 .459     .000
08883>        [ CN= 77. 0: N= 3. 00: Tp= 1. 10]
08884>        [ I aREC= 4. 00: SM N= 31. 15: SMX= 207. 66: SK= .010]
08885>        [ I nterEvent Time=  12. 00]
08886> R0025: C00155- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08887>      ADD HYD                 1. 0 02: FOSTER- OUT      325. 44    7. 246 No_date   29: 04   52. 35   n/ a     .000
08888>                        +     1. 0 02: S- 1- FO- D2     4. 94      .109 No_date   29: 10   34. 14   n/ a     .000
08889>                        SUM=  1. 0 01: 980              330. 38    7. 355 No_date   29: 04   52. 08   n/ a     .000
08890> R0025: C00156- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08891>      SAVE HYD                1. 0 01: 980              330. 38    7. 355 No_date   29: 04   52. 08   n/ a     .000
08892>        fname : 980. 0025
08893>        remark: Total Flows at Station 980 on Foster Drain
08894> #
08895> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
08896> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
08897> #
08898> R0025: C00157- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08899>      ROUTE CHANNEL           ->      1. 0 02: 980              330. 38    7. 355 No_date   29: 04   52. 08   n/ a     .000
08900> *      [ RDT= 1. 00] out <-          1. 0 01: 980- out         330. 38    7. 085 No_date   29: 14   52. 08   n/ a     .000
08901>        [ L/ S/ n=  460. /  . 043/ . 035]
08902>        [ Vmx=  . 641: Dmx=  1. 123]
08903> R0025: C00158- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08904>      CONTI NUOUS NASHYD      1. 0 01: S- 1- FO- D1     5. 11      .113 No_date   29: 10   34. 14 .459     .000
08905>        [ CN= 77. 0: N= 3. 00: Tp= 1. 00]
08906>        [ I aREC= 4. 00: SM N= 31. 15: SMX= 207. 66: SK= .010]
08907>        [ I nterEvent Time=  12. 00]
08908> R0025: C00159- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08909>      ADD HYD                 1. 0 02: 980- out         330. 38    7. 085 No_date   29: 14   52. 08   n/ a     .000
08910>                        +     1. 0 02: S- 1- FO- D1     5. 11      .113 No_date   29: 10   34. 14   n/ a     .000
08911>                        SUM=  1. 0 01: 520              335. 49    7. 198 No_date   29: 14   51. 81   n/ a     .000
08912> R0025: C00160- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
08913>      SAVE HYD                1. 0 01: 520              335. 49    7. 198 No_date   29: 14   51. 81   n/ a     .000
08914>        fname : 520. 0025
08915>        remark: Total Flows at Station 520 on Foster Drain
08916> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
08917> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
08918> #
08919> R0025: C
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08977>          [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= .010]
08978>          [InterEvent Time=  12. 00]
08979> #     -  JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B.  Change their TP values based on the new areas
08980> #     -  JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore;  "S-1-BCDC-1" is part of "S-1-FO-D2" and
08981> #     -  JFSA 2021-01-19,  after adding Greenbank pond,  "S-1-BCDC-3" is not existing anymore
08982> R0025: C00170- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
08983>          CONTINUOUS NASHYD        1. 0  01: S-1-DI        21. 67        .491 No_date   29: 08   34. 14  .459        .000
08984>          [CN= 77. 0:  N= 3. 00:  Tp= 1. 07]
08985>          [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= .010]
08986>          [InterEvent Time=  12. 00]
08987> R0025: C00171- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
08988>          CONTINUOUS NASHYD        1. 0  02: S-1-D4         3. 28        .073 No_date   29: 10   34. 14  .459        .000
08989>          [CN= 77. 0:  N= 3. 00:  Tp= 1. 10]
08990>          [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= .010]
08991>          [InterEvent Time=  12. 00]
08992> R0025: C00172- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
08993>          CONTINUOUS NASHYD        1. 0  01: S-1-D5        12. 84        .284 No_date   29: 10   34. 14  .459        .000
08994>          [CN= 77. 0:  N= 3. 00:  Tp= 1. 10]
08995>          [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= .010]
08996>          [InterEvent Time=  12. 00]
08997> R0025: C00173- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
08998>          CONTINUOUS NASHYD        1. 0  01: S-1-D6         1. 75        .039 No_date   29: 10   34. 13  .459        .000
08999>          [CN= 77. 0:  N= 3. 00:  Tp= 1. 10]
09000>          [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= .010]
09001>          [InterEvent Time=  12. 00]
09002> R0025: C00174- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09003>          CONTINUOUS NASHYD        1. 0  01: S-1-D7         2. 03        .045 No_date   29: 10   34. 14  .459        .000
09004>          [CN= 77. 0:  N= 3. 00:  Tp= 1. 10]
09005>          [IaREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK= .010]
09006>          [InterEvent Time=  12. 00]
09007> #   Catchment W_CLAR
09008> #     - To West Clarke Drain (south of the Jock)
09009> #     - Subdivision was 43% imp, as per Barrhaven South MSS
09010> #     - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on PS98(04)-11
09011> #     - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL
09012> #*************************************************************************
09013> R0025: C00175- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09014>          CONTINUOUS STANDHYD      1. 0  01: W_CLAR_MI      1. 77        .279 No_date   28: 00   52. 78  .709        .000
09015>          [XI MP= 46. 00:  TI MP= .59]
09016>          [LOSS= 2 :  CN= 77. 0]
09017>          [Pervious       area:  IAper= 4. 67:  SLPP= 1. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09018>          [Impervious     area:  IAimp= 1. 57:  SLPI= 1. 00:  LGI= 109. :  MNI= . 013:  SCI=    .0]
09019>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09020>          [SM N= 31. 15:  SMX= 207. 66:  SK= .010]
09021> # 5-Year + 12% Capture
09022> R0025: C00176- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09023>          ROUTE RESERVOIR -->      1. 0  02: W_CLAR_MI      1. 77        .279 No_date   28: 00   52. 78   n/a        .000
09024>                           out <=  1. 0  01: W_CLAR_Min     1. 73        .213 No_date   27: 54   52. 78   n/a        .000
09025>                overflow <=        1. 0  03: W_CLAR_Mfj      .04        .062 No_date   28: 01   52. 78   n/a        .000
09026>          [MxStoRed= . 1173E- 03   m3,  Tot Or Vol= . 2205E- 02   m3,  N- Or f=     1,  Tot Dur Or f=     0. hrs]
09027> R0025: C00177- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09028>          CONTINUOUS STANDHYD      1. 0  01: W_CLAR_ALL     119. 40      15. 305 No_date   28: 04   56. 82  .764        .000
09029>          [XI MP= 60:  TI MP= . 65]
09030>          [LOSS= 2 :  CN= 77. 0]
09031>          [Pervious       area:  IAper= 4. 67:  SLPP= 1. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09032>          [Impervious     area:  IAimp= 1. 57:  SLPI= 1. 00:  LGI= 892. :  MNI= . 013:  SCI=    .0]
09033>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09034>          [SM N= 31. 15:  SMX= 207. 66:  SK= .010]
09035> R0025: C00178- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09036>          ADD HYD                  1. 0  02: W_CLAR_ALL     119. 40      15. 305 No_date   28: 04   56. 82   n/a        .000
09037>                           +       1. 0  02: W_CLAR_Mfj      .04        .062 No_date   28: 01   52. 78   n/a        .000
09038>                           SUM=    1. 0  01: W_CLAR         119. 44      15. 305 No_date   28: 04   56. 81   n/a        .000
09039> R0025: C00179- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09040>          SAVE HYD                 1. 0  01: W_CLAR         119. 44      15. 305 No_date   28: 04   56. 81   n/a        .000
09041>          fname: W_CLAR_0025
09042>          remark: Total Flows to West Clarke
09043> #*************************************************************************
09044> #     West Clarke Pond 2
09045> #     - Rating curve obtained from Barrhaven South MSS modeling
09046> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
09047> #*************************************************************************
09048> R0025: C00180- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09049>          ROUTE RESERVOIR -->      1. 0  02: W_CLAR         119. 44      15. 305 No_date   28: 04   56. 81   n/a        .000
09050>                           out <=  1. 0  01: MS_P2          119. 44       7. 398 No_date   28: 20   56. 81   n/a        .000
09051>                overflow <=        1. 0  03: P2- OWF          .00        .000 No_date   0: 00     .00   n/a        .000
09052>          [MxStoRed= . 2962E+01   m3,  Tot Or Vol= . 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09053> #*************************************************************************
09054> R0025: C00181- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09055>          ADD HYD                  1. 0  02: N_CE          54118. 36     113. 530 No_date   33: 29   28. 90   n/a        .000
09056>                           +       1. 0  02: S-1-D4         3. 28        .073 No_date   29: 10   34. 14   n/a        .000
09057>                           +       1. 0  02: S-1-D5        12. 84        .284 No_date   29: 10   34. 14   n/a        .000
09058>                           +       1. 0  02: MS_P2         119. 44       7. 398 No_date   28: 20   56. 81   n/a        .000
09059>                           +       1. 0  02: P2- OWF          .00        .000 No_date   0: 00     .00   n/a        .000
09060>                           SUM=    1. 0  01: SN_CE         54253. 92     114. 429 No_date   33: 29   28. 97   n/a        .000
09061> R0025: C00182- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09062>          SAVE HYD                 1. 0  01: SN_CE         54253. 92     114. 429 No_date   33: 29   28. 97   n/a        .000
09063>          fname: SN_CE_0025
09064>          remark: Total Flows before Station 5737 on Jock River
09065> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
09066> # JFSA 2021-02-25 add station 5737 before station 5002.  Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-1
09067> # JFSA 2021-03-02  change the slope to 0. 1% instead of 0. 0175 to stabilize the model
09068> R0025: C00183- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09069>          ROUTE CHANNEL            -->      1. 0  02: SN_CE         54253. 92     114. 429 No_date   33: 29   28. 97   n/a        .000
09070> *        [RDT= 1. 00]  out <-             1. 0  01: 5737           54253. 92     109. 763 No_date   35: 33   28. 97   n/a        .000
09071>          [L/ S/ s=  270. /  . 018/  . 035]
09072>          [Vmx=  . 782:  Dmx=  4. 974]
09073> R0025: C00184- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09074>          ADD HYD                  1. 0  02: 5737           54253. 92     109. 763 No_date   35: 33   28. 97   n/a        .000
09075>                           +       1. 0  02: S-1-DI          21. 67        .491 No_date   29: 08   34. 14   n/a        .000
09076>                           +       1. 0  02: S-1-D6          1. 75        .039 No_date   29: 10   34. 13   n/a        .000
09077>                           +       1. 0  02: S-1-D7          2. 03        .045 No_date   29: 10   34. 14   n/a        .000
09078>                           SUM=    1. 0  01: 5002           54279. 37     109. 841 No_date   35: 33   28. 97   n/a        .000
09079> R0025: C00185- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09080>          SAVE HYD                 1. 0  01: 5002           54279. 37     109. 841 No_date   35: 33   28. 97   n/a        .000
09081>          fname: 5002. 0025
09082>          remark: Total Flows before Station 5002 on Jock River
09083> # Hydrograph from Node West Clarke routed to Node at West Clarke Drain
09084> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
09085> # JFSA 2021-02-19 Change the slope from 0. 01 % (as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
09086> # JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
09087> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m  That is because of adding station 5737 be
09088> R0025: C00186- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09089>          ROUTE CHANNEL            -->      1. 0  02: 5002           54279. 37     109. 841 No_date   35: 33   28. 97   n/a        .000
09090> *        [RDT= 1. 00]  out <-             1. 0  01: N_WCa          54279. 37     109. 813 No_date   35: 41   28. 97   n/a        .000
09091>          [L/ S/ s=  245. /  . 095/  . 035]
09092>          [Vmx=  1. 217:  Dmx=  2. 801]
09093> R0025: C00187- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09094>          ROUTE CHANNEL            -->      1. 0  02: N_WCa          54279. 37     109. 813 No_date   35: 41   28. 97   n/a        .000
09095> *        [RDT= 1. 00]  out <-             1. 0  01: N_WCb          54279. 37     109. 805 No_date   35: 46   28. 97   n/a        .000
09096>          [L/ S/ s=  245. /  . 095/  . 035]
09097>          [Vmx=  1. 217:  Dmx=  2. 801]
09098> R0025: C00188- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09099>          ROUTE CHANNEL            -->      1. 0  02: N_WCb          54279. 37     109. 805 No_date   35: 46   28. 97   n/a        .000
09100> *        [RDT= 1. 00]  out <-             1. 0  01: N_WC           54279. 37     109. 787 No_date   35: 53   28. 97   n/a        .000
09101>          [L/ S/ s=  245. /  . 095/  . 035]
09102>          [Vmx=  1. 217:  Dmx=  2. 801]
09103> #*************************************************************************
09104> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
09105> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
09106> #
09107> R0025: C00189- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09108>          ROUTE CHANNEL            -->      1. 0  02: N_WC           54279. 37     109. 787 No_date   35: 53   28. 97   n/a        .000
09109> *        [RDT= 1. 00]  out <-             1. 0  01: N_KB           54279. 37     109. 399 No_date   36: 10   28. 97   n/a        .000
09110>          [L/ S/ s=  1020. /  . 050/  . 035]
09111>          [Vmx=  1. 078:  Dmx=  3. 514]
09112> #*************************************************************************
09113> #     Catchment KEN_BU
09114> #     - To Kennedy-Burnett SWM Facility
09115> #     - Outlets to Fraser-Clarke drain (north of the Jock)
09116> #     - Medium density residential subdivision
09117> #*************************************************************************
09118> #*************************************************************************
09119> #   Existing Kennedy-Burnett SWM Facility
09120> #     - Rating curve obtained from URTKHP
09121> #     - Tributary Drainage Area to Pond = 160 ha
09122> #*************************************************************************
09123> R0025: C00190- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09124>          CONTINUOUS STANDHYD      1. 0  01: KB- 01A        40. 82       4. 186 No_date   28: 11   29. 35  .395        .000
09125>          [XI MP= 10:  TI MP= . 40]
09126>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09127>          [Pervious       area:  IAper= 4. 67:  SLPP= . 50:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09128>          [Impervious     area:  IAimp= . 79:  SLPI= . 50:  LGI= 522. :  MNI= . 013:  SCI=    .0]
09129>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09130> R0025: C00191- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09131>          COMPUTE DUALHYD          1. 0  01: KB- 01A        40. 82       4. 186 No_date   28: 11   29. 35   n/a        .000
09132>                           Major System    /       1. 0  02: KB- 01A- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09133>                           Minor System    \       1. 0  03: KB- 01A- MN     40. 82       3. 600 No_date   28: 03   29. 50   n/a        .000
09134>          [MJSysSto= . 3786E+03,  Tot Or Vol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09135> R0025: C00192- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09136>          ADD HYD                  1. 0  02: KB- 01A- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09137>                           +       1. 0  02: KB- 01A- MN     40. 82       3. 600 No_date   28: 03   29. 50   n/a        .000
09138>                           SUM=    1. 0  01: KB- 01A- S      40. 82       3. 600 No_date   28: 03   29. 50   n/a        .000
09139> R0025: C00193- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09140>          CONTINUOUS STANDHYD      1. 0  01: KB- 01B        31. 10       3. 068 No_date   28: 07   32. 30  .434        .000
09141>          [XI MP= 19:  TI MP= . 38]
09142>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09143>          [Pervious       area:  IAper= 4. 67:  SLPP= . 42:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09144>          [Impervious     area:  IAimp= . 79:  SLPI= . 42:  LGI= 455. :  MNI= . 013:  SCI=    .0]
09145>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09146> R0025: C00194- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09147>          COMPUTE DUALHYD          1. 0  01: KB- 01B        31. 10       3. 068 No_date   28: 07   32. 30   n/a        .000
09148>                           Major System    /       1. 0  02: KB- 01B- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09149>                           Minor System    \       1. 0  03: KB- 01B- MN     31. 10       1. 585 No_date   27: 55   32. 52   n/a        .000
09150>          [MJSysSto= . 1849E+04,  Tot Or Vol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09151> R0025: C00195- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09152>          ADD HYD                  1. 0  02: KB- 01B- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09153>                           +       1. 0  02: KB- 01B- MN     31. 10       1. 585 No_date   27: 55   32. 52   n/a        .000
09154>                           SUM=    1. 0  01: KB- 01B- S      31. 10       1. 585 No_date   27: 55   32. 52   n/a        .000
09155> R0025: C00196- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09156>          CONTINUOUS STANDHYD      1. 0  01: KB- 01C        13. 78       1. 868 No_date   28: 04   33. 51  .450        .000
09157>          [XI MP= 20:  TI MP= . 41]
09158>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09159>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09160>          [Impervious     area:  IAimp= . 79:  SLPI= . 50:  LGI= 303. :  MNI= . 013:  SCI=    .0]
09161>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09162> R0025: C00197- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09163>          COMPUTE DUALHYD          1. 0  01: KB- 01C        13. 78       1. 868 No_date   28: 04   33. 51   n/a        .000
09164>                           Major System    /       1. 0  02: KB- 01C- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09165>                           Minor System    \       1. 0  03: KB- 01C- MN     13. 78       1. 350 No_date   27: 57   33. 69   n/a        .000
09166>          [MJSysSto= . 3173E+03,  Tot Or Vol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09167> R0025: C00198- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09168>          ADD HYD                  1. 0  02: KB- 01C- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09169>                           +       1. 0  02: KB- 01C- MN     13. 78       1. 350 No_date   27: 57   33. 69   n/a        .000
09170>                           SUM=    1. 0  01: KB- 01C- S      13. 78       1. 350 No_date   27: 57   33. 69   n/a        .000
09171> R0025: C00199- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09172>          CONTINUOUS STANDHYD      1. 0  01: KB- 03         84. 78       9. 657 No_date   28: 08   32. 97  .443        .000
09173>          [XI MP= . 20:  TI MP= . 39]
09174>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09175>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09176>          [Impervious     area:  IAimp= . 79:  SLPI= . 63:  LGI= 752. :  MNI= . 013:  SCI=    .0]
09177>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09178> R0025: C00200- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09179>          COMPUTE DUALHYD          1. 0  01: KB- 03         84. 78       9. 657 No_date   28: 08   32. 97   n/a        .000
09180>                           Major System    /       1. 0  02: KB- 03- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09181>                           Minor System    \       1. 0  03: KB- 03- MN     84. 78       5. 270 No_date   27: 56   33. 21   n/a        .000
09182>          [MJSysSto= . 4456E+04,  Tot Or Vol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09183> R0025: C00201- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09184>          ADD HYD                  1. 0  02: KB- 03- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09185>                           +       1. 0  02: KB- 03- MN     84. 78       5. 270 No_date   27: 56   33. 21   n/a        .000
09186>                           SUM=    1. 0  01: KB- 03- S      84. 78       5. 270 No_date   27: 56   33. 21   n/a        .000
09187> R0025: C00202- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09188>          CONTINUOUS STANDHYD      1. 0  01: KB- 04         6. 95       1. 434 No_date   28: 00   65. 29  .878        .000
09189>          [XI MP= . 85:  TI MP= . 85]
09190>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09191>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09192>          [Impervious     area:  IAimp= . 94:  SLPI= . 50:  LGI= 215. :  MNI= . 013:  SCI=    .0]
09193>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09194> R0025: C00203- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09195>          COMPUTE DUALHYD          1. 0  01: KB- 04         6. 95       1. 434 No_date   28: 00   65. 29   n/a        .000
09196>                           Major System    /       1. 0  02: KB- 04- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09197>                           Minor System    \       1. 0  03: KB- 04- MN     6. 95        .503 No_date   27: 45   65. 54   n/a        .000
09198>          [MJSysSto= . 7689E+03,  Tot Or Vol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09199> R0025: C00204- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09200>          ADD HYD                  1. 0  02: KB- 04- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09201>                           +       1. 0  02: KB- 04- MN     6. 95        .503 No_date   27: 45   65. 54   n/a        .000
09202>                           SUM=    1. 0  01: KB- 04- S      6. 95        .503 No_date   27: 45   65. 54   n/a        .000
09203> R0025: C00205- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09204>          CONTINUOUS STANDHYD      1. 0  01: KB- 05         5. 19       1. 147 No_date   28: 00   69. 06  .928        .000
09205>          [XI MP= . 93:  TI MP= . 93]
09206>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09207>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09208>          [Impervious     area:  IAimp= 1. 57:  SLPI= . 50:  LGI= 186. :  MNI= . 013:  SCI=    .0]
09209>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09210> R0025: C00206- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09211>          CONTINUOUS STANDHYD      1. 0  01: KB- 06        12. 93       2. 960 No_date   28: 00   66. 54  .895        .000
09212>          [XI MP= . 87:  TI MP= . 87]
09213>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09214>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09215>          [Impervious     area:  IAimp= . 94:  SLPI= 4. 75:  LGI= 294. :  MNI= . 013:  SCI=    .0]
09216>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09217> R0025: C00207- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09218>          COMPUTE DUALHYD          1. 0  01: KB- 06        12. 93       2. 960 No_date   28: 00   66. 54   n/a        .000
09219>                           Major System    /       1. 0  02: KB- 06- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09220>                           Minor System    \       1. 0  03: KB- 06- MN     12. 93       2. 262 No_date   28: 07   66. 58   n/a        .000
09221>          [MJSysSto= . 2613E+03,  Tot Or Vol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09222> R0025: C00208- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09223>          ADD HYD                  1. 0  02: KB- 06- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09224>                           +       1. 0  02: KB- 06- MN     12. 93       2. 262 No_date   28: 07   66. 58   n/a        .000
09225>                           SUM=    1. 0  01: KB- 06- S      12. 93       2. 262 No_date   28: 07   66. 58   n/a        .000
09226> R0025: C00209- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09227>          CONTINUOUS STANDHYD      1. 0  01: KB- 11         4. 03        .817 No_date   28: 00   55. 88  .751        .000
09228>          [XI MP= . 68:  TI MP= . 68]
09229>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09230>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09231>          [Impervious     area:  IAimp= . 79:  SLPI= 2. 00:  LGI= 164. :  MNI= . 013:  SCI=    .0]
09232>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09233> R0025: C00210- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09234>          COMPUTE DUALHYD          1. 0  01: KB- 11         4. 03        .817 No_date   28: 00   55. 88   n/a        .000
09235>                           Major System    /       1. 0  02: KB- 11- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09236>                           Minor System    \       1. 0  03: KB- 11- MN     4. 03        .577 No_date   27: 53   55. 96   n/a        .000
09237>          [MJSysSto= . 9558E+02,  Tot Or Vol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09238> R0025: C00211- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09239>          ADD HYD                  1. 0  02: KB- 11- MI      .00        .000 No_date   0: 00     .00   n/a        .000
09240>                           +       1. 0  02: KB- 11- MN     4. 03        .577 No_date   27: 53   55. 96   n/a        .000
09241>                           SUM=    1. 0  01: KB- 11- S      4. 03        .577 No_date   27: 53   55. 96   n/a        .000
09242> R0025: C00212- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09243>          CONTINUOUS STANDHYD      1. 0  01: S1             4. 99       1. 184 No_date   28: 00   69. 06  .928        .000
09244>          [XI MP= . 93:  TI MP= . 93]
09245>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09246>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09247>          [Impervious     area:  IAimp= 1. 57:  SLPI= 2. 00:  LGI= 182. :  MNI= . 013:  SCI=    .0]
09248>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09249> R0025: C00213- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09250>          CONTINUOUS STANDHYD      1. 0  01: KB- 15         2. 15        .447 No_date   28: 00   62. 65  .842        .000
09251>          [XI MP= . 79:  TI MP= . 79]
09252>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09253>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09254>          [Impervious     area:  IAimp= . 16:  SLPI= . 30:  LGI= 120. :  MNI= . 013:  SCI=    .0]
09255>          [IaREC mp=  4. 00:  IaRECper=  4. 00]
09256> R0025: C00214- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09257>          ADD HYD                  1. 0  02: KB- 01A- S      40. 82       3. 600 No_date   28: 03   29. 50   n/a        .000
09258>                           +       1. 0  02: KB- 01B- S      31. 10       1. 585 No_date   27: 55   32. 52   n/a        .000
09259>                           +       1. 0  02: KB- 01C- S      13. 78       1. 350 No_date   27: 57   33. 69   n/a        .000
09260>                           +       1. 0  02: KB- 03- S      84. 78       5. 270 No_date   27: 56   33. 21   n/a        .000
09261>                           +       1. 0  02: KB- 04- S      6. 95        .503 No_date   27: 45   65. 54   n/a        .000
09262>                           +       1. 0  02: KB- 05         5. 19       1. 147 No_date   28: 00   69. 06   n/a        .000
09263>                           +       1. 0  02: KB- 06- S      12. 93       2. 262 No_date   28: 07   66. 58   n/a        .000
09264>                           +       1. 0  02: KB- 11- S      4. 03        .577 No_date   27: 53   55. 96   n/a        .000
09265>                           +       1. 0  02: KB- 15         2. 15        .447 No_date   28: 00   62. 65   n/a        .000
09266>                           +       1. 0  02: S1             4. 99       1. 184 No_date   28: 00   69. 06   n/a        .000
09267>                           SUM=    1. 0  01: KB- P1         206. 72     17. 555 No_date   28: 01   38. 09   n/a        .000
09268> R0025: C00215- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09269>          ROUTE RESERVOIR -->      1. 0  02: KB- P1         206. 72     17. 555 No_date   28: 01   38. 09   n/a        .000
09270>                           out <=  1. 0  03: KB- P1R        201. 26     12. 438 No_date   28: 05   38. 09   n/a        .000
09271>                overflow <=        1. 0  03: KB- Plovf        5. 46      4. 400 No_date   28: 05   38. 09   n/a        .000
09272>          [MxStoRed= . 7322E+00   m3,  Tot Or Vol= . 2079E+00   m3,  N- Or f=     1,  Tot Dur Or f=     0. hrs]
09273> R0025: C00216- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09274>          ADD HYD                  1. 0  02: KB- P1R        201. 26     12. 438 No_date   28: 05   38. 09   n/a        .000
09275>                           +       1. 0  02: KB- Plovf        5. 46      4. 400 No_date   28: 05   38. 09   n/a        .000
09276>                           SUM=    1. 0  01: KB- Pond1       206. 72     16. 838 No_date   28: 05   38. 09   n/a        .000
09277> R0025: C00217- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09278>          SAVE HYD                 1. 0  01: KB- Pond1       206. 72     16. 838 No_date   28: 05   38. 09   n/a        .000
09279>          fname: KB- Pond1. 0025
09280>          remark: Total Flows at KB first pond
09281> R0025: C00218- ----------DTmin-1 D: NHYD- ---------AREA ha- QPEAK cms- Tpeak Date_hh: mm- ---RVmm R. C. ---DWFcms
09282>          CONTINUOUS STANDHYD      1. 0  01: KB- 07        10. 86       2. 392 No_date   28: 00   65. 97  .887        .000
09283>          [XI MP= . 86:  TI MP= . 86]
09284>          [Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F= .00]
09285>          [Pervious       area:  IAper= 4. 67:  SLPP= 2. 00:  LGP=  40. :  MNP= . 250:  SCP=    .0]
09286>          [Impervious     area:  IAimp= . 79:  SLPI= 2. 
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09351>          CONTINUOUS STANDHYD    1.0 01: KB-13              10.19     1.930 No_date    28:00   53.97 .726      .000
09352>            [XLM]=. 64: TIM]=. 64]
09353>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09354>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09355>            [Impervious     area: IAimp=  .79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=    .0]
09356>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09357> R0025: C00231- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09358>          COMPUTE DUALHYD        1.0 01: KB-13              10.19     1.930 No_date    28:00   53.97  n/a      .000
09359>            Major System   /     1.0 02: KB-13-M            .00       .000 No_date    0:00    .00   n/a      .000
09360>            Minor System   \     1.0 03: KB-13-MN           10.19     1.722 No_date    27:57   53.98  n/a      .000
09361>            [M]SysSto=. 4703E+02,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09362> R0025: C00232- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09363>          ADD HYD                1.0 02: KB-13-M            .00       .000 No_date    0:00    .00   n/a      .000
09364>                           +     1.0 02: KB-13-MN           10.19     1.722 No_date    27:57   53.98  n/a      .000
09365>                         STAN-   1.0 01: KB-13-S            10.19     1.722 No_date    27:57   53.98  n/a      .000
09366> R0025: C00233- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09367>          CONTINUOUS STANDHYD    1.0 01: KB-14              5.47      1.075 No_date    28:00   53.97 .726      .000
09368>            [XLM]=. 64: TIM]=. 64]
09369>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09370>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09371>            [Impervious     area: IAimp=  .79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=    .0]
09372>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09373> R0025: C00234- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09374>          COMPUTE DUALHYD        1.0 01: KB-14              5.47      1.075 No_date    28:00   53.97  n/a      .000
09375>            Major System   /     1.0 02: KB-14-M            .00       .000 No_date    0:00    .00   n/a      .000
09376>            Minor System   \     1.0 03: KB-14-MN           5.47      .873 No_date    27:55   54.32  n/a      .000
09377>            [M]SysSto=. 6018E+02,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09378> R0025: C00235- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09379>          ADD HYD                1.0 02: KB-14-M            .00       .000 No_date    0:00    .00   n/a      .000
09380>                           +     1.0 02: KB-14-MN           5.47      .873 No_date    27:55   54.32  n/a      .000
09381>                         SUM-    1.0 01: KB-14-S            5.47      .873 No_date    27:55   54.32  n/a      .000
09382> R0025: C00236- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09383>          CONTINUOUS STANDHYD    1.0 01: KB-16_2            3.42      .649 No_date    28:01   58. 24 .783     .000
09384>            [XLM]=. 71: TIM]=. 71]
09385>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09386>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09387>            [Impervious     area: IAimp=  .16: SLPI=. 30: LGI= 151. : MNI=. 013: SCI=    .0]
09388>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09389> R0025: C00237- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09390>          ADD HYD                1.0 02: KB-Pond1           206. 72   16. 838 No_date    28:05   38. 09  n/a      .000
09391>                           +     1.0 02: KB-07-S            10. 86    2. 094 No_date    27:56   66. 02  n/a      .000
09392>                           +     1.0 02: KB-08-S            6. 61     1. 058 No_date    27:55   54. 34  n/a      .000
09393>                           +     1.0 02: KB-09              2. 60     .599 No_date      28:00   65. 30  n/a      .000
09394>                           +     1.0 02: KB-10_1            2. 37     .550 No_date      28:00   65. 30  n/a      .000
09395>                           +     1.0 02: KB-10_2            1. 14     .266 No_date      28:00   65. 30  n/a      .000
09396>                           +     1.0 02: KB-12-S            4. 86     .867 No_date      27:54   62. 20  n/a      .000
09397>                           +     1.0 02: KB-13-S            10. 19    1. 722 No_date    27:57   53. 98  n/a      .000
09398>                           +     1.0 02: KB-14-S            5. 47     .873 No_date      27:55   54. 32  n/a      .000
09399>                           +     1.0 02: KB-16_2            3. 42     .649 No_date      28:01   58. 24  n/a      .000
09400>                         SUM-    1.0 01: KB-P2              254. 24   24. 423 No_date   28:05   42. 08  n/a      .000
09401> R0025: C00238- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09402>          ROUTE RESERVOIR -> >   1.0 02: KB-P2              254. 24   24. 423 No_date   28:05   42. 08  n/a      .000
09403>                           out <=1.0 01: KB-P2R             254. 24   17. 126 No_date   28:11   42. 08  n/a      .000
09404>                         overflow <=1.0 03: KB-P2ovf        .00       .000 No_date      0:00    .00   n/a      .000
09405>            [MkStoSked=. 9755E+00   m3,  Tot Or f Vol=. 0000E+00   m3,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09406> R0025: C00239- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09407>          ADD HYD                1.0 02: KB-P2R             254. 24   17. 126 No_date   28:11   42. 08  n/a      .000
09408>                           +     1.0 02: KB-P2ovf           .00       .000 No_date      0:00    .00   n/a      .000
09409>                         SUM-    1.0 01: KB-Pond2           254. 24   17. 126 No_date   28:11   42. 08  n/a      .000
09410> R0025: C00240- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09411>          SAVE HYD               1.0 01: KB-Pond2           254. 24   17. 126 No_date   28:11   42. 08  n/a      .000
09412>            fname: KB-Pond2. 0025]
09413>            remark: Total Flows at KB second pond
09414> R0025: C00241- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09415>          CONTINUOUS STANDHYD    1.0 01: KB-16_1            2.80      .551 No_date    28:01   60. 44 .812     .000
09416>            [XLM]=. 75: TIM]=. 75]
09417>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09418>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09419>            [Impervious     area: IAimp=  .16: SLPI=. 30: LGI= 137. : MNI=. 013: SCI=    .0]
09420>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09421> R0025: C00242- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09422>          ADD HYD                1.0 02: KB-Pond2           254. 24   17. 126 No_date   28:11   42. 08  n/a      .000
09423>                           +     1.0 02: KB-16_1            2. 80     .551 No_date      28:01   60. 44  n/a      .000
09424>                         SUM-    1.0 01: KB-P3              257. 04   17. 347 No_date   28:10   42. 28  n/a      .000
09425> R0025: C00243- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09426>          ROUTE RESERVOIR -> >   1.0 02: KB-P3              257. 04   17. 347 No_date   28:10   42. 28  n/a      .000
09427>                           out <=1.0 01: KB-P3R             10. 42    .051 No_date      17:19   42. 28  n/a      .000
09428>                         overflow <=1.0 03: KB-P3ovf        246. 62   17. 293 No_date   28:10   42. 28  n/a      .000
09429>            [MkStoSked=. 1993E-02   m3,  Tot Or f Vol=. 1043E+02   m3,  N- Or f=    2,  Tot Dur Or f=   23. hrs]
09430> R0025: C00244- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09431>          ADD HYD                1.0 02: KB-P3R             10. 42    .051 No_date      17:19   42. 28  n/a      .000
09432>                           +     1.0 02: KB-P3ovf           246. 62   17. 293 No_date   28:10   42. 28  n/a      .000
09433>                         SUM-    1.0 01: KB-Pond3           257. 04   17. 344 No_date   28:10   42. 28  n/a      .000
09434> R0025: C00245- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09435>          SAVE HYD               1.0 01: KB-Pond3           257. 04   17. 344 No_date   28:10   42. 28  n/a      .000
09436>            fname: KB-Pond3. 0025]
09437>            remark: Total Flows at KB third pond
09438> #*************************************************************************
09439> #   EXISTING / PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility ( 118080) , SWM Modeling Approach, NOVATECH Report Ju
09440> #   TO FRASER-CLARKE DRAIN
09441> #*************************************************************************
09442> R0025: C00246- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09443>          CONTINUOUS STANDHYD    1.0 01: FC-01              8. 03     1. 288 No_date    28:01   44. 33 .596     .000
09444>            [XLM]=. 47: TIM]=. 47]
09445>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09446>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09447>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=    .0]
09448>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09449> R0025: C00247- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09450>          COMPUTE DUALHYD        1.0 01: FC-01              8. 03     1. 288 No_date    28:01   44. 33  n/a      .000
09451>            Major System   /     1.0 02: FC-01-M            .00       .000 No_date    0:00    .00   n/a      .000
09452>            Minor System   \     1.0 03: FC-01-MN           8. 03     .756 No_date      28:25   44. 53  n/a      .000
09453>            [M]SysSto=. 2943E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09454> R0025: C00248- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09455>          ADD HYD                1.0 02: FC-01-M            .00       .000 No_date    0:00    .00   n/a      .000
09456>                           +     1.0 02: FC-01-MN           8. 03     .756 No_date      27:53   44. 53  n/a      .000
09457>                         SUM-    1.0 01: FC-01-S            8. 03     .756 No_date      27:53   44. 53  n/a      .000
09458> R0025: C00249- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09459>          CONTINUOUS STANDHYD    1.0 01: FC-02              16. 05    3. 458 No_date    28:00   69. 06 .928     .000
09460>            [XLM]=. 93: TIM]=. 93]
09461>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09462>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09463>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=    .0]
09464>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09465> R0025: C00250- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09466>          COMPUTE DUALHYD        1.0 01: FC-02              16. 05    3. 458 No_date    28:00   69. 06  n/a      .000
09467>            Major System   /     1.0 02: FC-02-M            .00       .000 No_date    0:00    .00   n/a      .000
09468>            Minor System   \     1.0 03: FC-02-MN           16. 05    1. 159 No_date    27:44   69. 13  n/a      .000
09469>            [M]SysSto=. 1941E+04,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09470> R0025: C00251- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09471>          ADD HYD                1.0 02: FC-02-M            .00       .000 No_date    0:00    .00   n/a      .000
09472>                           +     1.0 02: FC-02-MN           16. 05    1. 159 No_date    27:44   69. 13  n/a      .000
09473>                         SUM-    1.0 01: FC-02-S            16. 05    1. 159 No_date    27:44   69. 13  n/a      .000
09474> R0025: C00252- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09475>          CONTINUOUS STANDHYD    1.0 01: FC-03              7. 37     1. 375 No_date    28:00   53. 47 .719     .000
09476>            [XLM]=. 64: TIM]=. 64]
09477>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09478>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09479>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=    .0]
09480>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09481> R0025: C00253- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09482>          COMPUTE DUALHYD        1.0 01: FC-03              7. 37     1. 375 No_date    28:00   53. 47  n/a      .000
09483>            Major System   /     1.0 02: FC-03-M            .00       .000 No_date    0:00    .00   n/a      .000
09484>            Minor System   \     1.0 03: FC-03-MN           7. 37     .358 No_date      27:43   53. 66  n/a      .000
09485>            [M]SysSto=. 9407E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09486> R0025: C00254- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09487>          ADD HYD                1.0 02: FC-03-M            .00       .000 No_date    0:00    .00   n/a      .000
09488>                           +     1.0 02: FC-03-MN           7. 37     .358 No_date      27:43   53. 66  n/a      .000
09489>                         SUM-    1.0 01: FC-03-S            7. 37     .358 No_date      27:43   53. 66  n/a      .000
09490> R0025: C00255- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09491>          CONTINUOUS STANDHYD    1.0 01: FC-04              12. 87    2. 308 No_date    28:01   53. 47 .719     .000
09492>            [XLM]=. 64: TIM]=. 64]
09493>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09494>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09495>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 293. : MNI=. 013: SCI=    .0]
09496>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09497> R0025: C00256- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09498>          COMPUTE DUALHYD        1.0 01: FC-04              12. 87    2. 308 No_date    28:01   53. 47  n/a      .000
09499>            Major System   /     1.0 02: FC-04-M            .00       .000 No_date    0:00    .00   n/a      .000
09500>            Minor System   \     1.0 03: FC-04-MN           12. 87    .741 No_date      27:45   53. 74  n/a      .000
09501>            [M]SysSto=. 1387E+04,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09502> R0025: C00257- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09503>          ADD HYD                1.0 02: FC-04-M            .00       .000 No_date    0:00    .00   n/a      .000
09504>                           +     1.0 02: FC-04-MN           12. 87    .741 No_date      27:45   53. 74  n/a      .000
09505>                         SUM-    1.0 01: FC-04-S            12. 87    .741 No_date      27:45   53. 74  n/a      .000
09506> #*************************************************************************
09507> #   PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility ( 118080) , SWM Modeling Approach, NOVATECH Report June, 2020)
09508> #   TO JOCK RIVER
09509> #*************************************************************************
09510> R0025: C00258- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09511>          CONTINUOUS STANDHYD    1.0 01: JR-01              8. 24     1. 515 No_date    28:00   53. 47 .719     .000
09512>            [XLM]=. 64: TIM]=. 64]
09513>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09514>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09515>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 234. : MNI=. 013: SCI=    .0]
09516>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09517> R0025: C00259- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09518>          COMPUTE DUALHYD        1.0 01: JR-01              8. 24     1. 515 No_date    28:00   53. 47  n/a      .000
09519>            Major System   /     1.0 02: JR-01-M            .00       .000 No_date    0:00    .00   n/a      .000
09520>            Minor System   \     1.0 03: JR-01-MN           8. 24     .563 No_date      28:50   53. 74  n/a      .000
09521>            [M]SysSto=. 7433E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09522> R0025: C00260- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09523>          ADD HYD                1.0 02: JR-01-M            .00       .000 No_date    0:00    .00   n/a      .000
09524>                           +     1.0 02: JR-01-MN           8. 24     .563 No_date      27:45   53. 74  n/a      .000
09525>                         SUM-    1.0 01: JR-01-S            8. 24     .563 No_date      27:45   53. 74  n/a      .000
09526> R0025: C00261- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09527>          CONTINUOUS STANDHYD    1.0 01: JR-02              1. 59     .316 No_date    28:00   53. 47 .719     .000
09528>            [XLM]=. 64: TIM]=. 64]
09529>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=. 00]
09530>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09531>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 103. : MNI=. 013: SCI=    .0]
09532>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09533> R0025: C00262- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09534>          COMPUTE DUALHYD        1.0 01: JR-02              1. 59     .316 No_date    28:00   53. 47  n/a      .000
09535>            Major System   /     1.0 02: JR-02-M            .00       .000 No_date    0:00    .00   n/a      .000
09536>            Minor System   \     1.0 03: JR-02-MN           1. 59     .153 No_date    27:47   53. 69  n/a      .000
09537>            [M]SysSto=. 9432E+02,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09538> R0025: C00263- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09539>          ADD HYD                1.0 02: JR-02-M            .00       .000 No_date    0:00    .00   n/a      .000
09540>                           +     1.0 02: JR-02-MN           1. 59     .153 No_date      27:47   53. 69  n/a      .000
09541>                         SUM-    1.0 01: JR-02-S            1. 59     .153 No_date      27:47   53. 69  n/a      .000
09542> #*************************************************************************
09543> #   Catchment FRASER
09544> #   - To Fraser-Clarke drain (north of the Jock)
09545> #   - Developed land with assumed 43% imp.
09546> #   - 2020-12-17 Change Fraser area to be 35. 1 as measured from QGIS
09547> #   - 2020-12-17 All Fraser is undeveloped (Nashyd)
09548> #*************************************************************************
09549> R0025: C00264- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09550>          CONTINUOUS NASHYD      1.0 01: FRASER-DRN         13. 65    .594 No_date      28:22   34. 14 . 459    .000
09551>            [CN=  77. 0: N=  3. 00: Tp=   . 43]
09552>            [IaREC=  4. 00: SMN=  31. 15: SMX=207. 66: SK=  . 010]
09553>            [InterEventTime=  12. 00]
09554> R0025: C00265- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09555>          CONTINUOUS NASHYD      1.0 01: FRASER-D           21. 61    .681 No_date      28:40   34. 14 . 459    .000
09556>            [CN=  77. 0: N=  3. 00: Tp=   . 67]
09557>            [IaREC=  4. 00: SMN=  31. 15: SMX=207. 66: SK=  . 010]
09558>            [InterEventTime=  12. 00]
09559> R0025: C00266- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09560>          ADD HYD                1.0 02: KB-Pond3           257. 04   17. 344 No_date   28:10   42. 28  n/a      .000
09561>                           +     1.0 02: SK-1-B             55. 36    2. 311 No_date    28:23   34. 14  n/a      .000
09562>                           +     1.0 02: FRASER-DRN         13. 65    .594 No_date      28:22   34. 14  n/a      .000
09563>                           +     1.0 02: FRASER-D           21. 61    .681 No_date      28:40   34. 14  n/a      .000
09564>                           +     1.0 02: SK-KB              54279. 37 109. 399 No_date   36:10   28. 97  n/a      .000
09565>                           +     1.0 02: FC-01-S            8. 03     .756 No_date      27:53   44. 53  n/a      .000
09566>                           +     1.0 02: FC-02-S            16. 05    1. 159 No_date    27:44   69. 13  n/a      .000
09567>                           +     1.0 02: FC-03-S            7. 37     .358 No_date      27:43   53. 66  n/a      .000
09568>                         SUM-    1.0 01: 4241               54658. 48 110. 084 No_date   36:06   29. 06  n/a      .000
09569> R0025: C00267- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09570>          SAVE HYD               1.0 01: 4241               54658. 48 110. 084 No_date   36:06   29. 06  n/a      .000
09571>            fname: 4241. 0025
09572>            remark: Total Flows at Ken-Burnett Outlet
09573> # Hydrograph from Node Ken-Burnett to station 3633
09574> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
09575> #
09576> R0025: C00268- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09577>          ROUTE CHANNEL  ->      1.0 02: 4241               54658. 48 110. 084 No_date   36:06   29. 06  n/a      .000
09578>            [RDT=  1. 00]  out <-  1. 0 01: 4241-out        54658. 48 110. 145 No_date   36:03   29. 06  n/a      .000
09579>            [LJS/ n=  294. / . 109/ . 035]
09580>            [Vmax=  1. 274: Dmax=  2. 271]
09581> R0025: C00269- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09582>          ADD HYD                1.0 02: 4241-out           54658. 48 110. 145 No_date   36:03   29. 06  n/a      .000
09583>                           +     1.0 02: FC-04-S            12. 87    .741 No_date      27:45   53. 74  n/a      .000
09584>                           +     1.0 02: JR-01-S            8. 24     .563 No_date      27:45   53. 74  n/a      .000
09585>                           +     1.0 02: JR-02-S            1. 59     .153 No_date      27:47   53. 69  n/a      .000
09586>                         SUM-    1.0 01: SN_KB              54681. 18 110. 195 No_date   36:03   29. 07  n/a      .000
09587> R0025: C00270- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09588>          SAVE HYD               1.0 01: SN_KB              54681. 18 110. 195 No_date   36:03   29. 07  n/a      .000
09589>            fname: SN_KB. 0025
09590>            remark: HYD_COMMENT=[ "Total Flows before Station 3633]
09591> # Hydrograph from Station 3633 to Node Todd
09592> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
09593> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0. 0498% to 0. 2
09594> #
09595> R0025: C00271- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09596>          ROUTE CHANNEL  ->      1.0 02: SN_KB              54681. 18 110. 195 No_date   36:03   29. 07  n/a      .000
09597>            [RDT=  1. 00]  out <-  1. 0 01: N_TO            54681. 18 110. 128 No_date   36:07   29. 07  n/a      .000
09598>            [LJS/ n=  608. / . 247/ . 035]
09599>            [Vmax=  1. 714: Dmax=  1. 705]
09600> #*************************************************************************
09601> #   Catchment Greenbank
09602> #   - To Greenbank Drain (south of the Jock)
09603> #   - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
09604> #   - JFSA 2021-01-19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
09605> #*************************************************************************
09606> R0025: C00272- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09607>          CONTINUOUS STANDHYD    1.0 01: Greenbank          36. 60    5. 574 No_date    28:02   58. 33 . 784    .000
09608>            [XLM]=. 64: TIM]=. 68]
09609>            [LOSS=  2 : CN=  77. 0]
09610>            [Pervious       area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09611>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=    .0]
09612>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09613>            [SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
09614> R0025: C00273- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09615>          ROUTE RESERVOIR -> >   1.0 02: Greenbank          36. 60    5. 574 No_date    28:02   58. 33  n/a      .000
09616>                           out <=1.0 01: GreenB_MN          36. 60    3. 118 No_date    28:11   58. 33  n/a      .000
09617>                         overflow <=1.0 03: GreenB_MI       .00       .000 No_date      0:00    .00   n/a      .000
09618>            [MkStoSked=. 8739E+00   m3,  Tot Or f Vol=. 0000E+00   m3,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
09619> R0025: C00274- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09620>          ADD HYD                1.0 02: TODD              54681. 18 110. 128 No_date   36:07   29. 07  n/a      .000
09621>                           +     1.0 02: GreenB_MI          .00       .000 No_date      0:00    .00   n/a      .000
09622>                           +     1.0 02: GreenB_MN          36. 60    3. 118 No_date    28:11   58. 33  n/a      .000
09623>                         SUM-    1.0 01: GreenB             54717. 78 110. 282 No_date   36:07   29. 09  n/a      .000
09624> R0025: C00275- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09625>          SAVE HYD               1.0 01: GreenB             54717. 78 110. 282 No_date   36:07   29. 09  n/a      .000
09626>            fname: GreenB. 0025
09627>            remark: Total Flows at Greenbank Drain
09628> #*************************************************************************
09629> #   Catchment TODD
09630> #   - To Todd Drain (south of the Jock)
09631> #   - Subdivision with 43% imp. as per Barrhaven South MSS
09632> #   - 2020-11-30 increase imp. based on P598(04)-11
09633> #   - 2020-11-30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598(04)-11
09634> #   - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
09635> #*************************************************************************
09636> #   - JFSA 2021-01-19 add "TODD_MN" as part of Clarke( "W_CLAR_M" ) and remove it from Todd
09637> R0025: C00276- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09638>          CONTINUOUS STANDHYD    1.0 01: TODD_MN2           2. 10     .339 No_date      28:00   53. 59 . 720    .000
09639>            [XLM]=. 53: TIM]=. 57]
09640>            [LOSS=  2 : CN=  77. 0]
09641>            [Pervious       area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09642>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=    .0]
09643>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09644>            [SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
09645> R0025: C00277- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09646>          CONTINUOUS STANDHYD    1.0 01: TODD_MN3           . 12      . 020 No_date     28:00   53. 57 . 720    .000
09647>            [XLM]=. 53: TIM]=. 57]
09648>            [LOSS=  2 : CN=  77. 0]
09649>            [Pervious       area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09650>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=    .0]
09651>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09652>            [SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
09653> R0025: C00278- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09654>          CONTINUOUS STANDHYD    1.0 01: TODD_MI            30. 23    4. 269 No_date    28:02   55. 13 . 741    .000
09655>            [XLM]=. 52: TIM]=. 64]
09656>            [LOSS=  2 : CN=  77. 0]
09657>            [Pervious       area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09658>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=    .0]
09659>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09660>            [SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
09661> R0025: C00279- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09662>          CONTINUOUS STANDHYD    1.0 01: TODD_ALL           112. 91   13. 312 No_date   28:05   53. 38 . 718    .000
09663>            [XLM]=. 52: TIM]=. 57]
09664>            [LOSS=  2 : CN=  77. 0]
09665>            [Pervious       area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
09666>            [Impervious     area: IAimp=  1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=    .0]
09667>            [IaRECI mp=   4. 00: IaRECper=   4. 00]
09668>            [SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
09669> R0025: C00280- ------------ DTmin-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
09670>          CONTINUOUS STANDHYD    1.0 01: TODD_P             3. 06     .535 No_date      28:00   57. 01 . 766    .000
09671>            [XLM]=. 63: TIM]=. 63]
09672>            [LOSS=  2 : CN=  77. 0]
09673>            [Pervious       area: IAper=
```

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09725>       ROUTE RESERVOIR -> .     1.0 02: TODD          120.62    14.962 No_date   28: 03    53.48  n/a     .000
09726>                   out <=     1.0 01: MS_P3          120.62     9.717 No_date   28: 14    53.48  n/a     .000
09727>              overflow <=     1.0 03: P3-OVF             .00      .000 No_date    0: 00      .00  n/a     .000
09728>    [MxStOlKed=.2619E+01  m3, TotOrVol=.0000E+00  m3, N-Or/=     0, TotDurOr/=     0.hrs]
09729> R0025: C00289------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09730>       ADD HYD          .  1.0 02: GreenB       54717.78  110.282 No_date   36: 07    29.09  n/a     .000
09731>                       +  1.0 02: MS_P3          120.62     9.717 No_date   28: 14    53.48  n/a     .000
09732>                       +  1.0 02: P3-OVF             .00      .000 No_date    0: 00      .00  n/a     .000
09733>                       +  1.0 02: TODD_MNJ           .04      .067 No_date   28: 00    53.59  n/a     .000
09734>                       +  1.0 02: A2-MI              .00      .000 No_date    0: 00      .00  n/a     .000
09735>                     SUM=  1.0 01: SN_TO       54838.44  110.670 No_date   36: 07    29.14  n/a     .000
09736> R0025: C00290------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09737>       SAVE HYD         .  1.0 01: SN_TO       54838.44  110.670 No_date   36: 07    29.14  n/a     .000
09738>           fname : SN_TO 0025
09739>           remrk: Total Flows at Todd Drain
09740> #
09741> # Hydrograph from Todd Drain routed to Corrigan Drain
09742> # Channel X-Section obtained from HECA Hydraulic Model - Station 2462
09743> # 2021-02-19 Change the slope from 0.033 %(as per Stantec Report 2007) to 0.05 % so the model will be more stable and g
09744> R0025: C00291------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09745>       ROUTE CHANNEL    .  1.0 02: SN_TO       54838.44  110.670 No_date   36: 07    29.14  n/a     .000
09746>  *  [RDT=  1.00] out <-     1.0 01: N_TO       54838.44  110.461 No_date   36: 21    29.14  n/a     .000
09747>           [L/S/n=  280. /  .050/.045]
09748>           [Vmx=   905: Dmx=x  3.255]
09749> R0025: C00292------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09750>       SAVE HYD         .  1.0 01: N_TO       54838.44  110.461 No_date   36: 21    29.14  n/a     .000
09751>           fname : N_TO 0025
09752>           remrk: Total inflows at Station 2462
09753> #*************************************************************************
09754> #    Catchment CORRIG
09755> #    - To Corrigan Drain (south of the Jock)
09756> #    - Primarily Developed (medium density)
09757> #    - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
09758> #*************************************************************************
09759> R0025: C00293------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09760>       CONTINUOUS STANDHYD  1.0 01: corr1      15.87     2.535 No_date   28: 01    57.01  .766     .000
09761>           [XI/M=.  63: TI/M=.  63]
09762>           [LOSS=  2 : CN=  77.0]
09763>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09764>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  325. : MNI=. 013: SCI=    .0]
09765>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09766>           [SMN=  31. 15: SMX=207. 66: SK=  .010]
09767> R0025: C00294------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09768>       COMPUTE DUALHYD  .  1.0 01: corr1      15.87     2.535 No_date   28: 01    57.01  n/a     .000
09769>           Major System   /  1.0 02: corr1-MI        .00      .000 No_date    0: 00      .00  n/a     .000
09770>           Minor System   \  1.0 03: corr1-MN      15.87     1.818 No_date   28: 15    57.37  n/a     .000
09771>           [MjSysSto=.3150E+03,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09772> R0025: C00295------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09773>       CONTINUOUS NASHYD   1.0 01: corr2      12.47      .276 No_date   29: 10    34.14  .459     .000
09774>           [CN=  77.0: N=  3.00: Tp=  1.10]
09775>           [IaREC=  4. 00: SMN=  31. 15: SMX=207. 66: SK=  .010]
09776>           [InterEventTime=  12. 00]
09777> R0025: C00296------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09778>       CONTINUOUS STANDHYD  1.0 01: Al-Corrig    15.75     2.022 No_date   28: 01    49.44  .665     .000
09779>           [XI/M=. 42: TI/M=. 52]
09780>           [LOSS=  2 : CN=  75.0]
09781>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09782>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  324. : MNI=. 013: SCI=    .0]
09783>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09784>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
09785> R0025: C00297------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09786>       COMPUTE DUALHYD  .  1.0 01: Al-Corrig    15.75     2.022 No_date   28: 01    49.44  n/a     .000
09787>           Major System   /  1.0 02: Al-MI          .00      .000 No_date    0: 00      .00  n/a     .000
09788>           Minor System   \  1.0 03: Al-MN        15.75     1.818 No_date   27: 58    49.57  n/a     .000
09789>           [MjSysSto=. 4966E+02,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09790> R0025: C00298------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09791>       CONTINUOUS NASHYD   1.0 01: BI            2.77      .097 No_date   28: 09    21.19  .285     .000
09792>           [CN=  56.0: N=  3.00: Tp=   .23]
09793>           [IaREC=  4. 00: SMN=  79. 69: SMX=531. 24: SK=  .010]
09794>           [InterEventTime=  12. 00]
09795> R0025: C00299------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09796>       CONTINUOUS STANDHYD  1.0 01: Al          1.27      .212 No_date   28: 01    57.38  .771     .000
09797>           [XI/M=. 65: TI/M=. 65]
09798>           [LOSS=  2 : CN=  75.0]
09799>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09800>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  253. : MNI=. 013: SCI=    .0]
09801>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09802>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
09803> R0025: C00300------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09804>       COMPUTE DUALHYD  .  1.0 01: Al          1.27      .212 No_date   28: 01    57.38  n/a     .000
09805>           Major System   /  1.0 02: Al-MI          .00      .000 No_date    0: 00      .00  n/a     .000
09806>           Minor System   \  1.0 03: Al-MN        1.27      .212 No_date   28: 01    57.38  n/a     .000
09807>           [MjSysSto=.0000E+00,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09808> R0025: C00301------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09809>       ADD HYD          .  1.0 02: Al-MI             .00      .000 No_date    0: 00      .00  n/a     .000
09810>                       +  1.0 02: Al-MN          15.75     1.818 No_date   27: 58    49.57  n/a     .000
09811>                       +  1.0 02: corr1-MI          .00      .000 No_date    0: 00      .00  n/a     .000
09812>                       +  1.0 02: corr1-MN       15.87     1.818 No_date   28: 15    57.37  n/a     .000
09813>                       +  1.0 02: corr2          12.47      .276 No_date   29: 10    34.14  .459     .000
09814>                       +  1.0 02: BI              2.77      .097 No_date   28: 09    21.19  n/a     .000
09815>                       +  1.0 02: A4-MN           1.27      .212 No_date   28: 01    57.38  n/a     .000
09816>                     SUM=  1.0 01: MH01        48.13     3.979 No_date   28: 02    46.72  n/a     .000
09817> R0025: C00302------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09818>       SAVE HYD         .  1.0 01: MH01        48.13     3.979 No_date   28: 02    46.72  n/a     .000
09819>           fname : MH01 0025
09820>           remrk: Total Flows at MH01
09821> R0025: C00303------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09822>       ROUTE PIPE       ->  1.0 02: MH01        48.13     3.979 No_date   28: 02    46.72  n/a     .000
09823>  *  [RDT=  1.00] out <-     1.0 01: 101-102     48.13     3.953 No_date   28: 05    46.72  n/a     .000
09824>           [L/S/n=  368. /  .540/.013]
09825>           [Vmx=  3.134: Dmx=x  1.114]
09826>           [Dia=  1. 05: Dused=  1. 36]
09827> R0025: C00304------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09828>       ADD HYD          .  1.0 02: A2-MI          25.50     1.818 No_date   27: 54    49.64  n/a     .000
09829>                       +  1.0 02: 101-102        48.13     3.953 No_date   28: 05    46.72  n/a     .000
09830>                     SUM=  1.0 01: MH02        73.63     5.771 No_date   28: 05    47.73  n/a     .000
09831> R0025: C00305------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09832>       SAVE HYD         .  1.0 01: MH02        73.63     5.771 No_date   28: 05    47.73  n/a     .000
09833>           fname : MH02 0025
09834>           remrk: Total Flows at MH02
09835> R0025: C00306------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09836>       CONTINUOUS STANDHYD  1.0 01: AS          1.60      .279 No_date   28: 01    60.02  .807     .000
09837>           [XI/M=. 71: TI/M=. 71]
09838>           [LOSS=  2 : CN=  75.0]
09839>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09840>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  300. : MNI=. 013: SCI=    .0]
09841>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09842>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
09843> R0025: C00307------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09844>       ADD HYD          .  1.0 02: A4-MI             .00      .000 No_date    0: 00      .00  n/a     .000
09845>                       +  1.0 02: AS             1.60      .279 No_date   28: 01    60.02  n/a     .000
09846>                     SUM=  1.0 01: AST           1.60      .279 No_date   28: 01    60.02  n/a     .000
09847> R0025: C00308------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09848>       COMPUTE DUALHYD  .  1.0 01: AST           1.60      .279 No_date   28: 01    60.02  n/a     .000
09849>           Major System   /  1.0 02: AS-MI           .00      .000 No_date    0: 00      .00  n/a     .000
09850>           Minor System   \  1.0 03: AS-MN         1.60      .279 No_date   28: 01    60.02  n/a     .000
09851>           [MjSysSto=.0000E+00,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09852> R0025: C00309------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09853>       ROUTE PIPE       ->  1.0 02: MH02        73.63     5.771 No_date   28: 05    47.73  n/a     .000
09854>  *  [RDT=  1.00] out <-     1.0 01: 102-103     73.63     5.682 No_date   28: 08    47.73  n/a     .000
09855>           [L/S/n=  504. /  .280/.013]
09856>           [Vmx=  2. 688: Dmx=x  1. 448]
09857>           [Dia=  1. 50: Dused=  1. 76]
09858> R0025: C00310------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09859>       ADD HYD          .  1.0 02: 102-103        73.63     5.682 No_date   28: 08    47.73  n/a     .000
09860>                       +  1.0 02: AS-MN           1.60      .279 No_date   28: 01    60.02  n/a     .000
09861>                     SUM=  1.0 01: MH03        75.23     5.850 No_date   28: 06    47.99  n/a     .000
09862> R0025: C00311------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09863>       SAVE HYD         .  1.0 01: MH03        75.23     5.850 No_date   28: 06    47.99  n/a     .000
09864>           fname : MH03 0025
09865>           remrk: Total Flows at MH03
09866> R0025: C00312------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09867>       ROUTE PIPE       ->  1.0 02: MH03        75.23     5.850 No_date   28: 06    47.99  n/a     .000
09868>           [RDT=  1.00] out <-     1.0 01: 103-104     75.23     5.807 No_date   28: 08    47.99  n/a     .000
09869>           [L/S/n=  438. /  .460/.013]
09870>           [Vmx=  3. 289: Dmx=x  1. 290]
09871>           [Dia=  1. 65: Dused=  1. 65]
09872> R0025: C00313------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09873>       CONTINUOUS STANDHYD  1.0 01: A6          1.56      .274 No_date   28: 00    60.02  .807     .000
09874>           [XI/M=. 71: TI/M=. 71]
09875>           [LOSS=  2 : CN=  75.0]
09876>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09877>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  280. : MNI=. 013: SCI=    .0]
09878>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09879>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
09880> R0025: C00314------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09881>       ADD HYD          .  1.0 02: AS-MI             .00      .000 No_date    0: 00      .00  n/a     .000
09882>                       +  1.0 02: A6             1.56      .274 No_date   28: 00    60.02  n/a     .000
09883>                     SUM=  1.0 01: A6T           1.56      .274 No_date   28: 00    60.02  n/a     .000
09884> R0025: C00315------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09885>       COMPUTE DUALHYD  .  1.0 01: A6T           1.56      .274 No_date   28: 00    60.02  n/a     .000
09886>           Major System   /  1.0 02: A6-MI           .00      .000 No_date    0: 00      .00  n/a     .000
09887>           Minor System   \  1.0 03: A6-MN         1.56      .274 No_date   28: 00    60.02  n/a     .000
09888>           [MjSysSto=.0000E+00,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09889> R0025: C00316------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09890>       ADD HYD          .  1.0 02: A6-MN          1.56      .274 No_date   28: 00    60.02  n/a     .000
09891>                       +  1.0 02: 103-104        75.23     5.807 No_date   28: 08    47.99  n/a     .000
09892>                       +  1.0 02: TODD_Mn        29.48     3.314 No_date   27: 57    55.13  n/a     .000
09893>                     SUM=  1.0 01: MH04       106.27     9.269 No_date   28: 06    50.14  n/a     .000
09894> R0025: C00317------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09895>       SAVE HYD         .  1.0 01: MH04       106.27     9.269 No_date   28: 06    50.14  n/a     .000
09896>           fname : MH04 0025
09897>           remrk: Total Flows at MH04
09898> R0025: C00318------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09899>       CONTINUOUS STANDHYD  1.0 01: B2          12.31     1.521 No_date   28: 02    49.75  .669     .000
09900>           [XI/M=. 41: TI/M=. 54]
09901>           [LOSS=  2 : CN=  75.0]
09902>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09903>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  417. : MNI=. 013: SCI=    .0]
09904>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09905>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
09906> R0025: C00319------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09907>       COMPUTE DUALHYD  .  1.0 01: B2          12.31     1.521 No_date   28: 02    49.75  n/a     .000
09908>           Major System   /  1.0 02: B2-MI          .00      .000 No_date    0: 00      .00  n/a     .000
09909>           Minor System   \  1.0 03: B2-MN        12.31     1.029 No_date   27: 55    49.85  n/a     .000
09910>           [MjSysSto=. 2691E+03,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09911> R0025: C00320------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09912>       ROUTE PIPE       ->  1.0 02: B2-MN        12.31     1.029 No_date   27: 55    49.85  n/a     .000
09913>  *  [RDT=  1.00] out <-     1.0 01: 315-333     12.31     1.029 No_date   28: 24    49.85  n/a     .000
09914>           [L/S/n=  254. /  .100/.013]
09915>           [Vmx=  1. 220: Dmx=x  .838]
09916>           [Dia=  1. 20: Dused=  1. 20]
09917> R0025: C00321------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09918>       CONTINUOUS STANDHYD  1.0 01: B3          5.59      .715 No_date   28: 02    49.75  .669     .000
09919>           [XI/M=. 41: TI/M=. 54]
09920>           [LOSS=  2 : CN=  75.0]
09921>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09922>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  345. : MNI=. 013: SCI=    .0]
09923>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09924>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
09925> R0025: C00322------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09926>       COMPUTE DUALHYD  .  1.0 01: B3          5.59      .715 No_date   28: 02    49.75  n/a     .000
09927>           Major System   /  1.0 02: B3-MI          .00      .000 No_date    0: 00      .00  n/a     .000
09928>           Minor System   \  1.0 03: B3-MN        5.59      .459 No_date   27: 54    49.80  n/a     .000
09929>           [MjSysSto=. 1451E+03,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09930> R0025: C00323------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09931>       ADD HYD          .  1.0 02: B3-MN          5.59      .459 No_date   27: 54    49.80  n/a     .000
09932>                       +  1.0 02: 315-333        12.31     1.029 No_date   28: 24    49.85  n/a     .000
09933>                     SUM=  1.0 01: MH33        17.90     1.488 No_date   28: 24    49.83  n/a     .000
09934> R0025: C00324------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09935>       SAVE HYD         .  1.0 01: MH33        17.90     1.488 No_date   28: 24    49.83  n/a     .000
09936>           fname : MH33 0025
09937>           remrk: Total Flows at MH33
09938> R0025: C00325------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09939>       ROUTE PIPE       ->  1.0 02: MH33        17.90     1.488 No_date   28: 24    49.83  n/a     .000
09940>  *  [RDT=  1.00] out <-     1.0 01: 333-335     17.90     1.485 No_date   28: 24    49.83  n/a     .000
09941>           [L/S/n=  251. /  .100/.013]
09942>           [Vmx=  1. 302: Dmx=x  1. 057]
09943>           [Dia=  1. 20: Dused=  1. 29]
09944> R0025: C00326------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09945>       ROUTE PIPE       ->  1.0 02: 333-335       17.90     1.485 No_date   28: 24    49.83  n/a     .000
09946>  *  [RDT=  1.00] out <-     1.0 01: 335-338     17.90     1.490 No_date   28: 26    49.83  n/a     .000
09947>           [L/S/n=  185. /  .100/.013]
09948>           [Vmx=  1. 301: Dmx=x  1. 056]
09949>           [Dia=  1. 20: Dused=  1. 29]
09950> R0025: C00327------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09951>       ROUTE PIPE       ->  1.0 02: 335-338       17.90     1.490 No_date   28: 26    49.83  n/a     .000
09952>           [RDT=  1.00] out <-     1.0 01: 338-340     17.90     1.456 No_date   28: 26    49.83  n/a     .000
09953>           [L/S/n=  233. /  .100/.013]
09954>           [Vmx=  1. 331: Dmx=x  .985]
09955>           [Dia=  1. 35: Dused=  1. 35]
09956> R0025: C00328------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09957>       CONTINUOUS STANDHYD  1.0 01: B4          7.60      .960 No_date   28: 02    49.75  .669     .000
09958>           [XI/M=. 41: TI/M=. 54]
09959>           [LOSS=  2 : CN=  75.0]
09960>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09961>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  388. : MNI=. 013: SCI=    .0]
09962>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
09963>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
09964> R0025: C00329------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09965>       COMPUTE DUALHYD  .  1.0 01: B4          7.60      .960 No_date   28: 02    49.75  n/a     .000
09966>           Major System   /  1.0 02: B4-MI          .00      .000 No_date    0: 00      .00  n/a     .000
09967>           Minor System   \  1.0 03: B4-MN        7.60      .655 No_date   27: 55    50.00  n/a     .000
09968>           [MjSysSto=. 1611E+03,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
09969> R0025: C00330------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09970>       ADD HYD          .  1.0 02: 338-340        17.90     1.456 No_date   28: 26    49.83  n/a     .000
09971>                       +  1.0 02: B4-MN           7.60      .655 No_date   27: 55    50.00  n/a     .000
09972>                     SUM=  1.0 01: MH40        25.50     2.104 No_date   28: 18    49.88  n/a     .000
09973> R0025: C00331------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09974>       SAVE HYD         .  1.0 01: MH40        25.50     2.104 No_date   28: 18    49.88  n/a     .000
09975>           fname : MH40 0025
09976>           remrk: Total Flows at MH40
09977> R0025: C00332------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09978>       ROUTE PIPE       ->  1.0 02: MH40        25.50     2.104 No_date   28: 18    49.88  n/a     .000
09979>           [RDT=  1.00] out <-     1.0 01: 340-104     25.50     2.086 No_date   28: 18    49.88  n/a     .000
09980>           [L/S/n=  240. /  .150/.013]
09981>           [Vmx=  1. 722: Dmx=x  .917]
09982>           [Dia=  1. 65: Dused=  1. 65]
09983> R0025: C00333------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09984>       ADD HYD          .  1.0 02: 340-104        25.50     2.086 No_date   28: 18    49.88  n/a     .000
09985>                       +  1.0 02: MH04          106.27     9.269 No_date   28: 06    50.14  n/a     .000
09986>                     SUM=  1.0 01: MH04T       131.77    11.233 No_date   28: 08    50.09  n/a     .000
09987> R0025: C00334------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09988>       ROUTE PIPE       ->  1.0 02: MH04T       131.77    11.233 No_date   28: 08    50.09  n/a     .000
09989>  *  [RDT=  1.00] out <-     1.0 01: 104-105     131.77    10.846 No_date   28: 08    50.09  n/a     .000
09990>           [L/S/n=  380. /  .100/.013]
09991>           [Vmx=  2. 100: Dmx=x  1. 992]
09992>           [HGT=  2. 35: WDT=  2. 68]
09993> R0025: C00335------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
09994>       CONTINUOUS STANDHYD  1.0 01: BS          2.20      .346 No_date   28: 00    53.85  .724     .000
09995>           [XI/M=. 57: TI/M=. 57]
09996>           [LOSS=  2 : CN=  75.0]
09997>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
09998>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  187. : MNI=. 013: SCI=    .0]
09999>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
10000>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
10001> R0025: C00336------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10002>       COMPUTE DUALHYD  .  1.0 01: BS          2.20      .346 No_date   28: 00    53.85  n/a     .000
10003>           Major System   /  1.0 02: BS-MI          .00      .000 No_date    0: 00      .00  n/a     .000
10004>           Minor System   \  1.0 03: BS-MN        2.20      .260 No_date   27: 54    53.87  n/a     .000
10005>           [MjSysSto=. 3304E+02,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
10006> R0025: C00337------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10007>       CONTINUOUS STANDHYD  1.0 01: AS           .96      .177 No_date   28: 00    60.02  .807     .000
10008>           [XI/M=. 71: TI/M=. 71]
10009>           [LOSS=  2 : CN=  75.0]
10010>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10011>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  186. : MNI=. 013: SCI=    .0]
10012>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
10013>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
10014> R0025: C00338------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10015>       ADD HYD          .  1.0 02: A6-MI             .00      .000 No_date    0: 00      .00  n/a     .000
10016>                       +  1.0 02: AS              .96      .177 No_date   28: 00    60.02  n/a     .000
10017>                     SUM=  1.0 01: AST            .96      .177 No_date   28: 00    60.02  n/a     .000
10018> R0025: C00339------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10019>       COMPUTE DUALHYD  .  1.0 01: AST            .96      .177 No_date   28: 00    60.02  n/a     .000
10020>           Major System   /  1.0 02: AS-MI           .00      .000 No_date    0: 00      .00  n/a     .000
10021>           Minor System   \  1.0 03: AS-MN         .96      .177 No_date   28: 00    60.02  n/a     .000
10022>           [MjSysSto=.0000E+00,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
10023> R0025: C00340------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10024>       ADD HYD          .  1.0 02: 104-105        131.77    10.846 No_date   28: 08    50.09  n/a     .000
10025>                       +  1.0 02: BS-MN           2.20      .260 No_date   27: 54    53.87  n/a     .000
10026>                       +  1.0 02: AS-MN             .96      .177 No_date   28: 00    60.02  n/a     .000
10027>                       +  1.0 02: TODD_MNJ          .00      .004 No_date   28: 00    53.58  n/a     .000
10028>                     SUM=  1.0 01: MH05        134.93    11.175 No_date   28: 08    50.23  n/a     .000
10029> R0025: C00341------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10030>       SAVE HYD         .  1.0 01: MH05        134.93    11.175 No_date   28: 08    50.23  n/a     .000
10031>           fname : MH05 0025
10032>           remrk: Total Flows at MH05
10033> R0025: C00342------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10034>  *  DIVERT HYD       ->     1.0 01: AS-MI             .00      .000 No_date    0: 00      .00  n/a     .000
10035>                  diverted <=     1.0 02: AS-MI-JR          .00      .000 No_date    0: 00      .00  n/a     .000
10036>                  diverted <=     1.0 02: AS-MI-B6          .00      .000 No_date    0: 00      .00  n/a     .000
10037> R0025: C00343------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10038>       DIVERT HYD       ->     1.0 01: MH05        134.93    11.175 No_date   28: 08    50.23  n/a     .000
10039>                  diverted <=     1.0 02: MH05-JR           33.95     8.167 No_date   28: 08    50.23  n/a     .000
10040>                  diverted <=     1.0 03: MH05-B6          100.98     3.008 No_date   28: 08    50.23  n/a     .000
10041> R0025: C00344------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10042>       CONTINUOUS STANDHYD  1.0 01: B7          7.19      .975 No_date   28: 01    49.75  .669     .000
10043>           [XI/M=. 41: TI/M=. 54]
10044>           [LOSS=  2 : CN=  75.0]
10045>           [Pervious      area: IAper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10046>           [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI=  211. : MNI=. 013: SCI=    .0]
10047>           [IaRECImp=   4. 00: IaRECPer=   4. 00]
10048>           [SMN=  33. 81: SMX=225. 43: SK=  .010]
10049> R0025: C00345------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10050>       ADD HYD          .  1.0 02: B4-MI             .00      .000 No_date    0: 00      .00  n/a     .000
10051>                       +  1.0 02: B7             7.19      .975 No_date   28: 01    49.75  n/a     .000
10052>                     SUM=  1.0 01: B7-B4MI       7.19      .975 No_date   28: 01    49.75  n/a     .000
10053> R0025: C00346------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10054>       COMPUTE DUALHYD  .  1.0 01: B7-B4MI       7.19      .975 No_date   28: 01    49.75  n/a     .000
10055>           Major System   /  1.0 02: B7R-MI          .00      .000 No_date    0: 00      .00  n/a     .000
10056>           Minor System   \  1.0 03: B7R-MN        7.19      .629 No_date   27: 53    50.01  n/a     .000
10057>           [MjSysSto=. 1702E+03,  TotOrVol=.0000E+00,  N-Or/=     0,  TotDurOr/=     0.hrs]
10058> R0025: C00347------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10059>       ROUTE PIPE       ->  1.0 02: B7R-MN        7.19      .629 No_date   27: 53    50.01  n/a     .000
10060>  *  [RDT=  1.00] out <-     1.0 01: 360-106A     7.19      .629 No_date   28: 21    50.01  n/a     .000
10061>           [L/S/n=  167. /  .100/.013]
10062>           [Vmx=  1. 089: Dmx=x  .665]
10063>           [Dia=  1. 05: Dused=  1. 05]
10064> R0025: C00348------------DTmin-1-D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10065>       CONTINUOUS STANDHYD  1.0 01: B6          3.29      .465 No_date   28: 00    49.75  .669     .000
10066>           [XI/M=. 41: TI/M=. 54]
10067>           [LOSS=  2 : CN=  75.0]
10068>           [Pervious      area: IAper=  4
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10099>      COMPUTE DUALHYD          1.0 01: B6- B7ExMI        3.29      .064 No_date    27:34   49.75  n/a      .000
10100>        Major System   /       1.0 02: B6-R- MI          .00      .000 No_date     0:00     .00  n/a      .000
10101>        Minor System   \       1.0 03: B6-R- MN         3.29      .064 No_date    27:34   49.75  n/a      .000
10102>        [MjSysSto=.0000E+00,  Tot Or Vol=.0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
10103> R0025: C00354-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10104>      ROUTE PIPE               1.0 02: MH105- B6        100.98     3.008 No_date    28:08   50.23  n/a      .000
10105>      [RDT= 1.00]  out <-      1.0 01: 105- 106A        100.98     3.018 No_date    28:02   50.23  n/a      .000
10106>        [L/S/ n=  208. /  .100/. 013]
10107>        [Vmax= 1. 597: Dmax= 1. 249]
10108>        [Din= 1. 80: Dused= 1. 80]
10109> R0025: C00355-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10110>      ADD HYD                  1.0 02: 360- 106A          7.19      .629 No_date    28:21   50.01  n/a      .000
10111>                             +  1.0 02: 105- 106A       100.98     3.018 No_date    28:02   50.23  n/a      .000
10112>                             +  1.0 02: B6-R- MN          3.29      .064 No_date    27:34   49.75  n/a      .000
10113>                             =  1.0 03: B6-R- MI          .00      .000 No_date     0:00     .00  n/a      .000
10114>                      SUM=      1.0 01: MH106A         111.46     3.702 No_date    28:02   50.20  n/a      .000
10115> R0025: C00356-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10116>      SAVE HYD                 1.0 01: MH106A         111.46     3.702 No_date    28:02   50.20  n/a      .000
10117>        fname : MH106A 0025
10118>        remark: Total Flows at MH106A
10119> R0025: C00357-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10120>      ROUTE PIPE               ->       1.0 02: MH106A     111.46     3.702 No_date    28:02   50.20  n/a      .000
10121> *    [RDT= 1.00]  out <-      1.0 01: 106A- 106        111.46     3.699 No_date    28:16   50.20  n/a      .000
10122>        [L/S/ n=  190. /  .100/. 013]
10123>        [Vmax= 1. 635: Dmax= 1. 487]
10124>        [Din= 1. 80: Dused= 1. 81]
10125> R0025: C00358-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10126>      CONTI NUOUS STANDHYD     1.0 01: A9                 2.44      .433 No_date    28:00   60.02  .807     .000
10127>        [XI M%= 71: TI MP=. 71]
10128>        [LOSS= 2 : CN= 75. 0]
10129>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10130>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 262. : MNI =. 013: SCI =    .0]
10131>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10132>        [SMN= 33. 81:  SMX%= 225. 43:  SK= . 010]
10133> R0025: C00359-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10134>      COMPUTE DUALHYD          1.0 01: A9                 2.44      .433 No_date    28:00   60.02  n/a      .000
10135>        Major System   /       1.0 02: A9- MI             .00      .000 No_date     0:00     .00  n/a      .000
10136>        Minor System   \       1.0 03: A9- MN            2.44      .433 No_date    28:00   60.02  n/a      .000
10137> R0025: C00360-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10138>      ADD HYD                  1.0 02: 106A- 106        111.46     3.699 No_date    28:16   50.20  n/a      .000
10139>                             +  1.0 02: A9- MN           2.44      .433 No_date    28:00   60.02  n/a      .000
10140>                      SUM=      1.0 01: MH106          113.90     4.090 No_date    28:01   50.41  n/a      .000
10141> R0025: C00361-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10142>      SAVE HYD                 1.0 01: MH106          113.90     4.090 No_date    28:01   50.41  n/a      .000
10143>        fname : MH106. 0025
10144>        remark: Total Flows at MH106
10145> R0025: C00362-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10146>      ROUTE PIPE               ->       1.0 02: MH106      113.90     4.090 No_date    28:01   50.41  n/a      .000
10147> *    [RDT= 1.00]  out <-      1.0 01: 106- 107         113.90     4.067 No_date    28:03   50.41  n/a      .000
10148>        [L/S/ n=  123. /  .100/. 013]
10149>        [Vmax= 1. 676: Dmax= 1. 544]
10150>        [Din= 1. 80: Dused= 1. 88]
10151> R0025: C00363-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10152>      CONTI NUOUS STANDHYD     1.0 01: A10                4.14      .526 No_date    28:01   46.81  .629     .000
10153>        [XI M%= 35: TI MP=. 47]
10154>        [LOSS= 2 : CN= 75. 0]
10155>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10156>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 183. : MNI =. 013: SCI =    .0]
10157>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10158>        [SMN= 33. 81:  SMX%= 225. 43:  SK= . 010]
10159> R0025: C00364-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10160>      COMPUTE DUALHYD          1.0 01: A10                4.14      .526 No_date    28:01   46.81  n/a      .000
10161>        Major System   /       1.0 02: A10- MI            .00      .000 No_date     0:00     .00  n/a      .000
10162>        Minor System   \       1.0 03: A10- MN           4.14      .310 No_date    27:52   46.90  n/a      .000
10163>        [MjSysSto=. 1196E+03,  Tot Or Vol=.0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
10164> R0025: C00365-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10165>      CONTI NUOUS STANDHYD     1.0 01: A11               10.61     1.511 No_date    28:01   54.09  .727     .000
10166>        [XI M%= 53: TI MP=. 62]
10167>        [LOSS= 2 : CN= 75. 0]
10168>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10169>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 379. : MNI =. 013: SCI =    .0]
10170>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10171>        [SMN= 33. 81:  SMX%= 225. 43:  SK= . 010]
10172> R0025: C00366-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10173>      COMPUTE DUALHYD          1.0 01: A11               10.61     1.511 No_date    28:01   54.09  n/a      .000
10174>        Major System   /       1.0 02: A11- MI            .00      .000 No_date     0:00     .00  n/a      .000
10175>        Minor System   \       1.0 03: A11- MN           10.61      .993 No_date    27:54   54.21  n/a      .000
10176>        [MjSysSto=. 2791E+03,  Tot Or Vol=.0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
10177> R0025: C00367-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10178>      ADD HYD                  1.0 02: 106- 107         113.90     4.067 No_date    28:03   50.41  n/a      .000
10179>                             +  1.0 02: A10- MN          4.14      .310 No_date    27:52   46.90  n/a      .000
10180>                             +  1.0 02: A11- MN         10.61      .993 No_date    27:54   54.21  n/a      .000
10181>                      SUM=      1.0 01: MH107          128.65     5.370 No_date    28:03   50.61  n/a      .000
10182> R0025: C00368-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10183>      SAVE HYD                 1.0 01: MH107          128.65     5.370 No_date    28:03   50.61  n/a      .000
10184>        fname : MH107. 0025
10185>        remark: Total Flows at MH107
10186> R0025: C00369-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10187>      ROUTE PIPE               ->       1.0 02: A12        128.65     5.370 No_date    28:03   50.61  n/a      .000
10188> *    [RDT= 1.00]  out <-      1.0 01: 107- 119         128.65     5.374 No_date    28:04   50.61  n/a      .000
10189>        [L/S/ n=  114. /  .120/. 013]
10190>        [Vmax= 1. 922: Dmax= 1. 653]
10191>        [Din= 1. 80: Dused= 2. 01]
10192> R0025: C00370-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10193>      ROUTE PIPE               ->       1.0 02: 107- 119   128.65     5.374 No_date    28:04   50.61  n/a      .000
10194> *    [RDT= 1.00]  out <-      1.0 01: 119- 108         128.65     5.354 No_date    28:04   50.61  n/a      .000
10195>        [L/S/ n=   66. /  .120/. 013]
10196>        [Vmax= 1. 922: Dmax= 1. 653]
10197>        [Din= 1. 80: Dused= 2. 01]
10198> R0025: C00371-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10199>      CONTI NUOUS STANDHYD     1.0 01: A12               12.29     1.704 No_date    28:01   49.75  .669     .000
10200>        [XI M%= 41: TI MP=. 54]
10201>        [LOSS= 2 : CN= 75. 0]
10202>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10203>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 183. : MNI =. 013: SCI =    .0]
10204>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10205>        [SMN= 33. 81:  SMX%= 225. 43:  SK= . 010]
10206> R0025: C00372-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10207>      COMPUTE DUALHYD          1.0 01: A12               12.29     1.704 No_date    28:01   49.75  n/a      .000
10208>        Major System   /       1.0 02: A12- MI            .00      .000 No_date     0:00     .00  n/a      .000
10209>        Minor System   \       1.0 03: A12- MN           12.29     1.029 No_date    27:52   49.91  n/a      .000
10210>        [MjSysSto=. 3558E+03,  Tot Or Vol=.0000E+00,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
10211> R0025: C00373-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10212>      CONTI NUOUS STANDHYD     1.0 01: A13                2.59      .435 No_date    28:01   60.02  .807     .000
10213>        [XI M%= 71: TI MP=. 71]
10214>        [LOSS= 2 : CN= 75. 0]
10215>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10216>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 379. : MNI =. 013: SCI =    .0]
10217>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10218>        [SMN= 33. 81:  SMX%= 225. 43:  SK= . 010]
10219> R0025: C00374-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10220>      COMPUTE DUALHYD          1.0 01: A13                2.59      .435 No_date    28:01   60.02  n/a      .000
10221>        Major System   /       1.0 02: A13- MI            .00      .000 No_date     0:00     .00  n/a      .000
10222>        Minor System   \       1.0 03: A13- MN           2.59      .435 No_date    28:01   60.02  n/a      .000
10223> R0025: C00375-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10224>      CONTI NUOUS STANDHYD     1.0 01: Pond- Block        2.94      .375 No_date    28:00   47.01  .632     .000
10225>        [XI M%= 41: TI MP=. 41]
10226>        [LOSS= 2 : CN= 75. 0]
10227>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10228>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 183. : MNI =. 013: SCI =    .0]
10229>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10230>        [SMN= 33. 81:  SMX%= 225. 43:  SK= . 010]
10231> R0025: C00376-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10232>      ADD HYD                  1.0 02: 119- 108         128.65     5.354 No_date    28:04   50.61  n/a      .000
10233>                             +  1.0 02: A13- MN          2.59      .435 No_date    28:01   60.02  n/a      .000
10234>                             +  1.0 02: A12- MN         12.29     1.029 No_date    27:52   49.91  n/a      .000
10235>                      SUM=      1.0 01: MH108          143.53     6.791 No_date    28:03   50.72  n/a      .000
10236> R0025: C00377-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10237>      SAVE HYD                 1.0 01: MH108          143.53     6.791 No_date    28:03   50.72  n/a      .000
10238>        fname : MH108. 0025
10239>        remark: Total Flows at MH108
10240> R0025: C00378-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10241>      ROUTE PIPE               ->       1.0 02: MH108      143.53     6.791 No_date    28:03   50.72  n/a      .000
10242> *    [RDT= 1.00]  out <-      1.0 01: 108- 116         143.53     6.772 No_date    28:04   50.72  n/a      .000
10243>        [L/S/ n=   77. /  .130/. 013]
10244>        [Vmax= 2. 100: Dmax= 1. 778]
10245>        [Din= 1. 80: Dused= 2. 17]
10246> R0025: C00379-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10247>      ROUTE PIPE               ->       1.0 02: 108- 116   143.53     6.772 No_date    28:04   50.72  n/a      .000
10248> *    [RDT= 1.00]  out <-      1.0 01: 116- corrig      143.53     6.762 No_date    28:05   50.72  n/a      .000
10249>        [L/S/ n=   80. /  .130/. 013]
10250>        [Vmax= 2. 098: Dmax= 1. 776]
10251>        [Din= 1. 80: Dused= 2. 16]
10252> R0025: C00380-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10253>      ADD HYD                  1.0 02: 116- corrig      143.53     6.762 No_date    28:05   50.72  n/a      .000
10254>                             +  1.0 02: Pond- Block       2.94      .375 No_date    28:00   47.01  n/a      .000
10255>                      SUM=      1.0 01: Corrigan         146.47     7.034 No_date    28:04   50.65  n/a      .000
10256> R0025: C00381-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10257>      SAVE HYD                 1.0 01: Corrigan         146.47     7.034 No_date    28:04   50.65  n/a      .000
10258>        fname : Corrigan. 0025
10259>        remark: HYD_COMMENT=[" Total Flows at Corrigan Pond]
10260> R0025: C00382-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10261>      ROUTE RESERVOIR          ->       1.0 02: Corrigan   146.47     7.034 No_date    28:04   50.65  n/a      .000
10262>                 out <=       1.0 01: Co- P            146.47     6.458 No_date    28:16   50.64  n/a      .000
10263>              overflow <=     1.0 03: Co- P- OVF          .00      .000 No_date     0:00     .00  n/a      .000
10264>        [MkStoSto=. 1034E+01  m3,  Tot Or Vol=. 0000E+00  m3,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
10265> R0025: C00383-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10266>      ADD HYD                  1.0 02: Co- P- OVF          .00      .000 No_date     0:00     .00  n/a      .000
10267>                             +  1.0 02: Co- P           146.47     6.458 No_date    28:16   50.64  n/a      .000
10268>                             +  1.0 02: N_TO          54838.44   110.461 No_date    36:21   29.14  n/a      .000
10269>                             +  1.0 02: MH105- JR        33.95     8.167 No_date    28:08   50.23  n/a      .000
10270>                             +  1.0 02: A8- MI- JR          .00      .000 No_date     0:00     .00  n/a      .000
10271>                             +  1.0 02: A9- MI              .00      .000 No_date     0:00     .00  n/a      .000
10272>                             +  1.0 02: A10- MI             .00      .000 No_date     0:00     .00  n/a      .000
10273>                             +  1.0 02: A11- MI             .00      .000 No_date     0:00     .00  n/a      .000
10274>                             +  1.0 02: A12- MI             .00      .000 No_date     0:00     .00  n/a      .000
10275>                             +  1.0 02: A13- MI             .00      .000 No_date     0:00     .00  n/a      .000
10276>                      SUM=      1.0 01: corrig         55018.86   111.029 No_date    36:20   29.21  n/a      .000
10277> R0025: C00384-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10278>      SAVE HYD                 1.0 01: corrig           55018.86   111.029 No_date    36:20   29.21  n/a      .000
10279>        fname : corrig. 0025
10280>        remark: Total Flows at Corrigan Pond
10281> #*************************************************************************
10282> #    Corrigan Pond 1
10283> #    - Rating curve obtained from Barrhaven South MSS modeling
10284> #    - Tributary Drainage Area to MSS Pond 1 = 145 ha
10285> #*************************************************************************
10286> #
10287> # Hydrograph from Corrigan Drain routed to Jockvale Road
10288> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
10289> #
10290> R0025: C00385-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10291>      ROUTE CHANNEL            ->       1.0 02: corrig     55018.86   111.029 No_date    36:20   29.21  n/a      .000
10292>      [RDT= 1.00]  out <-      1.0 01: N_MI               55018.86   111.007 No_date    36:23   29.21  n/a      .000
10293>        [L/S/ n=  580. /  .445/. 045]
10294>        [Vmax= 1. 964: Dmax= 1. 850]
10295> #*************************************************************************
10296> #    Catchment MILLS
10297> #    - To SWM Facility north of the Jock
10298> #    - Primarily residental development
10299> #*************************************************************************
10300> R0025: C00386-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10301>      CONTI NUOUS STANDHYD     1.0 01: MILLS            175.99     15.275 No_date    28:07   44.62  .600     .000
10302>        [XI M%= 38: TI MP=. 38]
10303>        [LOSS= 2 : CN= 74. 0]
10304>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10305>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1118. : MNI =. 013: SCI =    .0]
10306>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10307>        [SMN= 36. 67:  SMX%= 244. 49:  SK= . 010]
10308> #*************************************************************************
10309> #    Chapman Mills SWM Pond
10310> #    - Rating curve obtained from CCL hydraulic modeling
10311> #*************************************************************************
10312> R0025: C00387-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10313>      ROUTE RESERVOIR          ->       1.0 02: MILLS      175.99     15.275 No_date    28:07   44.62  n/a      .000
10314>                 out <=       1.0 01: MILL_P           162.60      4.050 No_date    28:16   44.62  n/a      .000
10315>              overflow <=     1.0 03: MILL- OV           13.39      8.160 No_date    28:16   44.62  n/a      .000
10316>        [MkStoSto=. 2310E+01  m3,  Tot Or Vol=. 5973E+00  m3,  N-Or f=     2,  Tot Dur Or f=     1. hrs]
10317> R0025: C00388-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10318>      ADD HYD                  1.0 02: N_MI             55018.86   111.007 No_date    36:23   29.21  n/a      .000
10319>                             +  1.0 02: MIL- OV           13.39      8.160 No_date    28:16   44.62  n/a      .000
10320>                             +  1.0 02: MILL_P           162.60      4.050 No_date    28:16   44.62  n/a      .000
10321>                      SUM=      1.0 01: SN_MI            55194.86   111.576 No_date    36:23   29.26  n/a      .000
10322> R0025: C00389-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10323>      SAVE HYD                 1.0 01: SN_MI            55194.86   111.576 No_date    36:23   29.26  n/a      .000
10324>        fname : SN_MI. 0025
10325>        remark: Total Flows at Jockvale Road
10326> #
10327> # Hydrograph from Jockvale Road routed to Heart's Desire
10328> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
10329> #
10330> R0025: C00390-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10331>      ROUTE CHANNEL            ->       1.0 02: SN_MI      55194.86   111.576 No_date    36:23   29.26  n/a      .000
10332>      [RDT= 1.00]  out <-      1.0 01: N_DE               55194.86   111.136 No_date    36:40   29.26  n/a      .000
10333>        [L/S/ n=  1962. /  .223/. 045]
10334>        [Vmax= 1. 515: Dmax= 2. 337]
10335> #*************************************************************************
10336> #    Catchment DESIRE
10337> #    - To Jock River (north of the Jock)
10338> #    - Rural-estate subdivision (Heart's Desire Community)
10339> #*************************************************************************
10340> R0025: C00391-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10341>      CONTI NUOUS STANDHYD     1.0 01: DESIRE            23.78      2.161 No_date    28:03   40.77  .548     .000
10342>        [XI M%= 25: TI MP=. 25]
10343>        [LOSS= 2 : CN= 77. 0]
10344>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10345>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 400. : MNI =. 013: SCI =    .0]
10346>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10347>        [SMN= 31. 15:  SMX%= 207. 66:  SK= . 010]
10348> #*************************************************************************
10349> #    Catchment JOCKVA
10350> #    - To Jockvale SWM Facility
10351> #    - Residential development & golf course
10352> #    - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
10353> #      JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
10354> #*************************************************************************
10355> R0025: C00392-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10356>      CONTI NUOUS STANDHYD     1.0 01: JOCKVA           225.13     21.797 No_date    28:07   50.08  .673     .000
10357>        [XI M%= 50: TI MP=. 50]
10358>        [LOSS= 2 : CN= 74. 0]
10359>        [Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
10360>        [Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1311. : MNI =. 013: SCI =    .0]
10361>        [I aREC] mp=   4. 00: I aREC per=    4. 00]
10362>        [SMN= 36. 67:  SMX%= 244. 49:  SK= . 010]
10363> R0025: C00393-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10364>      ADD HYD                  1.0 02: EX- LAND- MN         32.50      2.275 No_date    27:52   50.26  n/a      .000
10365>                             +  1.0 02: JOCKVA           225.13     21.797 No_date    28:07   50.08  n/a      .000
10366>                             +  1.0 02: B2- MI              .00      .000 No_date     0:00     .00  n/a      .000
10367>                             +  1.0 03: B3- MI              .00      .000 No_date     0:00     .00  n/a      .000
10368>                      SUM=      1.0 01: JOCKVA- TO       257.63     24.072 No_date    28:07   50.10  n/a      .000
10369> R0025: C00394-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10370>      SAVE HYD                 1.0 01: JOCKVA- TO       257.63     24.072 No_date    28:07   50.10  n/a      .000
10371>        fname : JOCKVA- TO. 0025
10372>        remark: Total Flows at KB first pond
10373> #*************************************************************************
10374> #    Jockvale SWM Facility
10375> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
10376> #*************************************************************************
10377> R0025: C00395-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10378>      ROUTE RESERVOIR          ->       1.0 02: JOCKVA- TO   257.63     24.072 No_date    28:07   50.10  n/a      .000
10379>                 out <=       1.0 01: JOCK_P           257.63      9.145 No_date    28:37   50.10  n/a      .000
10380>              overflow <=     1.0 03: JO- OVF             .00      .000 No_date     0:00     .00  n/a      .000
10381>        [MkStoSto=. 5425E+01  m3,  Tot Or Vol=. 0000E+00  m3,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
10382> R0025: C00396-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10383>      ADD HYD                  1.0 02: DE               55194.86   111.136 No_date    36:40   29.26  n/a      .000
10384>                             +  1.0 02: DESIRE            23.78      2.161 No_date    28:03   40.77  n/a      .000
10385>                             +  1.0 02: JO- OVF             .00      .000 No_date     0:00     .00  n/a      .000
10386>                             +  1.0 02: JOCK_P          257.63      9.145 No_date    28:37   50.10  n/a      .000
10387>                      SUM=      1.0 01: SN_DE            55476.27   111.989 No_date    36:39   29.36  n/a      .000
10388> R0025: C00397-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10389>      SAVE HYD                 1.0 01: SN_DE            55476.27   111.989 No_date    36:39   29.36  n/a      .000
10390>        fname : SN_DE. 0025
10391>        remark: Total Flows at Heart's Desire
10392> #
10393> # Hydrograph from Heart's Desire routed to Rideau River
10394> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
10395> #
10396> R0025: C00398-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10397>      ROUTE CHANNEL            ->       1.0 02: SN_DE      55476.27   111.989 No_date    36:39   29.36  n/a      .000
10398>      [RDT= 1.00]  out <-      1.0 01: NI                 55476.27   111.973 No_date    36:42   29.36  n/a      .000
10399>        [L/S/ n=  563. /  .967/. 045]
10400>        [Vmax= 2. 009: Dmax= 1. 172]
10401> #*************************************************************************
10402> #    Catchment S-2
10403> #    - To Jock River (north and south)
10404> #    - Undeveloped floodplain land river
10405> #*************************************************************************
10406> R0025: C00399-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10407>      CONTI NUOUS NASHYD       1.0 01: S-2              102.94      3.971 No_date    28:20   30.13  .405     .000
10408>        [CN= 72. 0:  N= 3. 00:  Tp=   . 40]
10409>        [I aREC= 4. 00:  SMN= 39. 75:  SMX%= 264. 99:  SK= . 010]
10410>        [I nterEvent Ti me=  12. 00]
10411> R0025: C00400-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10412>      ADD HYD                  1.0 02: NI               55476.27   111.973 No_date    36:42   29.36  n/a      .000
10413>                             +  1.0 02: S-2              102.94      3.971 No_date    28:20   30.13  n/a      .000
10414>                      SUM=      1.0 01: SN_NI            55579.21   112.199 No_date    36:41   29.36  n/a      .000
10415> R0025: C00401-------------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C.---DWF cms
10416>      SAVE HYD                 1.0 01: SN_NI            55579.21   112.199 No_date    36:41   29.36  n/a      .000
10417>        fname : SN_NI. 0025
10418>        remark: Total Flows at Rideau River
10419> ##########################################################################
10420>   ** END OF RUN :  49
10421>
10422> **************************************************************************
10423>
10424>
10425>
10426>
10427>
10428>  RUN#: COMMAND#
10429> R0050: C00001-------------------------------------------------------------------------------
10430>       START
10431>         [TZERO =     .00 hrs on        0]
10432>         [METOUT=    2    (1=imperial, 2=metric output)]
10433>         [NSTORM=    1 ]
10434>         [NRUN  =  0050 ]
10435> #*************************************************************************
10436> #  SWMHYMO Ver 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
10437> #*************************************************************************
10438> #  Project Name: [Jock River]      Project Number: [1474-16]
10439> #  Date        : 04-03-2021
10440> #  Modeller    : [MM]
10441> #  Company     : JFSAi nc.
10442> #  License #   : 2549237
10443> #*************************************************************************
10444> # CALIBRATION OF SUMMER MODEL PARAMETERS
10445> # USING CONTINUOUS SIMULATIONS
10446> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
10447> # Use data collected from May 1st to July 14, 2003
10448> # 2020-11-30 change TIMSTO to COMPUTE DUALHYD ( TIMSTO = 0. 1 instead of 0. 0001)
10449> # 2020-12-01 correct pond curve values
10450> # 2020-12-01 change W_CLAR_BRAC XIMP to 0. 55, SLPI =[0. 5]( %) (impervious slope), and LGI up to 700m
10451> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 ( NHYDout=[" N_TO" ] , NHYDin=[" S_TO" ]) from 0. 033 %( as per S
10452> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 ( NHYDout=[" N_WC" ] , NHYDin=[" SN_CE" ]) from 0. 01 %( as per St
10453> # ---------------------------------------------------------------------------
10454> R0050: C00002-------------------------------------------------------------------------------
10455>       READ STORM
10456>         Filename = storm 001
10457>         Comment  = Pluie SCS de 24 hres 1: 50 ans pour Ottawa CDA
10458>         [SDT=10. 00: SDDR=  24. 00: PTOT=  81. 51]
10459> R0050: C00003-------------------------------------------------------------------------------
10460>       MODIFY STORM
10461>         [RFACT=  1. 00: TSHIFT= 960. 00 min]
10462>         [SDT=10. 00: SDDR=  40. 00: PTOT=  81. 51]
10463> R0050: C00004-------------------------------------------------------------------------------
10464>       DEFAULT VALUES
10465>         Filename = T: \PROJ\1474- 16\Design\20201026- QuantityControlAnalysis\SWMHYMO\SMR- Model\updated3\CitiGate. DEF
10466>         ICASE& dv  = 1 (read and print data)
10467>         FileTitle= File comment: [Based on various calibration exercises in Ont a
10468>                    THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
10469>         Horton's infiltration equation parameters:
10470>         [Fo= 76. 20 mm/hr] [Fc=13. 20 mm/hr] [DCAY= 4. 14 /hr] [F=   .00 mm]
10471>         Parameters for PERVIOUS surfaces in STANDHYD:
10472>         [I Aper=    4. 67 mm] [LGP=50. 00 m] [MNP=. 250]
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10473>         Parameters for IMPERVIOUS surfaces in STANDHYD:
10474>         [IAimp=    1.57 mm] [CLI= 1.50]    [MNI= .013]
10475>         Parameters used in NASHYD:
10476>         [Ia=    4.67 mm] [N= 3.00]
10477>         Average monthly Pan Evaporation data in      (mm)
10478>      JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
10479>     .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
10480>         Average monthly Potential Evapotranspiration in      (mm)
10481>      JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
10482>     .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
10483> R0050: C00005-------------------------------------------------------------------------------------------------------
10484>         COMPUTE API
10485>         [API in= 50.00: API kdy= .8500: API kdt= .9989]
10486>         [API max=113.33: API avg= 67.14: API min= 44.87]
10487> #
10488> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10489> # of 1.32
10490> R0050: C00006------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10491>      CONTINUOUS NASHYD       1.0 01: JR_HW       3680.00    18.440 No_date   36:55   30.33 .372     .000
10492>         [CN= 64.0: N= 3.00: Tp= 7.13]
10493>         [IaREC= 4.00: SMN= 57.05: SMX=380.32: SK= .010]
10494>         [InterEventTime= 12.00]
10495> #
10496> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10497> # of 1.32
10498> R0050: C00007------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10499>      CONTINUOUS NASHYD       1.0 01: SW_13        971.00     6.937 No_date   32:34   28.27 .347     .000
10500>         [CN= 61.0: N= 3.00: Tp= 3.76]
10501>         [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
10502>         [InterEventTime= 12.00]
10503> #
10504> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10505> # of 1.80
10506> R0050: C00008------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10507>      CONTINUOUS NASHYD       1.0 01: JR_GWM      3074.00     8.912 No_date   39:59   24.31 .298     .000
10508>         [CN= 55.0: N= 3.00: Tp=11.33]
10509>         [IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
10510>         [InterEventTime= 12.00]
10511> R0050: C00009------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10512>      CONTINUOUS NASHYD       1.0 01: JR_ASH      1781.00    16.834 No_date   32:39   36.85 .452     .000
10513>         [CN= 72.0: N= 3.00: Tp= 3.91]
10514>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
10515>         [InterEventTime= 12.00]
10516> R0050: C00010------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10517>      CONTINUOUS NASHYD       1.0 01: SW_11        500.00     9.061 No_date   29:21   31.73 .389     .000
10518>         [CN= 66.0: N= 3.00: Tp= 1.24]
10519>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
10520>         [InterEventTime= 12.00]
10521> #
10522> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10523> # of 1.80
10524> R0050: C00011------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10525>      CONTINUOUS NASHYD       1.0 01: NN_CK       1917.00    12.342 No_date   34:26   31.73 .389     .000
10526>         [CN= 66.0: N= 3.00: Tp= 5.29]
10527>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
10528>         [InterEventTime= 12.00]
10529> #
10530> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10531> # of 1.52
10532> R0050: C00012------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10533>      CONTINUOUS NASHYD       1.0 01: SW_10       5666.00    32.402 No_date   37:52   36.85 .452     .000
10534>         [CN= 72.0: N= 3.00: Tp= 8.00]
10535>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
10536>         [InterEventTime= 12.00]
10537> #
10538> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10539> # of 1.75
10540> R0050: C00013------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10541>      CONTINUOUS NASHYD       1.0 01: KG_CK       8376.00    31.024 No_date   39:59   31.73 .389     .000
10542>         [CN= 66.0: N= 3.00: Tp=11.66]
10543>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
10544>         [InterEventTime= 12.00]
10545> #
10546> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10547> # of 1.68
10548> R0050: C00014------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10549>      CONTINUOUS NASHYD       1.0 01: SW_9        1132.00    14.039 No_date   30:53   35.35 .434     .000
10550>         [CN= 70.0: N= 3.00: Tp= 2.51]
10551>         [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
10552>         [InterEventTime= 12.00]
10553> #
10554> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10555> # of 1.82
10556> R0050: C00015------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10557>      CONTINUOUS NASHYD       1.0 01: NC_CK       4464.00    15.472 No_date   39:59   28.95 .355     .000
10558>         [CN= 62.0: N= 3.00: Tp=11.32]
10559>         [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
10560>         [InterEventTime= 12.00]
10561> #
10562> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10563> # of 1.80
10564> R0050: C00016------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10565>      CONTINUOUS NASHYD       1.0 01: SW_8         131.00     2.740 No_date   28:57   29.64 .364     .000
10566>         [CN= 63.0: N= 3.00: Tp= .90]
10567>         [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
10568>         [InterEventTime= 12.00]
10569> #
10570> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10571> # of 1.65
10572> R0050: C00017------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10573>      CONTINUOUS NASHYD       1.0 01: HB_DR       3854.00    18.180 No_date   38:32   31.73 .389     .000
10574>         [CN= 66.0: N= 3.00: Tp= 8.42]
10575>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
10576>         [InterEventTime= 12.00]
10577> #
10578> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10579> # of 1.82
10580> R0050: C00018------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10581>      CONTINUOUS NASHYD       1.0 01: SW_7        3197.00    13.937 No_date   36:23   25.61 .314     .000
10582>         [CN= 57.0: N= 3.00: Tp= 6.65]
10583>         [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
10584>         [InterEventTime= 12.00]
10585> #
10586> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10587> # of 1.75
10588> R0050: C00019------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10589>      CONTINUOUS NASHYD       1.0 01: SW_6         165.00     1.285 No_date   33:02   32.44 .398     .000
10590>         [CN= 67.0: N= 3.00: Tp= 4.18]
10591>         [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
10592>         [InterEventTime= 12.00]
10593> #
10594> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10595> # of 1.67
10596> R0050: C00020------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10597>      CONTINUOUS NASHYD       1.0 01: VG_DR       1332.00     9.332 No_date   35:12   36.85 .452     .000
10598>         [CN= 72.0: N= 3.00: Tp= 5.95]
10599>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
10600>         [InterEventTime= 12.00]
10601> R0050: C00021------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10602>      CONTINUOUS NASHYD       1.0 01: SW_5         224.00     8.187 No_date   28:45   41.51 .509     .000
10603>         [CN= 77.0: N= 3.00: Tp= .75]
10604>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
10605>         [InterEventTime= 12.00]
10606> #
10607> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10608> # of 1.20
10609> R0050: C00022------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10610>      CONTINUOUS NASHYD       1.0 01: FL_CK       4945.00    44.623 No_date   33:18   38.37 .471     .000
10611>         [CN= 74.0: N= 3.00: Tp= 4.45]
10612>         [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
10613>         [InterEventTime= 12.00]
10614> R0050: C00023------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10615>      CONTINUOUS NASHYD       1.0 01: SW_5A2       20.00      .943 No_date   28:35   45.60 .560     .000
10616>         [CN= 81.0: N= 3.00: Tp=  .62]
10617>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
10618>         [InterEventTime= 12.00]
10619> #
10620> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
10621> # of 1.61
10622> R0050: C00024------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10623>      CONTINUOUS NASHYD       1.0 01: SW_5A1      1412.00     8.794 No_date   37:48   39.93 .490     .000
10624>         [CN= 75.0: N= 3.00: Tp= 8.00]
10625>         [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
10626>         [InterEventTime= 12.00]
10627> R0050: C00025------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10628>      CONTINUOUS NASHYD       1.0 01: SW_4         585.00    12.896 No_date   29:55   45.60 .560     .000
10629>         [CN= 81.0: N= 3.00: Tp= 1.75]
10630>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
10631>         [InterEventTime= 12.00]
10632> R0050: C00026------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10633>      CONTINUOUS NASHYD       1.0 01: LM_CK       1021.00    17.059 No_date   30:46   44.77 .549     .000
10634>         [CN= 80.0: N= 3.00: Tp= 2.46]
10635>         [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
10636>         [InterEventTime= 12.00]
10637> R0050: C00027------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10638>      CONTINUOUS NASHYD       1.0 01: SW_2         177.00     6.469 No_date   28:45   41.51 .509     .000
10639>         [CN= 77.0: N= 3.00: Tp= .75]
10640>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
10641>         [InterEventTime= 12.00]
10642> R0050: C00028------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10643>      CONTINUOUS NASHYD       1.0 01: SM_DR       1122.00    15.544 No_date   31:43   45.60 .560     .000
10644>         [CN= 81.0: N= 3.00: Tp= 3.25]
10645>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
10646>         [InterEventTime= 12.00]
10647> R0050: C00029------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10648>      CONTINUOUS NASHYD       1.0 01: MD_DR       2737.00    34.946 No_date   31:29   40.72 .500     .000
10649>         [CN= 76.0: N= 3.00: Tp= 3.03]
10650>         [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
10651>         [InterEventTime= 12.00]
10652> #
10653> # Routing hydrographs
10654> #
10655> # Starting with the addition of Jock River Headwater and Subwatershed 13
10656> #
10657> R0050: C00030------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10658>      ADD HYD                 1.0 02: JR_HW       3680.00    18.440 No_date   36:55   30.33  n/a     .000
10659>                        +     1.0 02: SW_13        971.00     6.937 No_date   32:34   28.27  n/a     .000
10660>                        SUM=  1.0 01: S_N13       4651.00    23.559 No_date   35:24   29.90  n/a     .000
10661> #
10662> # Sum of hydrographs from Node 13 routed to Node 13A
10663> # (Approximated cross-section - see cross-section 258)
10664> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
10665> #
10666> R0050: C00031------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10667>      ROUTE CHANNEL     ->    1.0 02: S_N13       4651.00    23.559 No_date   35:24   29.90  n/a     .000
10668>         [RDT= 1.00] out <-    1.0 01: N13A        4651.00    19.136 No_date   39:06   29.90  n/a     .000
10669>         [L/S/n= 9074./ .022/ .040]
10670>         [Vmax= .574: Dmax= 3.920]
10671> #
10672> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
10673> #
10674> R0050: C00032------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10675>      ADD HYD                 1.0 02: N13A        4651.00    19.136 No_date   39:06   29.90  n/a     .000
10676>                        +     1.0 02: JR_GWM      3074.00     8.912 No_date   39:59   24.31  n/a     .000
10677>                        SUM=  1.0 01: SN13A       7725.00    27.939 No_date   39:54   27.68  n/a     .000
10678> #
10679> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
10680> #
10681> R0050: C00033------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10682>      ROUTE RESERVOIR ->    1.0 02: SN13A       7725.00    27.939 No_date   39:54   27.68  n/a     .000
10683>                        out <=  1.0 01: RES_GM    7725.00     3.808 No_date   61:35   27.67  n/a     .000
10684>         [MaxStoXsec=.1481E+03  m3]
10685> #
10686> R0050: C00034------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10687>      SAVE HYD                1.0 01: RES_GM      7725.00     3.808 No_date   61:35   27.67  n/a     .000
10688>         fname : H_RESGM
10689>         remark: Outflow from Res GM
10690> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
10691> # (Approximated cross-section - see cross-section 258)
10692> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
10693> R0050: C00035------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10694>      ROUTE CHANNEL     ->    1.0 02: RES_GM      7725.00     3.808 No_date   61:35   27.67  n/a     .000
10695>         [RDT= 1.00] out <-    1.0 01: N12         7725.00     3.804 No_date   64:19   27.68  n/a     .000
10696>         [L/S/n= 5926./ .076/ .040]
10697>         [Vmax= .556: Dmax= 1.541]
10698> #
10699> # Addition of Subwatershed Jock River at Ashton to Node 12
10700> #
10701> R0050: C00036------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10702>      ADD HYD                 1.0 02: N12         7725.00     3.804 No_date   64:19   27.68  n/a     .000
10703>                        +     1.0 02: JR_ASH      1781.00    16.834 No_date   32:39   36.85  n/a     .000
10704>                        SUM=  1.0 01: S_N12       9506.00    18.867 No_date   32:42   29.39  n/a     .000
10705> R0050: C00037------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10706>      SAVE HYD                1.0 01: S_N12       9506.00    18.867 No_date   32:42   29.39  n/a     .000
10707>         fname : H_SN12
10708>         remark: flow at S_N12 near Ashton
10709> #
10710> # Sum of hydrographs from Node 12 routed to Node 11
10711> # (Approximated cross-section - see cross-section 258)
10712> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
10713> #
10714> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
10715> #
10716> R0050: C00038------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10717>      ROUTE CHANNEL     ->    1.0 02: S_N12       9506.00    18.867 No_date   32:42   29.39  n/a     .000
10718>         [RDT= 1.00] out <-    1.0 01: Dum11       9506.00    18.687 No_date   32:59   29.39  n/a     .000
10719>         [L/S/n= 972./ .054/ .040]
10720>         [Vmax= .751: Dmax= 3.029]
10721> #
10722> # Addition of Subwatershed 11 and No Name Creek to Node 11
10723> #
10724> R0050: C00039------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10725>      ADD HYD                 1.0 02: Dum11       9506.00    18.687 No_date   32:59   29.39  n/a     .000
10726>                        +     1.0 02: SW_11        500.00     9.061 No_date   29:21   31.73  n/a     .000
10727>                        +     1.0 02: NN_CK       1917.00    12.342 No_date   34:26   31.73  n/a     .000
10728>                        SUM=  1.0 01: S_N11       11923.00    32.851 No_date   33:00   29.87  n/a     .000
10729> #
10730> # Sum of hydrographs from Node 11 routed to Node 10
10731> # Section 1
10732> #
10733> R0050: C00040------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10734>      ROUTE CHANNEL     ->    1.0 02: S_N11       11923.00    32.851 No_date   33:00   29.87  n/a     .000
10735>         [RDT= 1.00] out <-    1.0 01: N10         11923.00    20.490 No_date   40:02   29.87  n/a     .000
10736>         [L/S/n=14028./ .157/ .040]
10737>         [Vmax= .474: Dmax= 1.423]
10738> #
10739> # Addition of Subwatershed 10 to Node 10
10740> #
10741> R0050: C00041------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10742>      ADD HYD                 1.0 02: N10         11923.00    20.490 No_date   40:02   29.87  n/a     .000
10743>                        +     1.0 02: SW_10        5666.00    32.402 No_date   37:52   36.85  n/a     .000
10744>                        SUM=  1.0 01: S_N10       17589.00    52.600 No_date   38:19   32.12  n/a     .000
10745> R0050: C00042------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10746>      SAVE HYD                1.0 01: S_N10       17589.00    52.600 No_date   38:19   32.12  n/a     .000
10747>         fname : H_SN10
10748>         remark: flow at S_N10:  N10 + SW_10
10749> # Addition of Kings Creek to S_N10
10750> #
10751> R0050: C00043------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10752>      ADD HYD                 1.0 02: S_N10       17589.00    52.600 No_date   38:19   32.12  n/a     .000
10753>                        +     1.0 02: KG_CK        8376.00    31.024 No_date   39:59   31.73  n/a     .000
10754>                        SUM=  1.0 01: S_N10A      25965.00    82.746 No_date   39:45   31.99  n/a     .000
10755> #
10756> # Sum of hydrographs from Node 10 routed to Node 9
10757> # Section 2
10758> #
10759> R0050: C00044------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10760>      ROUTE CHANNEL     ->    1.0 02: S_N10A      25965.00    82.746 No_date   39:45   31.99  n/a     .000
10761>         [RDT= 1.00] out <-    1.0 01: N9          25965.00    80.980 No_date   39:59   31.99  n/a     .000
10762>         [L/S/n= 3982./ .075/ .040]
10763>         [Vmax= .744: Dmax= 2.015]
10764> #
10765> # Addition of Subwatershed 9 and Nichols Creek to Node 9
10766> #
10767> R0050: C00045------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10768>      ADD HYD                 1.0 02: N9          25965.00    80.980 No_date   39:59   31.99  n/a     .000
10769>                        +     1.0 02: SW_9         1132.00    14.039 No_date   30:53   35.35  n/a     .000
10770>                        +     1.0 02: NC_CK        4464.00    15.472 No_date   39:59   28.95  n/a     .000
10771>                        SUM=  1.0 01: S_N9        31561.00    99.424 No_date   39:59   31.68  n/a     .000
10772> #
10773> # Sum of hydrographs from Node 9 routed to Node 8
10774> # Section 3
10775> #
10776> R0050: C00046------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10777>      ROUTE CHANNEL     ->    1.0 02: S_N9        31561.00    99.424 No_date   39:59   31.68  n/a     .000
10778>         [RDT= 1.00] out <-    1.0 01: N8          31561.00    93.665 No_date   39:59   31.68  n/a     .000
10779>         [L/S/n= 2269./ .088/ .045]
10780>         [Vmax= .367: Dmax= 1.834]
10781> #
10782> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
10783> #
10784> R0050: C00047------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10785>      ADD HYD                 1.0 02: N8          31561.00    93.665 No_date   39:59   31.68  n/a     .000
10786>                        +     1.0 02: SW_8         131.00     2.740 No_date   28:57   29.64  n/a     .000
10787>                        +     1.0 02: HB_DR       3854.00    18.180 No_date   38:32   31.73  n/a     .000
10788>                        SUM=  1.0 01: S_N8        35546.00   111.843 No_date   39:59   31.68  n/a     .000
10789> #
10790> # Sum of hydrographs from Node 8 routed to Node 7
10791> # Section 4
10792> #
10793> R0050: C00048------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10794>      ROUTE CHANNEL     ->    1.0 02: S_N8        35546.00   111.843 No_date   39:59   31.68  n/a     .000
10795>         [RDT= 1.00] out <-    1.0 01: N7          35546.00    95.475 No_date   44:55   31.68  n/a     .000
10796>         [L/S/n= 3750./ .053/ .070]
10797>         [Vmax= .231: Dmax= 2.290]
10798> #
10799> # Addition of Subwatershed 7 to Node 7
10800> #
10801> R0050: C00049------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10802>      ADD HYD                 1.0 02: N7          35546.00    95.475 No_date   44:55   31.68  n/a     .000
10803>                        +     1.0 02: SW_7         3197.00    13.937 No_date   36:23   25.61  n/a     .000
10804>                        SUM=  1.0 01: S_N7        38743.00   102.892 No_date   43:46   31.18  n/a     .000
10805> R0050: C00050------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10806>      SAVE HYD                1.0 01: S_N7        38743.00   102.892 No_date   43:46   31.18  n/a     .000
10807>         fname : H_SN7
10808>         remark: flow at S_N7:  N7 + SW_7
10809> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
10810> # Storage area and volumes were estimated from available topo maps.
10811> # Release rate from fen was assumed to be controlled by the downstream
10812> # river cross-section for summer conditions.  It is was assumed that for up to
10813> # 0.75 m of water, the main channel of the river provided the storage.  Above
10814> # this depth, the wetland starts to significantly store water.
10815> #
10816> R0050: C00051------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10817>      ROUTE RESERVOIR ->    1.0 02: S_N7        38743.00   102.892 No_date   43:46   31.18  n/a     .000
10818>                        out <=  1.0 01: RES_RF    38743.00    52.029 No_date   59:07   31.18  n/a     .000
10819>         [MaxStoXsec=.4394E+03  m3]
10820> R0050: C00052------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10821>      SAVE HYD                1.0 01: RES_RF      38743.00    52.029 No_date   59:07   31.18  n/a     .000
10822>         fname : H_ResRF
10823>         remark: outflow of Richmond Fen
10824> #
10825> # Sum of hydrographs from Node 7 routed to Node 6
10826> # Section 5
10827> #
10828> R0050: C00053------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10829>      ROUTE CHANNEL     ->    1.0 02: RES_RF      38743.00    52.029 No_date   59:07   31.18  n/a     .000
10830>         [RDT= 1.00] out <-    1.0 01: N6          38743.00    51.784 No_date   60:27   31.18  n/a     .000
10831>         [L/S/n= 3056./ .082/ .025]
10832>         [Vmax= .538: Dmax= 1.253]
10833> #
10834> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
10835> #
10836> R0050: C00054------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10837>      ADD HYD                 1.0 02: N6          38743.00    51.784 No_date   60:27   31.18  n/a     .000
10838>                        +     1.0 02: SW_6         165.00     1.285 No_date   33:02   32.44  n/a     .000
10839>                        +     1.0 02: VG_DR       1332.00     9.332 No_date   35:12   36.85  n/a     .000
10840>                        SUM=  1.0 01: S_N6        40240.01    51.810 No_date   60:20   31.37  n/a     .000
10841> #
10842> # Sum of hydrographs from Node 6 routed to Node 5
10843> # Section 6
10844> #
10845> R0050: C00055------------DTmin- ID: NHYD--------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10846>      ROUTE CHANNEL     ->    1.0 02: S_N6        40240.01    51.810 No_date   60:20   31.37  n/a     .000
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10847>      [ RDT= 1. 00] out <-      1. 0 01: NS          40240. 01    51. 693 No_date    61: 06    31. 37   n/ a      . 000
10848>       [ L/ S/ n= 1852. / . 054/ . 035]
10849>       [ Vmx= .469: Dmx= 1. 351]
10850> #
10851> # Addition of Subwatershed 5 and Flowing Creek to Node 5
10852> #
10853> R0050: C00056- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10854>      ADD HYD                1. 0 02: NS          40240. 01    51. 693 No_date    61: 06    31. 37   n/ a      . 000
10855>                        +    1. 0 02: SW_5          224. 00     8. 187 No_date    28: 45    41. 51   n/ a      . 000
10856>                        +    1. 0 02: FL_ CK       4945. 00    44. 623 No_date    33: 18    38. 37   n/ a      . 000
10857>                       SUM=  1. 0 01: S_ NS        45409. 01    71. 514 No_date    34: 20    32. 18   n/ a      . 000
10858> #
10859> # Sum of hydrographs from Node 5 routed to Node 5A
10860> # Section 7
10861> #
10862> R0050: C00057- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10863>      ROUTE CHANNEL     - >    1. 0 02: S_ NS       45409. 01    71. 514 No_date    34: 20    32. 18   n/ a      . 000
10864>       [ RDT= 1. 00] out <-      1. 0 01: NS A      45409. 01    71. 311 No_date    34: 15    32. 18   n/ a      . 000
10865>       [ L/ S/ n= .556. / . 090/ . 040]
10866>       [ Vmx= . 530: Dmx= 1. 290]
10867> #
10868> # Addition of Subwatershed 5Al and Subwatershed 5A2 to Node 5A
10869> #
10870> R0050: C00058- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10871>      ADD HYD                1. 0 02: NS A      45409. 01    71. 311 No_date    34: 15    32. 18   n/ a      . 000
10872>                        +    1. 0 02: SW_5A2        20. 00      . 943 No_date    28: 35    45. 60   n/ a      . 000
10873>                        +    1. 0 02: SW_5Al      1412. 00     8. 794 No_date    37: 48    39. 93   n/ a      . 000
10874>                       SUM=  1. 0 01: S_ NSA      46841. 01    79. 247 No_date    34: 46    32. 42   n/ a      . 000
10875> #
10876> # Sum of hydrographs from Node 5A routed to Node 4
10877> # Section 8
10878> #
10879> R0050: C00059- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10880>      ROUTE CHANNEL     - >    1. 0 02: S_ NSA      46841. 01    79. 247 No_date    34: 46    32. 42   n/ a      . 000
10881>       [ RDT= 1. 00] out <-      1. 0 01: N4         46841. 01    75. 833 No_date    36: 02    32. 42   n/ a      . 000
10882>       [ L/ S/ n= 4630. / . 043/ . 035]
10883>       [ Vmx= . 874: Dmx= 3. 702]
10884> #
10885> # Addition of Subwatershed 4 and Leamy Creek to Node 4
10886> #
10887> R0050: C00060- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10888>      ADD HYD                1. 0 02: N4         46841. 01    75. 833 No_date    36: 02    32. 42   n/ a      . 000
10889>                        +    1. 0 02: SW_4          585. 00    12. 896 No_date    29: 55    45. 60   n/ a      . 000
10890>                        +    1. 0 02: LM_ CK       1021. 00    17. 059 No_date    30: 46    44. 77   n/ a      . 000
10891>                       SUM=  1. 0 01: S_ N4        48447. 00    84. 908 No_date    35: 20    32. 84   n/ a      . 000
10892> R0050: C00061- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10893>      SAVE HYD               1. 0 01: S_ N4      48447. 00    84. 908 No_date    35: 20    32. 84   n/ a      . 000
10894>       fname : S_ N4. 0050
10895>       remrk: flow at S_ N4
10896> #
10897> # Sum of hydrographs from Node 4 routed to Node 2
10898> # Section 9
10899> #
10900> R0050: C00062- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10901>      ROUTE CHANNEL     - >    1. 0 02: S_ N4      48447. 00    84. 908 No_date    35: 20    32. 84   n/ a      . 000
10902>       [ RDT= 1. 00] out <-      1. 0 01: N2         48447. 00    84. 582 No_date    35: 30    32. 84   n/ a      . 000
10903>       [ L/ S/ n= 1667. / . 060/ . 040]
10904>       [ Vmx= . 909: Dmx= 3. 749]
10905> #
10906> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
10907> #
10908> R0050: C00063- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10909>      ADD HYD                1. 0 02: N2         48447. 00    84. 582 No_date    35: 30    32. 84   n/ a      . 000
10910>                        +    1. 0 02: SW_2          177. 00     6. 469 No_date    28: 45    41. 51   n/ a      . 000
10911>                        +    1. 0 02: SM_ DR       1122. 00    15. 544 No_date    31: 43    45. 60   n/ a      . 000
10912>                        +    1. 0 02: MO_ DR       2737. 00    34. 946 No_date    31: 29    40. 72   n/ a      . 000
10913>                       SUM=  1. 0 01: S_ N2        52483. 00    124. 249 No_date    32: 52    33. 56   n/ a      . 000
10914> R0050: C00064- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10915>      SAVE HYD               1. 0 01: S_ N2      52483. 00    124. 249 No_date    32: 52    33. 56   n/ a      . 000
10916>       fname : H_ SN2
10917>       remrk: flow at S_ N2 Jock River Gauge at Moodie Dr.
10918> #
10919> # Sum of hydrographs from Node 2 routed to Node 1
10920> # Section 10
10921> #
10922> #*********************************************************************************
10923> #
10924> # Hydrograph from Node 2 routed to Node 416
10925> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
10926> #
10927> R0050: C00065- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10928>      ROUTE CHANNEL     - >    1. 0 02: S_ N2      52483. 00    124. 249 No_date    32: 52    33. 56   n/ a      . 000
10929>       [ RDT= 1. 00] out <-      1. 0 01: N_ 416     52483. 00    120. 589 No_date    33: 57    33. 56   n/ a      . 000
10930>       [ L/ S/ n= 2327. / . 050/ . 055]
10931>       [ Vmx= . 781: Dmx= 3. 561]
10932> #*********************************************************************************
10933> #     Catchment SW1a
10934> #   - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
10935> #   - Undeveloped agricultural land
10936> #*********************************************************************************
10937> R0050: C00066- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10938>      CONTINUOUS NASHYD      1. 0 01: SW_1a      536. 42      6. 175 No_date    31: 15    35. 39   . 434      . 000
10939>       [ CN= 72. 0: N= 3. 00: Tp= 2. 79]
10940>       [ IaREC= 4. 00: SM N= 39. 75: SMX= 264. 99: SK= . 010]
10941>       [ InterEventTime= 12. 00]
10942> R0050: C00067- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10943>      CONTINUOUS NASHYD      1. 0 01: S_ 1- Okeefe     44. 93      1. 231 No_date    29: 06    39. 91   . 490      . 000
10944>       [ CN= 77. 0: N= 3. 00: Tp= 1. 05]
10945>       [ IaREC= 4. 00: SM N= 31. 15: SMX= 207. 66: SK= . 010]
10946>       [ InterEventTime= 12. 00]
10947> R0050: C00068- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10948>      ADD HYD                1. 0 02: N_ 416     52483. 00    120. 589 No_date    33: 57    33. 56   n/ a      . 000
10949>                        +    1. 0 02: SW_1a         536. 42      6. 175 No_date    31: 15    35. 39   n/ a      . 000
10950>                        +    1. 0 02: S_ 1- Okeefe     44. 93      1. 231 No_date    29: 06    39. 91   n/ a      . 000
10951>                       SUM=  1. 0 01: SN_ 416    53064. 36    125. 484 No_date    33: 19    33. 58   n/ a      . 000
10952> R0050: C00069- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10953>      SAVE HYD               1. 0 01: SN_ 416    53064. 36    125. 484 No_date    33: 19    33. 58   n/ a      . 000
10954>       fname : SN_ 416. 0050
10955>       remrk: Total Flows at Highway 416
10956> #
10957> # Hydrograph from Node 416 routed to Node at Okeefe drain
10958> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
10959> #
10960> R0050: C00070- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10961> ROUTE CHANNEL     - >    1. 0 02: SN_ 416    53064. 36    125. 484 No_date    33: 19    33. 58   n/ a      . 000
10962>       [ RDT= 1. 00] out <-      1. 0 01: N_ OK      53064. 36    125. 374 No_date    33: 43    33. 58   n/ a      . 000
10963>       [ L/ S/ n= 497. / . 302/ . 055]
10964>       [ Vmx= 1. 649: Dmx= 3. 038]
10965> #*********************************************************************************
10966> #     Catchment OKEEFE
10967> #   - To O'Keefe drain (north of the Jock)
10968> #   - Developed with assumed 35% imp.
10969> #   - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
10970> #   - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
10971> #*********************************************************************************
10972> R0050: C00071- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10973>      CONTINUOUS NASHYD      1. 0 01: O 1        63. 72      1. 147 No_date    28: 58    26. 31   . 323      . 000
10974>       [ CN= 61. 0: N= 3. 00: Tp= . 90]
10975>       [ IaREC= 4. 00: SM N= 64. 50: SMX= 430. 01: SK= . 010]
10976>       [ InterEventTime= 12. 00]
10977> R0050: C00072- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10978>      ROUTE CHANNEL     - >    1. 0 02: O 1        63. 72      1. 147 No_date    28: 58    26. 31   n/ a      . 000
10979>       [ RDT= 1. 00] out <-      1. 0 01: O 1R       63. 72      1. 084 No_date    29: 14    26. 31   n/ a      . 000
10980>       [ L/ S/ n= 960. / . 630/ . 043]
10981>       [ Vmx= . 880: Dmx= . 445]
10982> R0050: C00073- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10983>      CONTINUOUS NASHYD      1. 0 01: O 2        28. 61       . 404 No_date    29: 13    24. 30   . 298      . 000
10984>       [ CN= 57. 0: N= 3. 00: Tp= 1. 10]
10985>       [ IaREC= 4. 00: SM N= 76. 32: SMX= 508. 81: SK= . 010]
10986>       [ InterEventTime= 12. 00]
10987> R0050: C00074- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10988>      CONTINUOUS NASHYD      1. 0 01: O 4        37. 94       . 531 No_date    29: 00    18. 55   . 228      . 000
10989>       [ CN= 49. 0: N= 3. 00: Tp= . 90]
10990>       [ IaREC= 4. 00: SM N=104. 59: SMX=697. 25: SK= . 010]
10991>       [ InterEventTime= 12. 00]
10992> R0050: C00075- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10993>      ADD HYD                1. 0 02: O 1R       63. 72      1. 084 No_date    29: 14    26. 31   n/ a      . 000
10994>                        +    1. 0 02: O 2        28. 61       . 404 No_date    29: 13    24. 30   n/ a      . 000
10995>                        +    1. 0 02: O 4        46. 94       . 531 No_date    29: 00    18. 55   n/ a      . 000
10996>                       SUM=  1. 0 01: OKF- N     139. 27     2. 005 No_date    29: 11    23. 28   n/ a      . 000
10997> R0050: C00076- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
10998>      ROUTE CHANNEL     - >    1. 0 02: OKF- N     139. 27     2. 005 No_date    29: 11    23. 28   n/ a      . 000
10999>       [ RDT= 1. 00] out <-      1. 0 01: OKF- NR    139. 27     2. 004 No_date    29: 13    23. 28   n/ a      . 000
11000>       [ L/ S/ n= . 210. / . 810/ . 043]
11001>       [ Vmx= 1. 081: Dmx= . 751]
11002> R0050: C00077- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11003>      CONTINUOUS NASHYD      1. 0 01: O 6        16. 46       . 179 No_date    28: 45    15. 94   . 196      . 000
11004>       [ CN= 43. 0: N= 3. 00: Tp= . 70]
11005>       [ IaREC= 4. 00: SM N=134. 47: SMX=896. 47: SK= . 010]
11006>       [ InterEventTime= 12. 00]
11007> R0050: C00078- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11008>      CONTINUOUS STANDHYD    1. 0 01: O 3        39. 67      1. 212 No_date    28: 22    28. 54   . 350      . 000
11009>       [ XI M= . 15: TI M= . 30]
11010>       [ LOSS= 2 : CN= 50. 0]
11011>       [ Pervious      area: IAper= 4. 67: SLPP= . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
11012>       [ Impervious    area: IAmp= 1. 57: SLPI= . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
11013>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11014>       [ SM N= 99. 77: SMX=665. 12: SK= . 010]
11015> R0050: C00079- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11016>      CONTINUOUS STANDHYD    1. 0 01: O 5        60. 63      3. 085 No_date    28: 10    32. 89   . 403      . 000
11017>       [ XI M= . 13: TI M= . 26]
11018>       [ LOSS= 2 : CN= 61. 0]
11019>       [ Pervious      area: IAper= 4. 67: SLPP=1. 38: LGP= 550. : MNP= . 035: SCP=    . 0]
11020>       [ Impervious    area: IAmp= 1. 57: SLPI=1. 38: LGI=1450. : MNI= . 013: SCI=    . 0]
11021>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11022>       [ SM N= 64. 50: SMX=430. 01: SK= . 010]
11023> R0050: C00080- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11024>      ADD HYD                1. 0 02: OKF- NR    139. 27     2. 004 No_date    29: 13    23. 28   n/ a      . 000
11025>                        +    1. 0 02: O 3        39. 67      1. 212 No_date    28: 22    28. 54   n/ a      . 000
11026>                        +    1. 0 02: O 5        60. 63      3. 085 No_date    28: 10    32. 89   n/ a      . 000
11027>                        +    1. 0 02: O 6        16. 46       . 179 No_date    28: 45    15. 94   n/ a      . 000
11028>                       SUM=  1. 0 01: PT1       256. 03     4. 968 No_date    28: 20    25. 90   n/ a      . 000
11029> R0050: C00081- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11030>      CONTINUOUS NASHYD      1. 0 01: O 7         5. 28       . 096 No_date    28: 37    21. 46   . 263      . 000
11031>       [ CN= 54. 0: N= 3. 00: Tp= . 60]
11032>       [ IaREC= 4. 00: SM N= 87. 01: SMX=580. 07: SK= . 010]
11033>       [ InterEventTime= 12. 00]
11034> R0050: C00082- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11035>      ADD HYD                1. 0 02: PT1        256. 03     4. 968 No_date    28: 20    25. 90   n/ a      . 000
11036>                        +    1. 0 02: O 7          5. 28       . 096 No_date    28: 37    21. 46   n/ a      . 000
11037>                       SUM=  1. 0 01: FF         261. 31     5. 051 No_date    28: 20    25. 81   n/ a      . 000
11038> R0050: C00083- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11039> ROUTE CHANNEL     - >    1. 0 02: FF         261. 31     5. 051 No_date    28: 20    25. 81   n/ a      . 000
11040>       [ RDT= 1. 00] out <-      1. 0 01: DRAI NI    261. 31     4. 883 No_date    28: 25    25. 81   n/ a      . 000
11041>       [ L/ S/ n= 302. / 1. 000/ . 043]
11042>       [ Vmx= . 822: Dmx= . 759]
11043> R0050: C00084- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11044>      CONTINUOUS NASHYD      1. 0 01: DI          1. 17       . 094 No_date    28: 12    43. 70   . 536      . 000
11045>       [ CN= 84. 0: N= 3. 00: Tp= . 28]
11046>       [ IaREC= 4. 00: SM N= 21. 09: SMX=140. 62: SK= . 010]
11047>       [ InterEventTime= 12. 00]
11048> R0050: C00085- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11049>      CONTINUOUS STANDHYD    1. 0 01: A1          2. 50       . 517 No_date    28: 01    64. 42   . 790      . 000
11050>       [ XI M= . 68: TI M= . 85]
11051>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
11052>       [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11053>       [ Impervious    area: IAmp= 1. 57: SLPI=  . 50: LGI=  224. : MNI= . 013: SCI=    . 0]
11054>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11055> R0050: C00086- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11056>      ROUTE RESERVOIR - >    1. 0 02: A1          2. 50       . 517 No_date    28: 01    64. 42   n/ a      . 000
11057>                        out <=    1. 0 01: A1 STR      2. 50       . 146 No_date    28: 19    64. 42   n/ a      . 000
11058>                     overflow <=    1. 0 03: A1- OVF     . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11059>       { MuSt ol ked=. 7243E- 01  m3,  Tot Ov f Vol =. 0000E+ 00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
11060> R0050: C00087- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11061>      CONTINUOUS STANDHYD    1. 0 01: ST- 2        . 59       . 103 No_date    28: 00    50. 67   . 622      . 000
11062>       [ XI M= . 46: TI M= . 57]
11063>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
11064>       [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11065>       [ Impervious    area: IAmp= 1. 57: SLPI=  . 50: LGI=  109. : MNI= . 013: SCI=    . 0]
11066>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11067> R0050: C00088- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11068>      ROUTE RESERVOIR - >    1. 0 02: ST- 2        . 59       . 103 No_date    28: 00    50. 67   n/ a      . 000
11069>                        out <=    1. 0 01: ST2STR      . 59       . 052 No_date    28: 11    50. 67   n/ a      . 000
11070>                     overflow <=    1. 0 03: ST2OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11071>       { MuSt ol ked=. 3952E- 02  m3,  Tot Ov f Vol =. 0000E+ 00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
11072> R0050: C00089- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11073>      CONTINUOUS NASHYD      1. 0 01: O- 8        60. 55      1. 383 No_date    29: 04    33. 66   . 413      . 000
11074>       [ CN= 69. 0: N= 3. 00: Tp= 1. 00]
11075>       [ IaREC= 4. 00: SM N= 44. 32: SMX=298. 82: SK= . 010]
11076>       [ InterEventTime= 12. 00]
11077> R0050: C00090- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11078> ROUTE PIPE         - >    1. 0 02: O- 8        60. 55      1. 383 No_date    29: 04    33. 66   n/ a      . 000
11079>       [ RDT= 1. 00] out <-      1. 0 01: OSPI PE     60. 55      1. 376 No_date    29: 07    33. 66   n/ a      . 000
11080>       [ L/ S/ n= 335. / . 100/ . 013]
11081>       [ Vmx= 1. 244: Dmx= . 617]
11082>       [ HGT H= 1. 20: WDT H= 1. 80]
11083> R0050: C00091- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11084>      ADD HYD                1. 0 02: DRAI NI    261. 31     4. 883 No_date    28: 25    25. 81   n/ a      . 000
11085>                        +    1. 0 02: DI          1. 17       . 094 No_date    28: 12    43. 70   n/ a      . 000
11086>                        +    1. 0 02: A1- STR     2. 50       . 146 No_date    28: 19    64. 42   n/ a      . 000
11087>                        +    1. 0 02: A1- OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11088>                        +    1. 0 02: ST2STR       . 59       . 052 No_date    28: 11    50. 67   n/ a      . 000
11089>                        +    1. 0 02: ST2OVF       . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11090>                        +    1. 0 02: OSPI PE    60. 55      1. 376 No_date    29: 07    33. 66   n/ a      . 000
11091>                       SUM=  1. 0 01: ST2- 1N     326. 12      6. 061 No_date    28: 35    27. 67   n/ a      . 000
11092> R0050: C00092- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11093>      CONTINUOUS STANDHYD    1. 0 01: A7          3. 51       . 704 No_date    28: 01    64. 42   . 790      . 000
11094>       [ XI M= . 68: TI M= . 85]
11095>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
11096>       [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11097>       [ Impervious    area: IAmp= 1. 57: SLPI=  . 50: LGI=  265. : MNI= . 013: SCI=    . 0]
11098>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11099> R0050: C00093- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11100>      ROUTE RESERVOIR - >    1. 0 02: A7          3. 51       . 704 No_date    28: 01    64. 42   n/ a      . 000
11101>                        out <=    1. 0 01: A7- STR     3. 51       . 199 No_date    28: 21    64. 42   n/ a      . 000
11102>                     overflow <=    1. 0 03: A7- OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11103>       { MuSt ol ked=. 1019E+ 00  m3,  Tot Ov f Vol =. 0000E+ 00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
11104> R0050: C00094- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11105>      CONTINUOUS STANDHYD    1. 0 01: ST- 3        . 71       . 123 No_date    28: 00    50. 67   . 622      . 000
11106>       [ XI M= . 46: TI M= . 57]
11107>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
11108>       [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11109>       [ Impervious    area: IAmp= 1. 57: SLPI=  . 50: LGI=  119. : MNI= . 013: SCI=    . 0]
11110>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11111> R0050: C00095- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11112>      ROUTE RESERVOIR - >    1. 0 02: ST- 3        . 71       . 123 No_date    28: 00    50. 67   n/ a      . 000
11113>                        out <=    1. 0 01: ST3STR      . 71       . 063 No_date    28: 11    50. 67   n/ a      . 000
11114>                     overflow <=    1. 0 03: ST3OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11115>       { MuSt ol ked=. 4527E- 02  m3,  Tot Ov f Vol =. 0000E+ 00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
11116> R0050: C00096- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11117>      ADD HYD                1. 0 02: ST2- 1N     326. 12      6. 061 No_date    28: 35    27. 67   n/ a      . 000
11118>                        +    1. 0 02: A7- STR     3. 51       . 199 No_date    28: 21    64. 42   n/ a      . 000
11119>                        +    1. 0 02: A7- OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11120>                        +    1. 0 02: ST3STR       . 71       . 063 No_date    28: 11    50. 67   n/ a      . 000
11121>                        +    1. 0 02: ST3OVF       . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11122>                       SUM=  1. 0 01: PT2ST3     330. 34      6. 299 No_date    28: 33    28. 11   n/ a      . 000
11123> R0050: C00097- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11124>      ROUTE CHANNEL     - >    1. 0 02: PT2ST3     330. 34      6. 299 No_date    28: 33    28. 11   n/ a      . 000
11125>       [ RDT= 1. 00] out <-      1. 0 01: DRAI N2    330. 34      5. 789 No_date    28: 58    28. 11   n/ a      . 000
11126>       [ L/ S/ n= 592. / . 230/ . 043]
11127>       [ Vmx= . 593: Dmx= 1. 152]
11128> R0050: C00098- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11129>      CONTINUOUS NASHYD      1. 0 01: D2          2. 28       . 074 No_date    29: 02    43. 70   . 536      . 000
11130>       [ CN= 84. 0: N= 3. 00: Tp= . 99]
11131>       [ IaREC= 4. 00: SM N= 21. 09: SMX=140. 62: SK= . 010]
11132>       [ InterEventTime= 12. 00]
11133> R0050: C00099- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11134>      CONTINUOUS STANDHYD    1. 0 01: A17        12. 04      2. 163 No_date    28: 03    64. 42   . 790      . 000
11135>       [ XI M= . 68: TI M= . 85]
11136>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
11137>       [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11138>       [ Impervious    area: IAmp= 1. 57: SLPI=  . 50: LGI=  491. : MNI= . 013: SCI=    . 0]
11139>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11140> R0050: C00100- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11141>      ROUTE RESERVOIR - >    1. 0 02: A17        12. 04      2. 163 No_date    28: 03    64. 42   n/ a      . 000
11142>                        out <=    1. 0 01: A17STR     12. 04       . 654 No_date    28: 27    64. 42   n/ a      . 000
11143>                     overflow <=    1. 0 03: A17OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11144>       { MuSt ol ked=. 3445E+ 00  m3,  Tot Ov f Vol =. 0000E+ 00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
11145> R0050: C00101- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11146>      CONTINUOUS STANDHYD    1. 0 01: ST- 4        . 35       . 063 No_date    28: 00    50. 67   . 622      . 000
11147>       [ XI M= . 46: TI M= . 57]
11148>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
11149>       [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11150>       [ Impervious    area: IAmp= 1. 57: SLPI=  . 50: LGI=  84. : MNI= . 013: SCI=    . 0]
11151>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11152> R0050: C00102- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11153>      ROUTE RESERVOIR - >    1. 0 02: ST- 4        . 35       . 063 No_date    28: 00    50. 67   n/ a      . 000
11154>                        out <=    1. 0 01: ST4STR      . 35       . 031 No_date    28: 10    50. 67   n/ a      . 000
11155>                     overflow <=    1. 0 03: ST4OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11156>       { MuSt ol ked=. 2719E- 02  m3,  Tot Ov f Vol =. 0000E+ 00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
11157> R0050: C00103- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11158>      CONTINUOUS STANDHYD    1. 0 01: A18         5. 30      1. 036 No_date    28: 01    64. 42   . 790      . 000
11159>       [ XI M= . 68: TI M= . 85]
11160>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
11161>       [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11162>       [ Impervious    area: IAmp= 1. 57: SLPI=  . 50: LGI=  326. : MNI= . 013: SCI=    . 0]
11163>       [ IaREC mp=  4. 00: IaREC per=  4. 00]
11164> R0050: C00104- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11165>      ROUTE RESERVOIR - >    1. 0 02: A18         5. 30      1. 036 No_date    28: 01    64. 42   n/ a      . 000
11166>                        out <=    1. 0 01: A18STR      5. 30       . 300 No_date    28: 22    64. 42   n/ a      . 000
11167>                     overflow <=    1. 0 03: A18OVF      . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11168>       { MuSt ol ked=. 1532E+ 00  m3,  Tot Ov f Vol =. 0000E+ 00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
11169> R0050: C00105- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
11170>      ADD HYD                1. 0 02: DRAI N2    330. 34      5. 789 No_date    28: 58    28. 11   n/ a      . 000
11171>                        +    1. 0 02: D2          2. 28       . 074 No_date    29: 02    43. 70   n/ a      . 000
11172>                        +    1. 0 02: A17STR     12. 04       . 654 No_date    28: 27    64. 42   n/ a      . 000
11173>                        +    1. 0 02: A17OVF       . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11174>                        +    1. 0 02: ST4STR       . 35       . 031 No_date    28: 10    50. 67   n/ a      . 000
11175>                        +    1. 0 02: ST4OVF       . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11176>                        +    1. 0 02: A18STR      5. 30       . 300 No_date    28: 22    64. 42   n/ a      . 000
11177>                        +    1. 0 02: A18OVF       . 00       . 000 No_date    0: 00      . 00
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11221> R0050: C00113-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11222>        CONTINUOUS STANDHYD     1.0 01: STRAND          7.59     1.038 No_date   28:09   62.95 .772     .000
11223>          [XI M=.64: TI M=.85]
11224>          [Horton parameters: Fo=.76 20: Fc=.13 20: DCAY=4.14:   Fi=.00]
11225>          [Pervious       area: IAper=.4 67: SLPP=.50: LGP=  40. : MNP=.250: SCP=    .0]
11226>          [Impervious     area: IAimp=.1 57: SLPI=.50: LGI=1230. : MNI=.013: SCI=    .0]
11227>          [IaRECmp=  4.00: IaRECper=   4.00]
11228> R0050: C00114-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11229>        ROUTE RESERVOIR ->      1.0 02: STRAND          7.59     1.038 No_date   28:09   62.95  n/a      .000
11230>                        out <=   1.0 01: S-POND         7.59      .137 No_date   29:13   62.95  n/a      .000
11231>                    overflow <=  1.0 03: S-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11232>          [MxStOked=.31159E+00   m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11233> R0050: C00115-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11234>        ADD HYD                 1.0 02: ST5-E           356.68    6.575 No_date   29:09   30.51  n/a      .000
11235>                            +   1.0 02: S-POND          7.59      .137 No_date   29:13   62.95  n/a      .000
11236>                            +   1.0 02: S-OVF            .00      .000 No_date   0:00     .00  n/a      .000
11237>                        SUM=    1.0 01: SSAOUT          364.27    6.711 No_date   29:09   31.19  n/a      .000
11238> R0050: C00116-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11239>        SAVE HYD                1.0 01: SSAOUT          364.27    6.711 No_date   29:09   31.19  n/a      .000
11240>          fname: SSAOUT.0050
11241>          remark: SSAOUT
11242> R0050: C00117-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11243>        CONTINUOUS STANDHYD     1.0 01: Area-A           66.75    8.917 No_date   28:08   61.83 .759     .000
11244>          [XI M=.64: TI M=.85]
11245>          [Horton parameters: Fo=.76 20: Fc=.13 20: DCAY=4.14:   Fi=.00]
11246>          [Pervious       area: IAper=.4 67: SLPP=.50: LGP=  50. : MNP=.250: SCP=    .0]
11247>          [Impervious     area: IAimp=.1 57: SLPI=.50: LGI=1155. : MNI=.013: SCI=    .0]
11248>          [IaRECmp=  4.00: IaRECper=   4.00]
11249> R0050: C00118-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11250>        SAVE HYD                1.0 01: Area-A           66.75    8.917 No_date   28:08   61.83  n/a      .000
11251>          fname: Area-A.0050
11252>          remark: SMWF-A Inflow
11253> R0050: C00119-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11254>        ROUTE RESERVOIR ->      1.0 02: Area-A           66.75    8.917 No_date   28:08   61.83  n/a      .000
11255>                        out <=   1.0 01: SWMF-A          66.75    1.070 No_date   29:16   61.83  n/a      .000
11256>                    overflow <=  1.0 03: SWMOVF           .00      .000 No_date   0:00     .00  n/a      .000
11257>          [MxStOked=.2845E+01    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11258> R0050: C00120-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11259>        SAVE HYD                1.0 01: SWMF-A           66.75    1.070 No_date   29:16   61.83  n/a      .000
11260>          fname: SWMF-A.0050
11261>          remark: SMWF-A Outflow
11262> R0050: C00121-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11263>        ADD HYD                 1.0 02: SSAOUT          364.27    6.711 No_date   29:09   31.19  n/a      .000
11264>                            +   1.0 02: SWMF-A          66.75    1.070 No_date   29:16   61.83  n/a      .000
11265>                            +   1.0 02: SWMOVF           .00      .000 No_date   0:00     .00  n/a      .000
11266>                        SUM=    1.0 01: PT4ST5          431.02    7.776 No_date   29:10   35.93  n/a      .000
11267> R0050: C00122-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11268>        CONTINUOUS STANDHYD     1.0 01: C6               1.87     .395 No_date   28:01   64.42 .790     .000
11269>          [XI M=.68: TI M=.85]
11270>          [Horton parameters: Fo=.76 20: Fc=.13 20: DCAY=4.14:   Fi=.00]
11271>          [Pervious       area: IAper=.4 67: SLPP=.50: LGP=  50. : MNP=.250: SCP=    .0]
11272>          [Impervious     area: IAimp=.1 57: SLPI=.50: LGI=  193. : MNI=.013: SCI=    .0]
11273>          [IaRECmp=  4.00: IaRECper=   4.00]
11274> R0050: C00123-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11275>        ROUTE RESERVOIR ->      1.0 02: C6               1.87     .395 No_date   28:01   64.42  n/a      .000
11276>                        out <=   1.0 01: C6-STR          1.87     .110 No_date   28:18   64.42  n/a      .000
11277>                    overflow <=  1.0 03: C6-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11278>          [MxStOked=.5452E-01    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11279> R0050: C00124-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11280>        CONTINUOUS STANDHYD     1.0 01: C7               1.62     .347 No_date   28:00   64.42 .790     .000
11281>          [XI M=.68: TI M=.85]
11282>          [Horton parameters: Fo=.76 20: Fc=.13 20: DCAY=4.14:   Fi=.00]
11283>          [Pervious       area: IAper=.4 67: SLPP=.50: LGP=  50. : MNP=.250: SCP=    .0]
11284>          [Impervious     area: IAimp=.1 57: SLPI=.50: LGI=  180. : MNI=.013: SCI=    .0]
11285>          [IaRECmp=  4.00: IaRECper=   4.00]
11286> R0050: C00125-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11287>        ROUTE RESERVOIR ->      1.0 02: C7               1.62     .347 No_date   28:00   64.42  n/a      .000
11288>                        out <=   1.0 01: C7-STR          1.62     .096 No_date   28:17   64.42  n/a      .000
11289>                    overflow <=  1.0 03: C7-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11290>          [MxStOked=.4698E-01    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11291> R0050: C00126-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11292>        CONTINUOUS STANDHYD     1.0 01: ST-6              .41     .073 No_date   28:00   50.67 .622     .000
11293>          [XI M=.46: TI M=.57]
11294>          [Horton parameters: Fo=.76 20: Fc=.13 20: DCAY=4.14:   Fi=.00]
11295>          [Pervious       area: IAper=.4 67: SLPP=.50: LGP=  50. : MNP=.250: SCP=    .0]
11296>          [Impervious     area: IAimp=.1 57: SLPI=.50: LGI=   91. : MNI=.013: SCI=    .0]
11297>          [IaRECmp=  4.00: IaRECper=   4.00]
11298> R0050: C00127-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11299>        ROUTE RESERVOIR ->      1.0 02: ST-6              .41     .073 No_date   28:00   50.67  n/a      .000
11300>                        out <=   1.0 01: ST6STR           .41     .036 No_date   28:10   50.67  n/a      .000
11301>                    overflow <=  1.0 03: ST6OVF           .00      .000 No_date   0:00     .00  n/a      .000
11302>          [MxStOked=.3103E-02    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11303> R0050: C00128-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11304>        ADD HYD                 1.0 02: PT4ST5          431.02    7.776 No_date   29:10   35.93  n/a      .000
11305>                            +   1.0 02: C6-STR          1.87     .110 No_date   28:18   64.42  n/a      .000
11306>                            +   1.0 02: C6-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11307>                            +   1.0 02: C7-STR          1.62     .096 No_date   28:17   64.42  n/a      .000
11308>                            +   1.0 02: C7-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11309>                            +   1.0 02: ST6STR           .41     .036 No_date   28:10   50.67  n/a      .000
11310>                            +   1.0 02: ST6OVF           .00      .000 No_date   0:00     .00  n/a      .000
11311>                        SUM=    1.0 01: PT5ST6          434.92    7.904 No_date   29:09   36.17  n/a      .000
11312> R0050: C00129-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11313>        ROUTE CHANNEL   ->      1.0 02: PT5ST6          434.92    7.904 No_date   29:09   36.17  n/a      .000
11314>          [RDT=  1.00] out <-     1.0 01: DRAIN4          434.92    7.615 No_date   29:20   36.17  n/a      .000
11315>          [L/S/n=  324./ .100/ .043]
11316>          [Vmx=   .490: Dmx=  1.531]
11317> R0050: C00130-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11318>        CONTINUOUS NASHYD       1.0 01: D1               1.73     .097 No_date   28:34   50.14 .615     .000
11319>          [CN= 88. 0: N= 3. 00: Tp=   .60]
11320>          [IaREC= 4. 00: SM N= 14. 94:  SMX= 99. 61:  SKK= .010]
11321>          [InterEvent Time=  12. 00]
11322> R0050: C00131-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11323>        CONTINUOUS STANDHYD     1.0 01: Area-B           24.04    4.418 No_date   28:02   60.51 .742     .000
11324>          [XI M=.62: TI M=.77]
11325>          [Horton parameters: Fo=.76 20: Fc=.13 20: DCAY=4.14:   Fi=.00]
11326>          [Pervious       area: IAper=.4 67: SLPP=1.40: LGP=  50. : MNP=.250: SCP=    .0]
11327>          [Impervious     area: IAimp=.1 57: SLPI=1.40: LGI=  693. : MNI=.013: SCI=    .0]
11328>          [IaRECmp=  4.00: IaRECper=   4.00]
11329> R0050: C00132-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11330>        ROUTE RESERVOIR ->      1.0 02: Area-B           24.04    4.418 No_date   28:02   60.51  n/a      .000
11331>                        out <=   1.0 01: SWMF-B          24.04     .566 No_date   28:42   60.51  n/a      .000
11332>                    overflow <=  1.0 03: SWMOVF           .00      .000 No_date   0:00     .00  n/a      .000
11333>          [MxStOked=.8944E+00    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11334> R0050: C00133-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11335>        ADD HYD                 1.0 02: DRAIN4          434.92    7.615 No_date   29:20   36.17  n/a      .000
11336>                            +   1.0 02: D1               1.73     .097 No_date   28:34   50.14  n/a      .000
11337>                            +   1.0 02: SWMF-B          24.04     .566 No_date   28:42   60.51  n/a      .000
11338>                            +   1.0 02: SWMOVF           .00      .000 No_date   0:00     .00  n/a      .000
11339>                        SUM=    1.0 01: D1-EX           460.69    8.190 No_date   29:19   37.49  n/a      .000
11340> R0050: C00134-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11341>        ROUTE CHANNEL   ->      1.0 02: D1-EX           460.69    8.190 No_date   29:19   37.49  n/a      .000
11342>          [RDT=  1.00] out <-     1.0 01: DRAIN5          460.69    8.038 No_date   29:27   37.49  n/a      .000
11343>          [L/S/n=  413./ .160/ .033]
11344>          [Vmx=   .675: Dmx=  1.051]
11345> R0050: C00135-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11346>        CONTINUOUS NASHYD       1.0 01: D5               1.90     .089 No_date   28:40   47.27 .580     .000
11347>          [CN= 86. 0: N= 3. 00: Tp=   .69]
11348>          [IaREC= 4. 00: SM N= 17. 43:  SMX= 116. 21:  SKK= .010]
11349>          [InterEvent Time=  12. 00]
11350> R0050: C00136-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11351>        CONTINUOUS NASHYD       1.0 01: O 13SDF          9.74     .578 No_date   28:21   44.42 .545     .000
11352>          [CN= 81. 0: N= 3. 00: Tp=   .43]
11353>          [IaREC= 4. 00: SM N= 25. 21:  SMX= 168. 09:  SKK= .010]
11354>          [InterEvent Time=  12. 00]
11355> R0050: C00137-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11356>        ROUTE RESERVOIR ->      1.0 02: O 13SDF          9.74     .578 No_date   28:21   44.42  n/a      .000
11357>                        out <=   1.0 01: SDF             9.74     .061 No_date   30:55   44.42  n/a      .000
11358>                    overflow <=  1.0 03: OVFSDF           .00      .000 No_date   0:00     .00  n/a      .000
11359>          [MxStOked=.2427E+00    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11360> R0050: C00138-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11361>        ADD HYD                 1.0 02: DRAIN5          460.69    8.038 No_date   29:27   37.49  n/a      .000
11362>                            +   1.0 02: D5               1.90     .089 No_date   28:40   47.27  n/a      .000
11363>                            +   1.0 02: SDF              9.74     .061 No_date   30:55   44.42  n/a      .000
11364>                        SUM=    1.0 01: PT6MC           472.33    8.151 No_date   29:27   37.68  n/a      .000
11365> R0050: C00139-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11366>        CONTINUOUS NASHYD       1.0 01: O 15              10.67     .800 No_date   28:13   43.28 .531     .000
11367>          [CN= 82. 0: N= 3. 00: Tp=   .30]
11368>          [IaREC= 4. 00: SM N= 23. 09:  SMX= 153. 94:  SKK= .010]
11369>          [InterEvent Time=  12. 00]
11370> R0050: C00140-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11371>        ADD HYD                 1.0 02: PT6MC           472.33    8.151 No_date   29:27   37.68  n/a      .000
11372>                            +   1.0 02: O 15            10.67     .800 No_date   28:13   43.28  n/a      .000
11373>                        SUM=    1.0 01: M C             483.00    8.281 No_date   29:26   37.80  n/a      .000
11374> R0050: C00141-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11375>        ROUTE CHANNEL   ->      1.0 02: M C             483.00    8.281 No_date   29:26   37.80  n/a      .000
11376>          [RDT=  1.00] out <-     1.0 01: O 14Ch          483.00    7.494 No_date   29:58   37.80  n/a      .000
11377>          [L/S/n=  845./ .100/ .033]
11378>          [Vmx=   .549: Dmx=  1.780]
11379> R0050: C00142-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11380>        CONTINUOUS NASHYD       1.0 01: O 14              5.00     .616 No_date   28:04   43.28 .531     .000
11381>          [CN= 82. 0: N= 3. 00: Tp=   .13]
11382>          [IaREC= 4. 00: SM N= 23. 09:  SMX= 153. 94:  SKK= .010]
11383>          [InterEvent Time=  12. 00]
11384> R0050: C00143-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11385>        ADD HYD                 1.0 02: O 14Ch          483.00    7.494 No_date   29:58   37.80  n/a      .000
11386>                            +   1.0 02: O 14            5.00     .616 No_date   28:04   43.28  n/a      .000
11387>                        SUM=    1.0 01: OKEEFE          488.00    7.533 No_date   29:58   37.86  n/a      .000
11388> #*************************************************************************
11389> #   Okeefe Pond
11390> #   - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
11391> #     and a ratio of the catchment area to the West Clarke pond rating curve
11392> #     from the MSS for the next coordinates
11393> #*************************************************************************
11394> R0050: C00144-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11395>        CONTINUOUS NASHYD       1.0 01: S-1-D2           18.67     .488 No_date   29:12   39.91 .490     .000
11396>          [CN= 77. 0: N= 3. 00: Tp=  1.12]
11397>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11398>          [InterEvent Time=  12. 00]
11399> R0050: C00145-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11400>        CONTINUOUS NASHYD       1.0 01: S-1-D3            6.79     .161 No_date   29:23   39.91 .490     .000
11401>          [CN= 77. 0: N= 3. 00: Tp=  1.28]
11402>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11403>          [InterEvent Time=  12. 00]
11404> R0050: C00146-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11405>        ADD HYD                 1.0 02: N_OK            53064.36  125.374 No_date   33:43   33.58  n/a      .000
11406>                            +   1.0 02: OKEEFE          488.00    7.533 No_date   29:58   37.86  n/a      .000
11407>                            +   1.0 02: S-1-D2           18.67     .488 No_date   29:12   39.91  n/a      .000
11408>                            +   1.0 02: S-1-D3            6.79     .161 No_date   29:23   39.91  n/a      .000
11409>                        SUM=    1.0 01: SN_OK           53577.82  128.132 No_date   33:19   33.62  n/a      .000
11410> R0050: C00147-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11411>        SAVE HYD                1.0 01: SN_OK           53577.82  128.132 No_date   33:19   33.62  n/a      .000
11412>          fname: SN_OK.0050
11413>          remark: Total Flows at Okeefe Drain
11414> #
11415> # Hydrograph from Node Okeefe routed to Node at Foster Drain
11416> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
11417> #
11418> R0050: C00148-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11419>        ROUTE CHANNEL   ->      1.0 02: SN_OK           53577.82  128.132 No_date   33:19   33.62  n/a      .000
11420>          [RDT=  1.00] out <-     1.0 01: N_FO            53577.82  127.740 No_date   33:20   33.62  n/a      .000
11421>          [L/S/n= 1183./ .076/ .035]
11422>          [Vmx=   1.239: Dmx=  3.375]
11423> #*************************************************************************
11424> #     Catchment  FOSTER
11425> #     - To Foster ditch (north of the Jock)
11426> #     - Partially developed (medium density); remining agricultural
11427> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CHEMHILL, Aug 2013.
11428> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
11429> #     - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
11430> #*************************************************************************
11431> R0050: C00149-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11432>        CONTINUOUS STANDHYD     1.0 01: FOSTER          325.44    32.213 No_date   28:11   58.69 .720     .000
11433>          [XI M=.55: TI M=.55]
11434>          [LOSS= 2 : CN= 74.0]
11435>          [Pervious       area: IAper=.4 67: SLPP=.50: LGP=  40. : MNP=.250: SCP=    .0]
11436>          [Impervious     area: IAimp=.1 57: SLPI=.50: LGI=1473. : MNI=.013: SCI=    .0]
11437>          [IaRECmp=  4.00: IaRECper=   4.00]
11438>          [SMN= 36. 67:  SMX= 244. 49:  SKK= .010]
11439> #*************************************************************************
11440> #     Foster Pond
11441> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
11442> #       and a ratio of the catchment area to the West Clarke pond rating curve
11443> #       from the MSS for the next coordinates
11444> #*************************************************************************
11445> R0050: C00150-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11446>        ROUTE RESERVOIR ->      1.0 02: FOSTER          325.44    32.213 No_date   28:11   58.69  n/a      .000
11447>                        out <=   1.0 01: P_FOS          325.44     8.155 No_date   29:03   58.69  n/a      .000
11448>                    overflow <=  1.0 03: FO-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11449>          [MxStOked=.7887E+01    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11450> R0050: C00151-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11451>        ADD HYD                 1.0 02: P_FOS           325.44    8.155 No_date   29:03   58.69  n/a      .000
11452>                            +   1.0 02: FO-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11453>                        SUM=    1.0 01: FOSTER-OUT      325.44    8.155 No_date   29:03   58.69  n/a      .000
11454> #*************************************************************************
11455> R0050: C00152-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11456>        CONTINUOUS STANDHYD     1.0 01: W_CLAR_BRA       73.29    10.462 No_date   28:05   63.49 .779     .000
11457>          [XI M=.60: TI M=.65]
11458>          [LOSS= 2 : CN= 77. 0]
11459>          [Pervious       area: IAper=.4 67: SLPP=1.00: LGP=  40. : MNP=.250: SCP=    .0]
11460>          [Impervious     area: IAimp=.1 57: SLPI=.50: LGI=  699. : MNI=.013: SCI=    .0]
11461>          [IaRECmp=  4.00: IaRECper=   4.00]
11462>          [SMN= 31. 15:  SMX= 207. 66:  SKK= .010]
11463> R0050: C00153-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11464>        ROUTE RESERVOIR ->      1.0 02: W_CLAR_BRA       73.29    10.462 No_date   28:05   63.49  n/a      .000
11465>                        out <=   1.0 01: MS_P10          73.29     1.204 No_date   29:09   63.49  n/a      .000
11466>                    overflow <=  1.0 03: P10-OVF          .00      .000 No_date   0:00     .00  n/a      .000
11467>          [MxStOked=.7887E+01    m3,  Tot Ovf Vol =.0000E+00    m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
11468> R0050: C00154-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11469>        CONTINUOUS NASHYD       1.0 01: S-1-FO-D2         4.94     .131 No_date   29:10   39.91 .490     .000
11470>          [CN= 77. 0: N= 3. 00: Tp=  1.10]
11471>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11472>          [InterEvent Time=  12. 00]
11473> R0050: C00155-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11474>        ADD HYD                 1.0 02: FOSTER-OUT      325.44    8.155 No_date   29:03   58.69  n/a      .000
11475>                            +   1.0 02: S-1-FO-D2         4.94     .131 No_date   29:10   39.91  n/a      .000
11476>                        SUM=    1.0 01: 980             330.38    8.285 No_date   29:03   58.41  n/a      .000
11477> R0050: C00156-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11478>        SAVE HYD                1.0 01: 980             330.38    8.285 No_date   29:03   58.41  n/a      .000
11479>          fname: 980.0050
11480>          remark: Total Flows at Station 980 on Foster Drain
11481> #
11482> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
11483> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
11484> #
11485> R0050: C00157-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11486>        ROUTE CHANNEL   ->      1.0 02: 980             330.38    8.285 No_date   29:03   58.41  n/a      .000
11487> *      [RDT=  1.00] out <-     1.0 01: 980-out         330.38    7.901 No_date   29:23   58.41  n/a      .000
11488>          [L/S/n=  460./ .043/ .035]
11489>          [Vmx=   .590: Dmx=  1.605]
11490> R0050: C00158-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11491>        CONTINUOUS NASHYD       1.0 01: S-1-FO-DI         5.11     .135 No_date   29:10   39.91 .490     .000
11492>          [CN= 77. 0: N= 3. 00: Tp=  1.10]
11493>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11494>          [InterEvent Time=  12. 00]
11495> R0050: C00159-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11496>        ADD HYD                 1.0 02: 980-out         330.38    7.901 No_date   29:23   58.41  n/a      .000
11497>                            +   1.0 02: S-1-FO-DI         5.11     .135 No_date   29:10   39.91  n/a      .000
11498>                        SUM=    1.0 01: 520             335.49    8.034 No_date   29:23   58.13  n/a      .000
11499> R0050: C00160-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11500>        SAVE HYD                1.0 01: 520             335.49    8.034 No_date   29:23   58.13  n/a      .000
11501>          fname: 520.0050
11502>          remark: Total Flows at Sation 520 on Foster Drain
11503> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
11504> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
11505> #
11506> R0050: C00161-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11507>        ROUTE CHANNEL   ->      1.0 02: 520             335.49    8.034 No_date   29:23   58.13  n/a      .000
11508>          [RDT=  1.00] out <-     1.0 01: 520-out         335.49    7.994 No_date   29:28   58.13  n/a      .000
11509>          [L/S/n=  860./ .587/ .035]
11510>          [Vmx=  1.541: Dmx=   .767]
11511> R0050: C00162-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11512>        CONTINUOUS NASHYD       1.0 01: S-1-FO-F-D        14.96     .422 No_date   29:03   39.91 .490     .000
11513>          [CN= 77. 0: N= 3. 00: Tp=  1.01]
11514>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11515>          [InterEvent Time=  12. 00]
11516> R0050: C00163-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11517>        CONTINUOUS STANDHYD     1.0 01: S-1-DI            5.27     1.023 No_date   28:00   63.95 .785     .000
11518>          [XI M=.65: TI M=.65]
11519>          [LOSS= 2 : CN= 75. 0]
11520>          [Pervious       area: IAper=.4 67: SLPP=2.00: LGP=  40. : MNP=.250: SCP=    .0]
11521>          [Impervious     area: IAimp=.1 57: SLPI=.75: LGI=  187. : MNI=.013: SCI=    .0]
11522>          [IaRECmp=  4.00: IaRECper=   4.00]
11523>          [SMN= 33. 81:  SMX= 225. 43:  SKK= .010]
11524> R0050: C00164-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11525>        CONTINUOUS NASHYD       1.0 01: S-1-A             75.88     3.042 No_date   28:36   39.91 .490     .000
11526>          [CN= 77. 0: N= 3. 00: Tp=   .62]
11527>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11528>          [InterEvent Time=  12. 00]
11529> R0050: C00165-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11530>        CONTINUOUS NASHYD       1.0 01: W_CLAR_UND        35.65     .943 No_date   29:10   39.91 .490     .000
11531>          [CN= 77. 0: N= 3. 00: Tp=  1.10]
11532>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11533>          [InterEvent Time=  12. 00]
11534> R0050: C00166-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11535>        ADD HYD                 1.0 02: N_FO            53577.82  127.740 No_date   33:20   33.62  n/a      .000
11536>                            +   1.0 02: 520-out         335.49    7.994 No_date   29:28   58.13  n/a      .000
11537>                            +   1.0 02: MS_P10          73.29     1.204 No_date   29:09   63.49  n/a      .000
11538>                            +   1.0 02: P10-OVF           .00      .000 No_date   0:00     .00  n/a      .000
11539>                            +   1.0 02: W_CLAR_UND        35.65     .943 No_date   29:10   39.91  n/a      .000
11540>                            +   1.0 02: S-1-FO-F-D        14.96     .422 No_date   29:03   39.91  n/a      .000
11541>                            +   1.0 02: S-1-DI            5.27     1.023 No_date   28:00   63.95  n/a      .000
11542>                            +   1.0 02: S-1-A             75.88     3.042 No_date   28:36   39.91  n/a      .000
11543>                        SUM=    1.0 01: SN_FO           54118.36  132.970 No_date   33:19   33.83  n/a      .000
11544> R0050: C00167-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11545>        SAVE HYD                1.0 01: SN_FO           54118.36  132.970 No_date   33:19   33.83  n/a      .000
11546>          fname: SN_FO.0050
11547>          remark: Total Flows at Foster Drain
11548> # Hydrograph from Node Foster routed to Node at Cedarview Road
11549> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
11550> #
11551> R0050: C00168-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11552>        ROUTE CHANNEL   ->      1.0 02: SN_FO           54118.36  132.970 No_date   33:19   33.83  n/a      .000
11553> *      [RDT=  1.00] out <-     1.0 01: N_CE            54118.36  132.590 No_date   33:34   33.83  n/a      .000
11554>          [L/S/n=  159./ .082/ .035]
11555>          [Vmx=  1.439: Dmx=  4.175]
11556> #*************************************************************************
11557> #     Catchment  S-1
11558> #     - To Jock River (north and south of Jock)
11559> #     - Primarily agricultural fields; portion of sand quarry
11560> #*************************************************************************
11561> R0050: C00169-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11562>        CONTINUOUS NASHYD       1.0 01: S-1-B             55.36     2.770 No_date   28:23   39.91 .490     .000
11563>          [CN= 77. 0: N= 3. 00: Tp=   .45]
11564>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11565>          [InterEvent Time=  12. 00]
11566> #     -  JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B. Change their TP values based on the new areas
11567> #     -  JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and
11568> #     -  JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
11569> R0050: C00170-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11570>        CONTINUOUS NASHYD       1.0 01: S-1-DI           21.67     .587 No_date   29:08   39.91 .490     .000
11571>          [CN= 77. 0: N= 3. 00: Tp=  1.07]
11572>          [IaREC= 4. 00: SM N= 31. 15:  SMX= 207. 66:  SKK= .010]
11573>          [InterEvent Time=  12. 00]
11574> R0050: C00171
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11595> #     - To West Clarke Drain (south of the Jock)
11596> #     - Subdivision with 43% imp. as per Barrhaven South MSS
11597> #     - 2020-11-30 update CLARKE Tributary Drainage Area to = 121 ha based on P598(04)-11
11598> #     - 2020-11-30 split CLARKE Drainage Area to MVCOR and ALL
11599> #*************************************************************************
11600> R0050: C00175-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11601>      CONTINUOUS STANDHYD     1. 0 01: W_CLAR_MI      1. 77      .319 No_date   28:00   59. 44 .729     .000
11602>        [ XI M%: 46: TIMP=. 59]
11603>        [ LOSS= 2 : CN= 77. 0]
11604>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11605>        [ Impervious    area: I Aimp=. 57: SLPI =1. 00: LGI= 109. : MNI =. 013: SCI=    .0]
11606>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11607>        [ SM N= 31. 15:  SM X%=207. 66:  SK=  . 010]
11608> # 5-Year + 12% Capture
11609> R0050: C00176-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11610>      ROUTE RESERVOIR - >     1. 0 02: W_CLAR_MI      1. 77      .319 No_date   28:00   59. 44   n/a     .000
11611>                        out <=    1. 0 01: W_CLAR_Min     1. 70      .213 No_date   27:53   59. 44   n/a     .000
11612>                      overflow <=    1. 0 02: W_CLAR_MI      .08      .102 No_date   28:01   59. 44   n/a     .000
11613>        [ Mi St o l ked=. 1125E-03   m3,  Tot Or f Vol =. 4485E-02   m3,  N- Or f =     1,  Tot Dur Or f =     0. hr s]
11614> R0050: C00177-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11615>      CONTINUOUS STANDHYD     1. 0 01: W_CLAR_ALL    119. 40    17. 358 No_date   28:04   63. 49 .949     .000
11616>        [ XI M%: 60: TIMP=. 65]
11617>        [ LOSS= 2 : CN= 77. 0]
11618>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11619>        [ Impervious    area: I Aimp=. 57: SLPI =1. 00: LGI= 892. : MNI =. 013: SCI=    .0]
11620>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11621>        [ SM N= 31. 15:  SM X%=207. 66:  SK=  . 010]
11622> R0050: C00178-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11623>      ADD HYD                 1. 0 02: W_CLAR_ALL    119. 40    17. 358 No_date   28:04   63. 49   n/a     .000
11624>                            +     1. 0 02: W_CLAR_MI      .08      .102 No_date   28:01   59. 44   n/a     .000
11625>                      SUM=    1. 0 01: W_CLAR        119. 47    17. 371 No_date   28:04   63. 49   n/a     .000
11626> R0050: C00179-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11627>      SAVE HYD                1. 0 01: W_CLAR        119. 47    17. 371 No_date   28:04   63. 49   n/a     .000
11628>        fname : W_CLAR. 0050
11629>        remark: Total Flows to West Clarke
11630> #*************************************************************************
11631> #  West Clarke Pond 2
11632> #     - Rating curve obtained from Barrhaven South MSS modeling
11633> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
11634> #*************************************************************************
11635> R0050: C00180-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11636>      ROUTE RESERVOIR - >     1. 0 02: W_CLAR        119. 47    17. 371 No_date   28:04   63. 49   n/a     .000
11637>                        out <=    1. 0 01: MS_P2         119. 47    10. 246 No_date   28:16   63. 49   n/a     .000
11638>                      overflow <=    1. 0 03: P2- OVF         .00      .000 No_date   0: 00    .00   n/a     .000
11639>        [ Mi St o l ked=. 3076E01   m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11640> #*************************************************************************
11641> R0050: C00181-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11642>      ADD HYD                 1. 0 02: SN_CE         54118. 36  132. 590 No_date   33:34   33. 83   n/a     .000
11643>                            +     1. 0 02: S- 1- D4       3. 28      .087 No_date   29:10   39. 91   n/a     .000
11644>                            +     1. 0 02: S- 1- D5      12. 84      .340 No_date   29:10   39. 91   n/a     .000
11645>                            +     1. 0 02: MS_P2         119. 47    10. 246 No_date   28:16   63. 49   n/a     .000
11646>                            +     1. 0 02: P2- OVF         .00      .000 No_date   0: 00    .00   n/a     .000
11647>                      SUM=    1. 0 01: SN_CE         54253. 95  133. 524 No_date   33:22   33. 90   n/a     .000
11648> R0050: C00182-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11649>      SAVE HYD                1. 0 01: SN_CE         54253. 95  133. 524 No_date   33:22   33. 90   n/a     .000
11650>        fname : SN_CE. 0050
11651>        remark: Total Flows before Station 5737 on Jock River
11652> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
11653> # JFSA 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-1
11654> # JFSA 2021-03-02  change slope to 0.15% instead of 0.075% to stabilize the model
11655> R0050: C00183-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11656>      ROUTE CHANNEL   - >     1. 0 02: SN_CE         54253. 95  133. 524 No_date   33:22   33. 90   n/a     .000
11657> *    [ RDT=  1. 00]  out <-     1. 0 01: 5737          54253. 95  127. 934 No_date   35:32   33. 90   n/a     .000
11658>        [ L/ S/ n=   270. /  . 018/ . 035]
11659>        [ Vmax=   . 826: Dmax=  5. 268]
11660> R0050: C00184-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11661>      ADD HYD                 1. 0 02: 5737          54253. 95  127. 934 No_date   35:32   33. 90   n/a     .000
11662>                            +     1. 0 02: S- 1- D1       21. 67      .587 No_date   29:08   39. 91   n/a     .000
11663>                            +     1. 0 02: S- 1- D6        1. 75      .046 No_date   29:10   39. 91   n/a     .000
11664>                            +     1. 0 02: S- 1- D7        2. 03      .054 No_date   29:10   39. 91   n/a     .000
11665>                      SUM=    1. 0 01: 5002          54279. 41  128. 023 No_date   35:32   33. 90   n/a     .000
11666> R0050: C00185-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11667>      SAVE HYD                1. 0 01: 5002          54279. 41  128. 023 No_date   35:32   33. 90   n/a     .000
11668>        fname : 5002. 0050
11669>        remark: Total Flows before Station 5002 on Jock River
11670> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
11671> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
11672> # JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable
11673> # JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
11674> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
11675> R0050: C00186-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11676>      ROUTE CHANNEL   - >     1. 0 02: 5002          54279. 41  128. 023 No_date   35:32   33. 90   n/a     .000
11677> *    [ RDT=  1. 00]  out <-     1. 0 01: N_WCa         54279. 41  127. 998 No_date   35:39   33. 90   n/a     .000
11678>        [ L/ S/ n=   245. /  . 095/ . 035]
11679>        [ Vmax=  1. 271: Dmax=  2. 986]
11680> R0050: C00187-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11681>      ROUTE CHANNEL   - >     1. 0 02: N_WCa         54279. 41  127. 998 No_date   35:39   33. 90   n/a     .000
11682> *    [ RDT=  1. 00]  out <-     1. 0 01: N_WCb         54279. 41  127. 975 No_date   35:46   33. 90   n/a     .000
11683>        [ L/ S/ n=   245. /  . 095/ . 035]
11684>        [ Vmax=  1. 271: Dmax=  2. 986]
11685> R0050: C00188-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11686>      ROUTE CHANNEL   - >     1. 0 02: N_WCb         54279. 41  127. 975 No_date   35:46   33. 90   n/a     .000
11687> *    [ RDT=  1. 00]  out <-     1. 0 01: N_WC          54279. 41  127. 967 No_date   35:50   33. 90   n/a     .000
11688>        [ L/ S/ n=   245. /  . 095/ . 035]
11689>        [ Vmax=  1. 271: Dmax=  2. 986]
11690> #*************************************************************************
11691> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
11692> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
11693> #
11694> R0050: C00189-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11695>      ROUTE CHANNEL   - >     1. 0 02: N_WC          54279. 41  127. 967 No_date   35:50   33. 90   n/a     .000
11696> *    [ RDT=  1. 00]  out <-     1. 0 01: N_KB          54279. 41  127. 622 No_date   36:14   33. 90   n/a     .000
11697>        [ L/ S/ n=  1020. /  . 050/ . 035]
11698>        [ Vmax=  1. 117: Dmax=  3. 767]
11699> #*************************************************************************
11700> #     Catchment KEN_BU
11701> #     - To Kennedy-Burnett SWM Facility
11702> #     - Outlets to Fraser-Clarke drain (north of the Jock)
11703> #     - Medium density residential subdivision
11704> #*************************************************************************
11705> #*************************************************************************
11706> #  Existing Kennedy-Burnett SWM Facility
11707> #     - Rating curve obtained from URTKBF
11708> #     - Tributary Drainage Area to Pond = 160 ha
11709> #*************************************************************************
11710> R0050: C00190-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11711>      CONTINUOUS STANDHYD     1. 0 01: KB- 01A        40. 82     4. 812 No_date   28:10   33. 07 .406     .000
11712>        [ XI M%: 10: TIMP=. 40]
11713>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11714>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    .0]
11715>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 50: LGI= 522. : MNI =. 013: SCI=    .0]
11716>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11717> R0050: C00191-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11718>      COMPUTE DUALHYD         1. 0 01: KB- 01A        40. 82     4. 812 No_date   28:10   33. 07   n/a     .000
11719>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11720>        Minor System    \     1. 0 03: KB- 01A- MN    40. 82     3. 600 No_date   28:00   33. 14   n/a     .000
11721>        [ Mj Sys St o=. 1012E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11722> R0050: C00192-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11723>      ADD HYD                 1. 0 02: KB- 01A- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11724>                            +     1. 0 02: KB- 01A- MN    40. 82     3. 600 No_date   28:00   33. 14   n/a     .000
11725>                      SUM=    1. 0 01: KB- 01A- S     40. 82     3. 600 No_date   28:00   33. 14   n/a     .000
11726> R0050: C00193-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11727>      CONTINUOUS STANDHYD     1. 0 01: KB- 01B        31. 10     3. 541 No_date   28:07   36. 47 .447     .000
11728>        [ XI M%: 19: TIMP=. 38]
11729>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11730>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 42: LGP=  40. : MNP=. 250: SCP=    .0]
11731>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 42: LGI= 455. : MNI =. 013: SCI=    .0]
11732>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11733> R0050: C00194-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11734>      COMPUTE DUALHYD         1. 0 01: KB- 01B        31. 10     3. 541 No_date   28:07   36. 47   n/a     .000
11735>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11736>        Minor System    \     1. 0 03: KB- 01B- MN    31. 10     1. 585 No_date   27:53   36. 51   n/a     .000
11737>        [ Mj Sys St o=. 2627E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11738> R0050: C00195-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11739>      ADD HYD                 1. 0 02: KB- 01B- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11740>                            +     1. 0 02: KB- 01B- MN    31. 10     1. 585 No_date   27:53   36. 51   n/a     .000
11741>                      SUM=    1. 0 01: KB- 01B- S     31. 10     1. 585 No_date   27:53   36. 51   n/a     .000
11742> R0050: C00196-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11743>      CONTINUOUS STANDHYD     1. 0 01: KB- 01C        13. 78     2. 163 No_date   28:04   37. 72 .463     .000
11744>        [ XI M%: 20: TIMP=. 41]
11745>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11746>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11747>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 50: LGI= 303. : MNI =. 013: SCI=    .0]
11748>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11749> R0050: C00197-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11750>      COMPUTE DUALHYD         1. 0 01: KB- 01C        13. 78     2. 163 No_date   28:04   37. 72   n/a     .000
11751>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11752>        Minor System    \     1. 0 03: KB- 01C- MN    13. 78     1. 350 No_date   27:55   37. 86   n/a     .000
11753>        [ Mj Sys St o=. 5764E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11754> R0050: C00198-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11755>      ADD HYD                 1. 0 02: KB- 01C- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11756>                            +     1. 0 02: KB- 01C- MN    13. 78     1. 350 No_date   27:55   37. 86   n/a     .000
11757>                      SUM=    1. 0 01: KB- 01C- S     13. 78     1. 350 No_date   27:55   37. 86   n/a     .000
11758> R0050: C00199-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11759>      CONTINUOUS STANDHYD     1. 0 01: KB- 03         84. 78    11. 183 No_date   28:07   37. 17 .456     .000
11760>        [ XI M%: 20: TIMP=. 39]
11761>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11762>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11763>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 63: LGI= 752. : MNI =. 013: SCI=    .0]
11764>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11765> R0050: C00200-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11766>      COMPUTE DUALHYD         1. 0 01: KB- 03         84. 78    11. 183 No_date   28:07   37. 17   n/a     .000
11767>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11768>        Minor System    \     1. 0 03: KB- 03- MN     84. 78     5. 270 No_date   27:54   37. 24   n/a     .000
11769>        [ Mj Sys St o=. 6453E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11770> R0050: C00201-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11771>      ADD HYD                 1. 0 02: KB- 03- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11772>                            +     1. 0 02: KB- 03- MN     84. 78     5. 270 No_date   27:54   37. 24   n/a     .000
11773>                      SUM=    1. 0 01: KB- 03- S      84. 78     5. 270 No_date   27:54   37. 24   n/a     .000
11774> R0050: C00202-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11775>      CONTINUOUS STANDHYD     1. 0 01: KB- 04          6. 95     1. 592 No_date   28:00   71. 86 .882     .000
11776>        [ XI M%: 85: TIMP=. 85]
11777>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11778>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11779>        [ Impervious    area: I Aimp=  . 94: SLPI =  . 50: LGI= 215. : MNI =. 013: SCI=    .0]
11780>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11781> R0050: C00203-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11782>      COMPUTE DUALHYD         1. 0 01: KB- 04          6. 95     1. 592 No_date   28:00   71. 86   n/a     .000
11783>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11784>        Minor System    \     1. 0 03: KB- 04- MN       6. 95      .503 No_date   27:44   72. 11   n/a     .000
11785>        [ Mj Sys St o=. 9423E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11786> R0050: C00204-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11787>      ADD HYD                 1. 0 02: KB- 04- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11788>                            +     1. 0 02: KB- 04- MN       6. 95      .503 No_date   27:44   72. 11   n/a     .000
11789>                      SUM=    1. 0 01: KB- 04- S        6. 95      .503 No_date   27:44   72. 11   n/a     .000
11790> R0050: C00205-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11791>      CONTINUOUS STANDHYD     1. 0 01: KB- 05          5. 19     1. 270 No_date   28:00   75. 92 .931     .000
11792>        [ XI M%: 93: TIMP=. 93]
11793>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11794>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11795>        [ Impervious    area: I Aimp=  1. 57: SLPI =  . 50: LGI= 186. : MNI =. 013: SCI=    .0]
11796>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11797> R0050: C00206-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11798>      CONTINUOUS STANDHYD     1. 0 01: KB- 06         12. 93     3. 268 No_date   28:00   73. 20 .898     .000
11799>        [ XI M%: 72: TIMP=. 87]
11800>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11801>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11802>        [ Impervious    area: I Aimp=  . 94: SLPI =4. 75: LGI= 294. : MNI =. 013: SCI=    .0]
11803>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11804> R0050: C00207-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11805>      COMPUTE DUALHYD         1. 0 01: KB- 06         12. 93     3. 268 No_date   28:00   73. 20   n/a     .000
11806>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11807>        Minor System    \     1. 0 03: KB- 06- MN     12. 93     2. 262 No_date   27:52   73. 67   n/a     .000
11808>        [ Mj Sys St o=. 4323E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11809> R0050: C00208-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11810>      ADD HYD                 1. 0 02: KB- 06- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11811>                            +     1. 0 02: KB- 06- MN     12. 93     2. 262 No_date   27:52   73. 67   n/a     .000
11812>                      SUM=    1. 0 01: KB- 06- S      12. 93     2. 262 No_date   27:52   73. 67   n/a     .000
11813> R0050: C00209-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11814>      CONTINUOUS STANDHYD     1. 0 01: KB- 11          4. 03      .921 No_date   28:00   61. 82 .758     .000
11815>        [ XI M%: 68: TIMP=. 68]
11816>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11817>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11818>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI= 164. : MNI =. 013: SCI=    .0]
11819>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11820> R0050: C00210-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11821>      COMPUTE DUALHYD         1. 0 01: KB- 11          4. 03      .921 No_date   28:00   61. 82   n/a     .000
11822>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11823>        Minor System    \     1. 0 03: KB- 11- MN       4. 03      .577 No_date   27:52   62. 10   n/a     .000
11824>        [ Mj Sys St o=. 1581E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11825> R0050: C00211-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11826>      ADD HYD                 1. 0 02: KB- 11- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11827>                            +     1. 0 02: KB- 11- MN       4. 03      .577 No_date   27:52   62. 10   n/a     .000
11828>                      SUM=    1. 0 01: KB- 11- S        4. 03      .577 No_date   27:52   62. 10   n/a     .000
11829> R0050: C00212-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11830>      CONTINUOUS STANDHYD     1. 0 01: S1              4. 99     1. 304 No_date   28:00   75. 92 .931     .000
11831>        [ XI M%: 93: TIMP=. 93]
11832>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11833>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11834>        [ Impervious    area: I Aimp=  1. 57: SLPI =2. 00: LGI= 182. : MNI =. 013: SCI=    .0]
11835>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11836> R0050: C00213-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11837>      CONTINUOUS STANDHYD     1. 0 01: KB- 15          2. 15      .497 No_date   28:00   69. 00 .847     .000
11838>        [ XI M%: 79: TIMP=. 79]
11839>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11840>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11841>        [ Impervious    area: I Aimp=  . 16: SLPI =  . 30: LGI= 120. : MNI =. 013: SCI=    .0]
11842>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11843> R0050: C00214-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11844>      ADD HYD                 1. 0 02: KB- 01A- S      40. 82     3. 600 No_date   28:00   33. 14   n/a     .000
11845>                            +     1. 0 02: KB- 01B- S      31. 10     1. 585 No_date   27:53   36. 51   n/a     .000
11846>                            +     1. 0 02: KB- 01C- S      13. 78     1. 350 No_date   27:55   37. 86   n/a     .000
11847>                            +     1. 0 02: KB- 03- S       84. 78     5. 270 No_date   27:54   37. 24   n/a     .000
11848>                            +     1. 0 02: KB- 04- S        6. 95      .503 No_date   27:44   72. 11   n/a     .000
11849>                            +     1. 0 02: KB- 05          5. 19     1. 270 No_date   28:00   75. 92   n/a     .000
11850>                            +     1. 0 02: KB- 06- S       12. 93     2. 262 No_date   27:52   73. 67   n/a     .000
11851>                            +     1. 0 02: KB- 11- S        4. 03      .577 No_date   27:52   62. 10   n/a     .000
11852>                            +     1. 0 02: KB- 15          2. 15      .497 No_date   28:00   69. 00   n/a     .000
11853>                            +     1. 0 02: S1              4. 99     1. 304 No_date   28:00   75. 92   n/a     .000
11854>                      SUM=    1. 0 01: KB- P1        206. 72    18. 218 No_date   28:00   42. 53   n/a     .000
11855> R0050: C00215-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11856>      ROUTE RESERVOIR - >     1. 0 02: KB- P1        206. 72    18. 218 No_date   28:00   42. 53   n/a     .000
11857>                        out <=    1. 0 01: KB- P1R       198. 38    12. 438 No_date   28:02   42. 53   n/a     .000
11858>                      overflow <=    1. 0 02: KB- Plovf       8. 34     5. 573 No_date   28:02   42. 53   n/a     .000
11859>        [ Mi St o l ked=. 7313E+00   m3,  Tot Or f Vol =. 3545E+00   m3,  N- Or f =     2,  Tot Dur Or f =     1. hr s]
11860> R0050: C00216-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11861>      ADD HYD                 1. 0 02: KB- P1R       198. 38    12. 438 No_date   28:02   42. 53   n/a     .000
11862>                            +     1. 0 02: KB- Plovf       8. 34     5. 573 No_date   28:02   42. 53   n/a     .000
11863>                      SUM=    1. 0 01: KB- Pondi     206. 72    18. 011 No_date   28:02   42. 53   n/a     .000
11864> R0050: C00217-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11865>      SAVE HYD                1. 0 01: KB- Pondi     206. 72    18. 011 No_date   28:02   42. 53   n/a     .000
11866>        fname : KB- Pondi. 0050
11867>        remark: Total Flows at KB first pond
11868> R0050: C00218-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11869>      CONTINUOUS STANDHYD     1. 0 01: KB- 07          10. 86     2. 656 No_date   28:00   72. 58 .890     .000
11870>        [ XI M%: 86: TIMP=. 86]
11871>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11872>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11873>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI= 269. : MNI =. 013: SCI=    .0]
11874>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11875> R0050: C00219-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11876>      COMPUTE DUALHYD         1. 0 01: KB- 07          10. 86     2. 656 No_date   28:00   72. 58   n/a     .000
11877>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11878>        Minor System    \     1. 0 03: KB- 07- MN       10. 86     2. 094 No_date   28:08   72. 95   n/a     .000
11879>        [ Mj Sys St o=. 1950E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11880> R0050: C00220-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11881>      ADD HYD                 1. 0 02: KB- 07- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11882>                            +     1. 0 02: KB- 07- MN       10. 86     2. 094 No_date   28:08   72. 95   n/a     .000
11883>                      SUM=    1. 0 01: KB- 07- S        10. 86     2. 094 No_date   28:08   72. 95   n/a     .000
11884> R0050: C00221-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11885>      CONTINUOUS STANDHYD     1. 0 01: KB- 08          6. 61     1. 444 No_date   28:00   59. 78 .733     .000
11886>        [ XI M%: 64: TIMP=. 64]
11887>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11888>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11889>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI= 210. : MNI =. 013: SCI=    .0]
11890>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11891> R0050: C00222-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11892>      COMPUTE DUALHYD         1. 0 01: KB- 08          6. 61     1. 444 No_date   28:00   59. 78   n/a     .000
11893>        Major System    /       .00      .000 No_date   0: 00    .00   n/a     .000
11894>        Minor System    \     1. 0 03: KB- 08- MN       6. 61     1. 058 No_date   27:53   60. 05   n/a     .000
11895>        [ Mj Sys St o=. 1439E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
11896> R0050: C00223-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11897>      ADD HYD                 1. 0 02: KB- 08- MI       .00      .000 No_date   0: 00    .00   n/a     .000
11898>                            +     1. 0 02: KB- 08- MN       6. 61     1. 058 No_date   27:53   60. 05   n/a     .000
11899>                      SUM=    1. 0 01: KB- 08- S        6. 61     1. 058 No_date   27:53   60. 05   n/a     .000
11900> R0050: C00224-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11901>      CONTINUOUS STANDHYD     1. 0 01: KB- 09          2. 60      .665 No_date   28:00   71. 90 .882     .000
11902>        [ XI M%: 86: TIMP=. 86]
11903>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11904>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11905>        [ Impervious    area: I Aimp=  1. 57: SLPI =2. 00: LGI= 132. : MNI =. 013: SCI=    .0]
11906>        [ I a RECI mp=   4. 00: I a RECper=   4. 00]
11907> R0050: C00225-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11908>      CONTINUOUS STANDHYD     1. 0 01: KB- 10_1        2. 37      .607 No_date   28:00   71. 90 .882     .000
11909>        [ XI M%: 86: TIMP=. 86]
11910>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
11911>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11912>        [ Impervious    area: I Aimp=  1. 57: SLPI =2. 00: LGI= 
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11969> R0050: C00236-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11970>       CONTINUOUS STANDHYD     1.0 01: KB-16_2        3.42       .724 No_date   28:01   64.30 .789     .000
11971>         [ XI M=. 71: TI M=. 71]
11972>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
11973>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
11974>         [ Impervious    area: I Aimp=  . 16: SLPI= . 30: LGI= 151. : MNI=. 013: SCI=    .0]
11975>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
11976> R0050: C00237-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11977>       ADD HYD                 1.0 02: KB-Pond1     206. 72    18. 011 No_date   28:02   42. 53  n/a     .000
11978>                         +     1.0 02: KB-07-S       10. 86     2. 094 No_date   28:08   72. 95  n/a     .000
11979>                         +     1.0 02: KB-08-S        6. 61     1. 058 No_date   27:53   60. 05  n/a     .000
11980>                         +     1.0 02: KB-09          2. 60      .665 No_date   28:00   71. 90  n/a     .000
11981>                         +     1.0 02: KB-10_1        2. 37      .607 No_date   28:00   71. 90  n/a     .000
11982>                         +     1.0 02: KB-10_2        1. 14      .295 No_date   28:00   71. 90  n/a     .000
11983>                         +     1.0 02: KB-12-S        4. 86     1. 867 No_date   28:09   68. 93  n/a     .000
11984>                         +     1.0 02: KB-13-S       10. 19     1. 722 No_date   27:55   60. 01  n/a     .000
11985>                         +     1.0 02: KB-14-S        5. 47      .873 No_date   27:53   60. 02  n/a     .000
11986>                         +     1.0 02: KB-16_2        3. 42      .724 No_date   28:01   64. 30  n/a     .000
11987>                       SUM=    1.0 01: KB-P2        254. 24    26. 339 No_date   28:02   46. 87  n/a     .000
11988> R0050: C00238-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11989>       ROUTE RESERVOIR -->     1.0 02: KB-P2        254. 24    26. 339 No_date   28:02   46. 87  n/a     .000
11990>                       out <=  1.0 01: KB-P2R       253. 10    17. 634 No_date   28:09   46. 87  n/a     .000
11991>             overflow <=       1.0 03: KB-P2ovf       1. 14     5. 257 No_date   28:09   46. 87  n/a     .000
11992>         [ MxStoUsed=. 1109E+01  m3,  Tot Ovf Vol=. 5351E-01  m3,  N-Ov f=     1,  Tot Dur Ov f=     0. hr s]
11993> R0050: C00239-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11994>       ADD HYD                 1.0 02: KB-P2R       253. 10    17. 634 No_date   28:09   46. 87  n/a     .000
11995>                         +     1.0 02: KB-P2ovf       1. 14     5. 257 No_date   28:09   46. 87  n/a     .000
11996>                       SUM=    1.0 01: KB-Pond2     254. 24    22. 891 No_date   28:09   46. 87  n/a     .000
11997> R0050: C00240-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
11998>       SAVE HYD                1.0 01: KB-Pond2     254. 24    22. 891 No_date   28:09   46. 87  n/a     .000
11999>         fname : KB-Pond2. 0050
12000>         remark: Total Flows at KB second pond
12001> R0050: C00241-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12002>       CONTINUOUS STANDHYD     1.0 01: KB-16_1        2. 80      .624 No_date   28:00   66. 65  .818     .000
12003>         [ XI M=. 75: TI M=. 75]
12004>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
12005>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12006>         [ Impervious    area: I Aimp=  . 16: SLPI= . 30: LGI= 137. : MNI=. 013: SCI=    .0]
12007>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12008> R0050: C00242-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12009>       ADD HYD                 1.0 02: KB-Pond2     254. 24    22. 891 No_date   28:09   46. 87  n/a     .000
12010>                         +     1.0 02: KB-16_1        2. 80      .624 No_date   28:00   66. 65  .818     .000
12011>                       SUM=    1.0 01: KB-P3        257. 04    23. 147 No_date   28:09   47. 08  n/a     .000
12012> R0050: C00243-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12013>       ROUTE RESERVOIR -->     1.0 02: KB-P3        257. 04    23. 147 No_date   28:09   47. 08  n/a     .000
12014>                       out <=  1.0 01: KB-P3R         9. 40      .051 No_date   17:13   47. 07  n/a     .000
12015>             overflow <=       1.0 03: KB-P3ovf     247. 64    22. 286 No_date   28:10   47. 08  n/a     .000
12016>         [ MxStoUsed=. 1988E-02  m3,  Tot Ovf Vol=. 1166E+02  m3,  N-Ov f=     1,  Tot Dur Ov f=    23. hr s]
12017> R0050: C00244-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12018>       ADD HYD                 1.0 02: KB-P3R         9. 40      .051 No_date   17:13   47. 07  n/a     .000
12019>                         +     1.0 02: KB-P3ovf     247. 64    22. 286 No_date   28:10   47. 08  n/a     .000
12020>                       SUM=    1.0 01: KB-Pond3     257. 04    22. 337 No_date   28:10   47. 08  n/a     .000
12021> R0050: C00245-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12022>       SAVE HYD                1.0 01: KB-Pond3     257. 04    22. 337 No_date   28:10   47. 08  n/a     .000
12023>         fname : KB-Pond3. 0050
12024>         remark: Total Flows at KB third pond
12025> ********************************************************************************
12026> #     EXISTING / PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
12027> #     - TO FRASER-CLARKE DRAIN
12028> ********************************************************************************
12029> R0050: C00246-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12030>       CONTINUOUS STANDHYD     1.0 01: FC-01          8. 03     1. 483 No_date   28:01   49. 52  .608     .000
12031>         [ XI M=. 47: TI M=. 47]
12032>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
12033>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12034>         [ Impervious    area: I Aimp=  . 57: SLPI=1. 00: LGI=  231. : MNI=. 013: SCI=    .0]
12035>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12036> R0050: C00247-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12037>       COMPUTE DUALHYD         1.0 01: FC-01          8. 03     1. 483 No_date   28:01   49. 52  n/a     .000
12038>         Major System    /     1.0 02: FC-01-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12039>         Minor System    \     1.0 03: FC-01-MN       8. 03      .756 No_date   28:32   49. 91  n/a     .000
12040>         [ MjSysSto=. 4662E+03,  Tot Ovf Vol=. 0000E+00,  N-Ov f=     0,  Tot Dur Ov f=    0. hr s]
12041> R0050: C00248-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12042>       ADD HYD                 1.0 02: FC-01-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12043>                         +     1.0 02: FC-01-MN       8. 03      .756 No_date   27:51   49. 91  n/a     .000
12044>                       SUM=    1.0 01: FC-01-S        8. 03      .756 No_date   27:51   49. 91  n/a     .000
12045> R0050: C00249-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12046>       CONTINUOUS STANDHYD     1.0 01: FC-02         16. 05     3. 831 No_date   28:00   75. 92  .931     .000
12047>         [ XI M=. 93: TI M=. 93]
12048>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
12049>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12050>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  327. : MNI=. 013: SCI=    .0]
12051>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12052> R0050: C00250-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12053>       COMPUTE DUALHYD         1.0 01: FC-02         16. 05     3. 831 No_date   28:00   75. 92  n/a     .000
12054>         Major System    /     1.0 02: FC-02-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12055>         Minor System    \     1.0 03: FC-02-MN      16. 05     1. 159 No_date   27:43   75. 94  n/a     .000
12056>         [ MjSysSto=. 2348E+04,  Tot Ovf Vol=. 0000E+00,  N-Ov f=     0,  Tot Dur Ov f=    0. hr s]
12057> R0050: C00251-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12058>       ADD HYD                 1.0 02: FC-02-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12059>                         +     1.0 02: FC-02-MN      16. 05     1. 159 No_date   27:43   75. 94  n/a     .000
12060>                       SUM=    1.0 01: FC-02-S       16. 05     1. 159 No_date   27:43   75. 94  n/a     .000
12061> R0050: C00252-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12062>       CONTINUOUS STANDHYD     1.0 01: FC-03          7. 37     1. 540 No_date   28:00   59. 28  .727     .000
12063>         [ XI M=. 64: TI M=. 64]
12064>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
12065>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12066>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  222. : MNI=. 013: SCI=    .0]
12067>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12068> R0050: C00253-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12069>       COMPUTE DUALHYD         1.0 01: FC-03          7. 37     1. 540 No_date   28:00   59. 28  n/a     .000
12070>         Major System    /     1.0 02: FC-03-MJ       .02        .092 No_date   28:14   59. 28  n/a     .000
12071>         Minor System    \     1.0 03: FC-03-MN       7. 35      .358 No_date   27:42   59. 51  n/a     .000
12072>         [ MjSysSto=. 1375E+04,  Tot Ovf Vol=. 1375E+02,  N-Ov f=     1,  Tot Dur Ov f=    0. hr s]
12073> R0050: C00254-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12074>       ADD HYD                 1.0 02: FC-03-MJ       .02        .092 No_date   28:14   59. 28  n/a     .000
12075>                         +     1.0 02: FC-03-MN       7. 35      .358 No_date   27:42   59. 51  n/a     .000
12076>                       SUM=    1.0 01: FC-03-S        7. 37      .450 No_date   28:14   59. 51  n/a     .000
12077> R0050: C00255-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12078>       CONTINUOUS STANDHYD     1.0 01: FC-04         12. 87     2. 587 No_date   28:01   59. 28  .727     .000
12079>         [ XI M=. 64: TI M=. 64]
12080>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
12081>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12082>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  293. : MNI=. 013: SCI=    .0]
12083>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12084> R0050: C00256-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12085>       COMPUTE DUALHYD         1.0 01: FC-04         12. 87     2. 587 No_date   28:01   59. 28  n/a     .000
12086>         Major System    /     1.0 02: FC-04-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12087>         Minor System    \     1.0 03: FC-04-MN      12. 87      .741 No_date   27:44   59. 54  n/a     .000
12088>         [ MjSysSto=. 1729E+04,  Tot Ovf Vol=. 0000E+00,  N-Ov f=     0,  Tot Dur Ov f=    0. hr s]
12089> R0050: C00257-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12090>       ADD HYD                 1.0 02: FC-04-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12091>                         +     1.0 02: FC-04-MN      12. 87      .741 No_date   27:44   59. 54  n/a     .000
12092>                       SUM=    1.0 01: FC-04-S       12. 87      .741 No_date   27:44   59. 54  n/a     .000
12093> ********************************************************************************
12094> #     PROPOSED Subcatchments ( Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report June, 2020)
12095> #     - TO JOCK RIVER
12096> ********************************************************************************
12097> R0050: C00258-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12098>       CONTINUOUS STANDHYD     1.0 01: JR-01          8. 24     1. 714 No_date   28:00   59. 28  .727     .000
12099>         [ XI M=. 64: TI M=. 64]
12100>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
12101>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12102>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  234. : MNI=. 013: SCI=    .0]
12103>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12104> R0050: C00259-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12105>       COMPUTE DUALHYD         1.0 01: JR-01          8. 24     1. 714 No_date   28:00   59. 28  n/a     .000
12106>         Major System    /     1.0 02: JR-01-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12107>         Minor System    \     1.0 03: JR-01-MN       8. 24      .563 No_date   28:59   59. 48  n/a     .000
12108>         [ MjSysSto=. 9643E+03,  Tot Ovf Vol=. 0000E+00,  N-Ov f=     0,  Tot Dur Ov f=    0. hr s]
12109> R0050: C00260-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12110>       ADD HYD                 1.0 02: JR-01-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12111>                         +     1.0 02: JR-01-MN       8. 24      .563 No_date   27:44   59. 48  n/a     .000
12112>                       SUM=    1.0 01: JR-01-S        8. 24      .563 No_date   27:44   59. 48  n/a     .000
12113> R0050: C00261-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12114>       CONTINUOUS STANDHYD     1.0 01: JR-02          1. 59      .357 No_date   28:00   59. 28  .727     .000
12115>         [ XI M=. 64: TI M=. 64]
12116>         [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fi= .00]
12117>         [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12118>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  103. : MNI=. 013: SCI=    .0]
12119>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12120> R0050: C00262-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12121>       COMPUTE DUALHYD         1.0 01: JR-02          1. 59      .357 No_date   28:00   59. 28  n/a     .000
12122>         Major System    /     1.0 02: JR-02-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12123>         Minor System    \     1.0 03: JR-02-MN       1. 59      .153 No_date   27:45   59. 66  n/a     .000
12124>         [ MjSysSto=. 1319E+03,  Tot Ovf Vol=. 0000E+00,  N-Ov f=     0,  Tot Dur Ov f=    0. hr s]
12125> R0050: C00263-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12126>       ADD HYD                 1.0 02: JR-02-MJ       .00        .000 No_date    0:00     .00  n/a     .000
12127>                         +     1.0 02: JR-02-MN       1. 59      .153 No_date   27:45   59. 66  n/a     .000
12128>                       SUM=    1.0 01: JR-02-S        1. 59      .153 No_date   27:45   59. 66  n/a     .000
12129> ********************************************************************************
12130> #     Catchment FRASER
12131> #     - To Fraser-Clarke drain (north of the Jock)
12132> #     - Developed land with assumed 43% imp.
12133> #     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
12134> #     - 2020-12-17 All Fraser is undeveloped (Nashyd)
12135> ********************************************************************************
12136> R0050: C00264-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12137>       CONTINUOUS NASHYD       1.0 01: FRASER-DRN     13. 65      .711 No_date   28:22   39. 91  .490     .000
12138>         [ CN= 77. 0: N= 3. 00: Tp=   .43]
12139>         [ IaREC= 4. 00: SM N= 31. 15: SMX=207. 66:  SK= . 010]
12140>         [ InterEvent Time=  12. 00]
12141> R0050: C00265-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12142>       CONTINUOUS NASHYD       1.0 01: FRASER-D       21. 61       .816 No_date   28:40   39. 91  .490     .000
12143>         [ CN= 77. 0: N= 3. 00: Tp=   .67]
12144>         [ IaREC= 4. 00: SM N= 31. 15: SMX=207. 66:  SK= . 010]
12145>         [ InterEvent Time=  12. 00]
12146> R0050: C00266-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12147>       ADD HYD                 1.0 02: KB-Pond3     257. 04    22. 337 No_date   28:10   47. 08  n/a     .000
12148>                         +     1.0 02: S-1-B          55. 36     2. 770 No_date   28:23   39. 91  n/a     .000
12149>                         +     1.0 02: FRASER-DRN     13. 65      .711 No_date   28:22   39. 91  n/a     .000
12150>                         +     1.0 02: FRASER-D       21. 61       .816 No_date   28:40   39. 91  n/a     .000
12151>                         +     1.0 02: N_KB        54279. 41  127. 622 No_date   36:14   33. 90  n/a     .000
12152>                         +     1.0 02: FC-01-S        8. 03      .756 No_date   27:51   49. 91  n/a     .000
12153>                         +     1.0 02: FC-02-S       16. 05     1. 159 No_date   27:43   75. 94  n/a     .000
12154>                         +     1.0 02: FC-03-S        7. 37      .450 No_date   28:14   59. 51  n/a     .000
12155>                       SUM=    1.0 01: 4241        54658. 52  128. 395 No_date   35:50   33. 99  n/a     .000
12156> R0050: C00267-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12157>       SAVE HYD                1.0 01: 4241        54658. 52  128. 395 No_date   35:50   33. 99  n/a     .000
12158>         fname : 4241. 0050
12159>         remark: Total Flows at Ken-Burnett Outlet
12160> # Hydrograph from Node Ken-Burnett to station 3633
12161> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
12162> #
12163> R0050: C00268-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12164>       ROUTE CHANNEL   -->     1.0 02: 4241        54658. 52  128. 395 No_date   35:50   33. 99  n/a     .000
12165>         [ RDT= 1. 00]  out <-  1.0 01: 4241-out    54658. 52  128. 422 No_date   36:04   33. 99  n/a     .000
12166>           [ L/ S/ n=  294. /  . 109/ . 035]
12167>           [ Vmax=  1. 338: Dmax=  2. 446]
12168> R0050: C00269-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12169>       ADD HYD                 1.0 02: 4241-out     54658. 52  128. 422 No_date   36:04   33. 99  n/a     .000
12170>                         +     1.0 02: FC-04-S        12. 87      .741 No_date   27:44   59. 54  n/a     .000
12171>                         +     1.0 02: JR-01-S         8. 24      .563 No_date   27:44   59. 48  n/a     .000
12172>                         +     1.0 02: JR-02-S         1. 59      .153 No_date   27:45   59. 66  n/a     .000
12173>                       SUM=    1.0 01: 4241        54681. 12  128. 479 No_date   35:47   34. 00  n/a     .000
12174> R0050: C00270-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12175>       SAVE HYD                1.0 01: SN_KB       54681. 21  128. 479 No_date   35:47   34. 00  n/a     .000
12176>         fname : SN_KB. 0050
12177>         remark: HYD_COMMENT=[ "Total Flows before Station 3633]
12178> # Hydrograph from Station 3633 to Node Todd
12179> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
12180> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
12181> #
12182> R0050: C00271-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12183>       ROUTE CHANNEL   -->     1.0 02: SN_KB       54681. 21  128. 479 No_date   35:47   34. 00  n/a     .000
12184>         [ RDT= 1. 00]  out <-  1.0 01: N_TO        54681. 21  128. 396 No_date   36:11   34. 00  n/a     .000
12185>           [ L/ S/ n=  608. /  . 247/ . 035]
12186>           [ Vmax=  1. 819: Dmax=  1. 834]
12187> ********************************************************************************
12188> #     Catchment Greenbank
12189> #     - To Greenbank Drain (south of the Jock)
12190> #     - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
12191> #     - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
12192> ********************************************************************************
12193> R0050: C00272-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12194>       CONTINUOUS STANDHYD     1.0 01: Greenbank      36. 60     6. 286 No_date   28:02   65. 04  .798     .000
12195>         [ XI M=. 64: TI M=. 68]
12196>         [ LOSS= 2 : CN= 77. 0]
12197>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12198>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  494. : MNI=. 013: SCI=    .0]
12199>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12200>         [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
12201> R0050: C00273-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12202>       ROUTE RESERVOIR -->     1.0 02: Greenbank      36. 60     6. 286 No_date   28:02   65. 04  n/a     .000
12203>                       out <=  1.0 01: GreenBNK       36. 60     4. 176 No_date   28:09   65. 04  n/a     .000
12204>             overflow <=       1.0 03: GreenBNovf      .00        .000 No_date    0:00     .00  n/a     .000
12205>         [ MxStoUsed=. 9063E+00  m3,  Tot Ovf Vol=. 0000E+00  m3,  N-Ov f=     0,  Tot Dur Ov f=    0. hr s]
12206> R0050: C00274-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12207>       ADD HYD                 1.0 02: N_TO        54681. 21  128. 396 No_date   36:11   34. 00  n/a     .000
12208>                         +     1.0 02: GreenBNJ        .00        .000 No_date    0:00     .00  n/a     .000
12209>                         +     1.0 02: GreenBNMN      36. 60     4. 176 No_date   28:09   65. 04  n/a     .000
12210>                       SUM=    1.0 01: GreenB      54717. 81  128. 564 No_date   36:11   34. 02  n/a     .000
12211> R0050: C00275-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12212>       SAVE HYD                1.0 01: GreenB      54717. 81  128. 564 No_date   36:11   34. 02  n/a     .000
12213>         fname : GreenB. 0050
12214>         remark: Total Flows at Greenbank Drain
12215> ********************************************************************************
12216> #     Catchment TODD
12217> #     - To Todd Drain (south of the Jock)
12218> #     - Subdivision with 43% imp. as per Barrhaven South MSS
12219> #     - 2020-11-30 increase imp. based on P598(04)-11
12220> #     - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on P598(04)-11
12221> #     - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
12222> ********************************************************************************
12223> #     - JFSA 2021-01-19 add "TODD_MN" as part of Clarke("W.CLARK_MF") and remove it from Todd
12224> R0050: C00276-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12225>       CONTINUOUS STANDHYD     1.0 01: TODD_MN2       2. 10      .384 No_date   28:00   60. 14  .738     .000
12226>         [ XI M=. 53: TI M=. 57]
12227>         [ LOSS= 2 : CN= 77. 0]
12228>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12229>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  118. : MNI=. 013: SCI=    .0]
12230>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12231>         [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
12232> R0050: C00277-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12233>       CONTINUOUS STANDHYD     1.0 01: TODD_MN3        .12        .022 No_date   28:00   60. 13  .738     .000
12234>         [ XI M=. 53: TI M=. 57]
12235>         [ LOSS= 2 : CN= 77. 0]
12236>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12237>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=   28. : MNI=. 013: SCI=    .0]
12238>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12239>         [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
12240> R0050: C00278-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12241>       CONTINUOUS STANDHYD     1.0 01: TODD_MJ        30. 23     4. 894 No_date   28:02   61. 85  .759     .000
12242>         [ XI M=. 52: TI M=. 64]
12243>         [ LOSS= 2 : CN= 77. 0]
12244>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12245>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  449. : MNI=. 013: SCI=    .0]
12246>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12247>         [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
12248> R0050: C00279-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12249>       CONTINUOUS STANDHYD     1.0 01: TODD_ALL      112. 91    15. 270 No_date   28:04   59. 95  .735     .000
12250>         [ XI M=. 52: TI M=. 57]
12251>         [ LOSS= 2 : CN= 77. 0]
12252>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12253>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  868. : MNI=. 013: SCI=    .0]
12254>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12255>         [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
12256> R0050: C00280-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12257>       CONTINUOUS STANDHYD     1.0 01: TODD_P         3. 06      .600 No_date   28:00   63. 61  .780     .000
12258>         [ XI M=. 63: TI M=. 63]
12259>         [ LOSS= 2 : CN= 77. 0]
12260>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12261>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  143. : MNI=. 013: SCI=    .0]
12262>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12263>         [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
12264> # 5-Year + 12% Capture
12265> R0050: C00281-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12266>       ROUTE RESERVOIR -->     1.0 02: TODD_MJ        30. 23     4. 894 No_date   28:02   61. 85  n/a     .000
12267>                       out <=  1.0 01: TODD_MJn       28. 89     3. 314 No_date   27:54   61. 87  n/a     .000
12268>             overflow <=       1.0 03: TODD_MJj        1. 34     1. 567 No_date   28:02   61. 85  n/a     .000
12269>         [ MxStoUsed=. 1169E-02  m3,  Tot Ovf Vol=. 8285E-01  m3,  N-Ov f=     1,  Tot Dur Ov f=    0. hr s]
12270> # 5-Year + 12% Capture
12271> R0050: C00282-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12272>       ROUTE RESERVOIR -->     1.0 02: TODD_MN2       2. 10      .384 No_date   28:00   60. 14  n/a     .000
12273>                       out <=  1.0 01: TODD_MN2n      2. 02      .268 No_date   27:53   60. 14  n/a     .000
12274>             overflow <=       1.0 03: TODD_MN2j       .08        .111 No_date   28:00   60. 14  n/a     .000
12275>         [ MxStoUsed=. 1643E-03  m3,  Tot Ovf Vol=. 4631E-02  m3,  N-Ov f=     1,  Tot Dur Ov f=    0. hr s]
12276> R0050: C00283-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12277>       ROUTE RESERVOIR -->     1.0 02: TODD_MN3        .12        .022 No_date   28:00   60. 13  n/a     .000
12278>                       out <=  1.0 01: TODD_MN3n       .11        .016 No_date   27:52   60. 13  n/a     .000
12279>             overflow <=       1.0 03: TODD_MN3j       .00        .006 No_date   28:00   60. 13  n/a     .000
12280>         [ MxStoUsed=. 8712E-04  m3,  Tot Ovf Vol=. 2472E-03  m3,  N-Ov f=     1,  Tot Dur Ov f=    0. hr s]
12281> R0050: C00284-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12282>       CONTINUOUS STANDHYD     1.0 01: A2            25. 50     3. 441 No_date   28:03   55. 89  .686     .000
12283>         [ XI M=. 42: TI M=. 52]
12284>         [ LOSS= 2 : CN= 75. 0]
12285>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12286>         [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  566. : MNI=. 013: SCI=    .0]
12287>         [ IaREC mp=  4. 00: IaREC per=   4. 00]
12288>         [ SM N= 33. 81:  SMX=225. 43:  SK= . 010]
12289> R0050: C00285-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12290>       COMPUTE DUALHYD         1.0 01: A2            25. 50     3. 441 No_date   28:03   55. 89  n/a     .000
12291>         Major System    /     1.0 02: A2-MJ          .64     1. 180 No_date   28:07   55. 89  n/a     .000
12292>         Minor System    \     1.0 03: A2-MN         24. 86     1. 818 No_date   28:39   55. 89  n/a     .000
12293>         [ MjSysSto=. 9240E+03,  Tot Ovf Vol=. 3586E+03,  N-Ov f=     1,  Tot Dur Ov f=    0. hr s]
12294> R0050: C00286-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12295>       ADD HYD                 1.0
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12343> #     - Primarily Developed (medium density)
12344> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
12345> ##########################################################################
12346> R0050: C00293-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12347>      CONTINUOUS STANDHYD     1.0 01: corr1          15.87      2.851 No_date   28:01    63.61 .780      .000
12348>      [ XIMP=. 63: TIMP=. 63]
12349>      [ LOSS= 2 : CN= 77.0]
12350>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12351>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  325. : MNI=. 013: SCI=    .0]
12352>      [ IaRECmp=   4. 00: IaRECper=    4. 00]
12353>      [ SMN=  31. 15: SMX=207. 66: SK=  .010]
12354> R0050: C00294-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12355>      COMPUTE DUALHYD         1.0 01: corr1          15.87      2.851 No_date   28:01    63.61  n/a      .000
12356>      Major System    /       1.0 02: corr1-MJ         .00       .000 No_date   0:00      .00  n/a      .000
12357>      Minor System    \       1.0 03: corr1-MN       15.87      1.818 No_date   28:19    63.67  n/a      .000
12358>      [ MJSysSto=. 5297E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12359> R0050: C00295-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12360>      CONTINUOUS NASHYD       1.0 01: corr2          12.47       .330 No_date   29:10    39.91 .490      .000
12361>      [ CN=  77. 0: N=  3. 00: Tp=  1. 10]
12362>      [ IaREC=  4. 00: SMN=  31. 15: SMX=207. 66: SK=  .010]
12363>      [ InterFlowTime=   12. 00]
12364> R0050: C00296-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12365>      CONTINUOUS STANDHYD     1.0 01: Al-Corrig      15.75      2.330 No_date   28:01    55.89 .686      .000
12366>      [ XIMP=. 42: TIMP=. 52]
12367>      [ LOSS= 2 : CN= 75.0]
12368>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12369>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  324. : MNI=. 013: SCI=    .0]
12370>      [ IaRECmp=   4. 00: IaRECper=    4. 00]
12371>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12372> R0050: C00297-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12373>      COMPUTE DUALHYD         1.0 01: Al-Corrig      15.75      2.330 No_date   28:01    55.89  n/a      .000
12374>      Major System    /       1.0 02: Al-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12375>      Minor System    \       1.0 03: Al-MN          15.75      1.818 No_date   27:56    56.07  n/a      .000
12376>      [ MJSysSto=. 1953E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12377> R0050: C00298-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12378>      CONTINUOUS NASHYD       1.0 01: BI             2.77       .119 No_date   28:09    24.96 .306      .000
12379>      [ CN=  56. 0: N=  3. 00: Tp=   .23]
12380>      [ IaREC=  4. 00: SMN=  79. 69: SMX=531. 24: SK=  .010]
12381>      [ InterFlowTime=   12. 00]
12382> R0050: C00299-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12383>      CONTINUOUS STANDHYD     1.0 01: A4             1.27       .239 No_date   28:00    63.95 .785      .000
12384>      [ XIMP=. 65: TIMP=. 65]
12385>      [ LOSS= 2 : CN= 75.0]
12386>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12387>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  253. : MNI=. 013: SCI=    .0]
12388>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12389>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12390> R0050: C00300-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12391>      COMPUTE DUALHYD         1.0 01: A4             1.27       .239 No_date   28:00    63.95  n/a      .000
12392>      Major System    /       1.0 02: A4-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12393>      Minor System    \       1.0 03: A4-MN          1.27       .239 No_date   28:00    63.95  n/a      .000
12394>      [ MJSysSto=. 0000E+00,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12395> R0050: C00301-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12396>      ADD HYD                 1.0 02: A4-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12397>                          +   1.0 02: A1-MN          15.75      1.818 No_date   27:56    56.07  n/a      .000
12398>                          +   1.0 02: corr1-MJ         .00       .000 No_date   0:00      .00  n/a      .000
12399>                          +   1.0 02: corr1-MN        15.87      1.818 No_date   28:19    63.67  n/a      .000
12400>                          +   1.0 02: corr2          12.47       .330 No_date   29:10    39.91  n/a      .000
12401>                          +   1.0 02: BI              2.77       .119 No_date   28:09    24.96  n/a      .000
12402>                          +   1.0 02: A4-MN           1.27       .239 No_date   28:00    63.95  n/a      .000
12403>                      SUM=    1.0 01: MH101          48.13      4.028 No_date   28:02    52.81  n/a      .000
12404> R0050: C00302-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12405>      SAVE HYD                1.0 01: MH101          48.13      4.028 No_date   28:02    52.81  n/a      .000
12406>      fname: MH01. 0050
12407>      remark: Total Flows at MH01
12408> R0050: C00303-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12409>      ROUTE PIPE          ->  1.0 02: MH101          48.13      4.028 No_date   28:02    52.81  n/a      .000
12410> *    [ RDT=. 1. 00] out <-   1.0 01: 101-102       48.13      4.005 No_date   28:03    52.81  n/a      .000
12411>      [ L/ S/ n=  368. / . 540/ . 013]
12412>      [ Vmax=  3. 143: Dmax=  1. 119]
12413>      [ Di n=  1. 05: Dused=  1. 36]
12414> R0050: C00304-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12415>      ADD HYD                 1.0 02: A2-MN          24.86      1.818 No_date   28:39    56.08  n/a      .000
12416>                          +   1.0 02: 101-102        48.13      4.005 No_date   28:03    52.81  n/a      .000
12417>                      SUM=    1.0 02: MH102          72.99      5.823 No_date   28:03    53.92  n/a      .000
12418> R0050: C00305-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12419>      SAVE HYD                1.0 01: MH102          72.99      5.823 No_date   28:03    53.92  n/a      .000
12420>      fname: MH02. 0050
12421>      remark: Total Flows at MH02
12422> R0050: C00306-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12423>      CONTINUOUS STANDHYD     1.0 01: A5             1.60       .312 No_date   28:01    66.69 .818      .000
12424>      [ XIMP=. 71: TIMP=. 71]
12425>      [ LOSS= 2 : CN= 75.0]
12426>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12427>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  300. : MNI=. 013: SCI=    .0]
12428>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12429>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12430> R0050: C00307-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12431>      ADD HYD                 1.0 02: A4-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12432>                          +   1.0 02: A5             1.60       .312 No_date   28:01    66.69  n/a      .000
12433>                      SUM=    1.0 01: A5T            1.60       .312 No_date   28:01    66.69  n/a      .000
12434> R0050: C00308-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12435>      COMPUTE DUALHYD         1.0 01: A5T            1.60       .312 No_date   28:01    66.69  n/a      .000
12436>      Major System    /       1.0 02: A5-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12437>      Minor System    \       1.0 03: A5-MN          1.60       .312 No_date   28:01    66.69  n/a      .000
12438>      [ MJSysSto=. 0000E+00,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12439> R0050: C00309-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12440>      ROUTE PIPE          ->  1.0 02: MH102          72.99      5.823 No_date   28:03    53.92  n/a      .000
12441> *    [ RDT=. 1. 00] out <-   1.0 01: 102-103       72.99      5.773 No_date   28:14    53.92  n/a      .000
12442>      [ L/ S/ n=  504. / . 280/ . 013]
12443>      [ Vmax=  2. 694: Dmax=  1. 453]
12444>      [ Di n=  1. 50: Dused=  1. 77]
12445> R0050: C00310-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12446>      ADD HYD                 1.0 02: 102-103        72.99      5.773 No_date   28:14    53.92  n/a      .000
12447>                          +   1.0 02: A5-MN           1.60       .312 No_date   28:01    66.69  n/a      .000
12448>                      SUM=    1.0 01: MH103          74.59      5.961 No_date   28:03    54.19  n/a      .000
12449> R0050: C00311-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12450>      SAVE HYD                1.0 01: MH103          74.59      5.961 No_date   28:03    54.19  n/a      .000
12451>      fname: MH03. 0050
12452>      remark: Total Flows at MH03
12453> R0050: C00312-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12454>      ROUTE PIPE          ->  1.0 02: MH103          74.59      5.961 No_date   28:03    54.19  n/a      .000
12455> *    [ RDT=. 1. 00] out <-   1.0 01: 103-104       74.59      5.915 No_date   28:07    54.19  n/a      .000
12456>      [ L/ S/ n=  438. / . 460/ . 013]
12457>      [ Vmax=  3. 295: Dmax=  1. 301]
12458>      [ Di n=  1. 65: Dused=  1. 65]
12459> R0050: C00313-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12460>      CONTINUOUS STANDHYD     1.0 01: A6             1.56       .306 No_date   28:00    66.69 .818      .000
12461>      [ XIMP=. 71: TIMP=. 71]
12462>      [ LOSS= 2 : CN= 75.0]
12463>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12464>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  280. : MNI=. 013: SCI=    .0]
12465>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12466>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12467> R0050: C00314-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12468>      ADD HYD                 1.0 02: A5-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12469>                          +   1.0 02: A6             1.56       .306 No_date   28:00    66.69  n/a      .000
12470>                      SUM=    1.0 01: A6T            1.56       .306 No_date   28:00    66.69  n/a      .000
12471> R0050: C00315-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12472>      COMPUTE DUALHYD         1.0 01: A6T            1.56       .306 No_date   28:00    66.69  n/a      .000
12473>      Major System    /       1.0 02: A6-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12474>      Minor System    \       1.0 03: A6-MN          1.56       .306 No_date   28:00    66.69  n/a      .000
12475>      [ MJSysSto=. 0000E+00,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12476> R0050: C00316-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12477>      ADD HYD                 1.0 02: A6-MN          1.56       .306 No_date   28:00    66.69  n/a      .000
12478>                          +   1.0 02: 103-104        74.59      5.915 No_date   28:07    54.19  n/a      .000
12479>                          +   1.0 02: TODD_Mn        28.89      3.314 No_date   27:54    61.87  n/a      .000
12480>                      SUM=    1.0 01: MH104         105.04      9.444 No_date   28:04    56.49  n/a      .000
12481> R0050: C00317-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12482>      SAVE HYD                1.0 01: MH104         105.04      9.444 No_date   28:04    56.49  n/a      .000
12483>      fname: MH04. 0050
12484>      remark: Total Flows at MH04
12485> R0050: C00318-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12486>      CONTINUOUS STANDHYD     1.0 01: B2             12.31      1.758 No_date   28:02    56.26 .690      .000
12487>      [ XIMP=. 41: TIMP=. 54]
12488>      [ LOSS= 2 : CN= 75.0]
12489>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12490>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  417. : MNI=. 013: SCI=    .0]
12491>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12492>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12493> R0050: C00319-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12494>      COMPUTE DUALHYD         1.0 01: B2             12.31      1.758 No_date   28:02    56.26  n/a      .000
12495>      Major System    /       1.0 02: B2-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12496>      Minor System    \       1.0 03: B2-MN          12.31      1.029 No_date   27:53    56.54  n/a      .000
12497>      [ MJSysSto=. 4799E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12498> R0050: C00320-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12499>      ROUTE PIPE          ->  1.0 02: B2-MN          12.31      1.029 No_date   27:53    56.54  n/a      .000
12500> *    [ RDT=. 1. 00] out <-   1.0 01: 315-333       12.31      1.029 No_date   28:33    56.54  n/a      .000
12501>      [ L/ S/ n=  254. / . 100/ . 013]
12502>      [ Vmax=  1. 220: Dmax=   .838]
12503>      [ Di n=  1. 20: Dused=  1. 20]
12504> R0050: C00321-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12505>      CONTINUOUS STANDHYD     1.0 01: B3             5.59       .825 No_date   28:01    56.26 .690      .000
12506>      [ XIMP=. 41: TIMP=. 54]
12507>      [ LOSS= 2 : CN= 75.0]
12508>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12509>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  345. : MNI=. 013: SCI=    .0]
12510>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12511>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12512> R0050: C00322-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12513>      COMPUTE DUALHYD         1.0 01: B3             5.59       .825 No_date   28:01    56.26  n/a      .000
12514>      Major System    /       1.0 02: B3-MJ            .02       .083 No_date   28:09    56.26  n/a      .000
12515>      Minor System    \       1.0 03: B3-MN          5.57       .459 No_date   27:52    56.28  n/a      .000
12516>      [ MJSysSto=. 2270E+03,  Tot Or f Vol=. 1279E+02,  N- Or f=    1,  Tot Dur Or f=    0. hrs]
12517> R0050: C00323-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12518>      ADD HYD                 1.0 02: B3-MN          5.57       .459 No_date   27:52    56.28  n/a      .000
12519>                          +   1.0 02: 315-333        12.31      1.029 No_date   28:33    56.54  n/a      .000
12520>                      SUM=    1.0 01: MH133         17.88      1.488 No_date   28:32    56.46  n/a      .000
12521> R0050: C00324-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12522>      SAVE HYD                1.0 01: MH133         17.88      1.488 No_date   28:32    56.46  n/a      .000
12523>      fname: MH033. 0050
12524>      remark: Total Flows at MH33
12525> R0050: C00325-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12526>      ROUTE PIPE          ->  1.0 02: MH133         17.88      1.488 No_date   28:32    56.46  n/a      .000
12527> *    [ RDT=. 1. 00] out <-   1.0 01: 333-335       17.88      1.479 No_date   28:19    56.46  n/a      .000
12528>      [ L/ S/ n=  251. / . 100/ . 013]
12529>      [ Vmax=  1. 302: Dmax=  1. 057]
12530>      [ Di n=  1. 20: Dused=  1. 29]
12531> R0050: C00326-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12532>      ROUTE PIPE          ->  1.0 02: 333-335       17.88      1.479 No_date   28:19    56.46  n/a      .000
12533> *    [ RDT=. 1. 00] out <-   1.0 01: 335-338       17.88      1.478 No_date   28:16    56.46  n/a      .000
12534>      [ L/ S/ n=  185. / . 100/ . 013]
12535>      [ Vmax=  1. 300: Dmax=  1. 054]
12536>      [ Di n=  1. 20: Dused=  1. 28]
12537> R0050: C00327-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12538>      ROUTE PIPE          ->  1.0 02: 335-338       17.88      1.478 No_date   28:16    56.46  n/a      .000
12539>      [ RDT=. 1. 00] out <-   1.0 01: 338-340       17.88      1.454 No_date   28:18    56.46  n/a      .000
12540>      [ L/ S/ n=  233. / . 100/ . 013]
12541>      [ Vmax=  1. 330: Dmax=   .979]
12542>      [ Di n=  1. 35: Dused=  1. 35]
12543> R0050: C00328-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12544>      CONTINUOUS STANDHYD     1.0 01: B4             7.60      1.094 No_date   28:02    56.26 .690      .000
12545>      [ XIMP=. 41: TIMP=. 54]
12546>      [ LOSS= 2 : CN= 75.0]
12547>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12548>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  388. : MNI=. 013: SCI=    .0]
12549>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12550>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12551> R0050: C00329-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12552>      COMPUTE DUALHYD         1.0 01: B4             7.60      1.094 No_date   28:02    56.26  n/a      .000
12553>      Major System    /       1.0 02: B4-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12554>      Minor System    \       1.0 03: B4-MN          7.60       .655 No_date   27:53    56.27  n/a      .000
12555>      [ MJSysSto=. 2780E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12556> R0050: C00330-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12557>      ADD HYD                 1.0 02: 338-340        17.88      1.454 No_date   28:18    56.46  n/a      .000
12558>                          +   1.0 02: B4-MN           7.60       .655 No_date   27:53    56.27  n/a      .000
12559>                      SUM=    1.0 01: MH340          25.48      2.109 No_date   28:18    56.41  n/a      .000
12560> R0050: C00331-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12561>      SAVE HYD                1.0 01: MH340          25.48      2.109 No_date   28:18    56.41  n/a      .000
12562>      fname: MH040. 0050
12563>      remark: Total Flows at MH040
12564> R0050: C00332-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12565>      ROUTE PIPE          ->  1.0 02: MH340          25.48      2.109 No_date   28:18    56.41  n/a      .000
12566> *    [ RDT=. 1. 00] out <-   1.0 01: 340-104       25.48      2.090 No_date   28:18    56.41  n/a      .000
12567>      [ L/ S/ n=  240. / . 150/ . 013]
12568>      [ Vmax=  1. 723: Dmax=   .918]
12569>      [ Di n=  1. 65: Dused=  1. 65]
12570> R0050: C00333-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12571>      ADD HYD                 1.0 02: 340-104        25.48      2.090 No_date   28:18    56.41  n/a      .000
12572>                          +   1.0 02: MH104         105.04      9.444 No_date   28:04    56.49  n/a      .000
12573>                      SUM=    1.0 01: MH104T         130.52     11.391 No_date   28:07    56.48  n/a      .000
12574> R0050: C00334-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12575>      ROUTE PIPE          ->  1.0 02: MH104T         130.52     11.391 No_date   28:07    56.48  n/a      .000
12576> *    [ RDT=. 1. 00] out <-   1.0 01: 104-105       130.52     11.118 No_date   28:10    56.48  n/a      .000
12577>      [ L/ S/ n=  380. / . 100/ . 013]
12578>      [ Vmax=  2. 107: Dmax=  2. 003]
12579>      [ HGTH=  2. 36: WDTH=  2. 70]
12580> R0050: C00335-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12581>      CONTINUOUS STANDHYD     1.0 01: B5             2.20       .390 No_date   28:00    60.29 .740      .000
12582>      [ XIMP=. 57: TIMP=. 57]
12583>      [ LOSS= 2 : CN= 75.0]
12584>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12585>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  187. : MNI=. 013: SCI=    .0]
12586>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12587>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12588> R0050: C00336-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12589>      COMPUTE DUALHYD         1.0 01: B5             2.20       .390 No_date   28:00    60.29  n/a      .000
12590>      Major System    /       1.0 02: B5-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12591>      Minor System    \       1.0 03: B5-MN          2.20       .260 No_date   27:53    60.60  n/a      .000
12592>      [ MJSysSto=. 5913E+02,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12593> R0050: C00337-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12594>      CONTINUOUS STANDHYD     1.0 01: A8              .96       .198 No_date   28:00    66.69 .818      .000
12595>      [ XIMP=. 71: TIMP=. 71]
12596>      [ LOSS= 2 : CN= 75.0]
12597>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12598>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  186. : MNI=. 013: SCI=    .0]
12599>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12600>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12601> R0050: C00338-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12602>      ADD HYD                 1.0 02: A6-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12603>                          +   1.0 02: A8              .96       .198 No_date   28:00    66.69  n/a      .000
12604>                      SUM=    1.0 01: A8T            .96       .198 No_date   28:00    66.69  n/a      .000
12605> R0050: C00339-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12606>      COMPUTE DUALHYD         1.0 01: A8T            .96       .198 No_date   28:00    66.69  n/a      .000
12607>      Major System    /       1.0 02: A8-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12608>      Minor System    \       1.0 03: A8-MN          .96       .198 No_date   28:00    66.69  n/a      .000
12609>      [ MJSysSto=. 0000E+00,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12610> R0050: C00340-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12611>      ADD HYD                 1.0 02: 104-105        130.52     11.118 No_date   28:10    56.48  n/a      .000
12612>                          +   1.0 02: B5-MN           2.20       .260 No_date   27:53    60.60  n/a      .000
12613>                          +   1.0 02: A8-MN           .96       .198 No_date   28:00    66.69  n/a      .000
12614>                          +   1.0 02: TODD_MNJ         .00       .006 No_date   28:00    60.13  n/a      .000
12615>                      SUM=    1.0 01: MH105          133.68     11.441 No_date   28:10    56.62  n/a      .000
12616> R0050: C00341-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12617>      SAVE HYD                1.0 01: MH105          133.68     11.441 No_date   28:10    56.62  n/a      .000
12618>      fname: MH105. 0050
12619>      remark: Total Flows at MH105
12620> R0050: C00342-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12621> *    DIVERT HYD          ->  1.0 02: A8-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12622>           diverted <=        1.0 02: A8-MJ-JR         .00       .000 No_date   0:00      .00  n/a      .000
12623>           diverted <=        1.0 03: A8-MJ-B6         .00       .000 No_date   0:00      .00  n/a      .000
12624> R0050: C00343-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12625>      DIVERT HYD          ->  1.0 01: MH105          133.68     11.441 No_date   28:10    56.62  n/a      .000
12626>           diverted <=        1.0 02: MH105-JR        35.42      8.432 No_date   28:10    56.62  n/a      .000
12627>           diverted <=        1.0 03: MH105-B6        98.26      3.009 No_date   28:10    56.62  n/a      .000
12628> R0050: C00344-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12629>      CONTINUOUS STANDHYD     1.0 01: B7             7.19      1.124 No_date   28:01    56.26 .690      .000
12630>      [ XIMP=. 41: TIMP=. 54]
12631>      [ LOSS= 2 : CN= 75.0]
12632>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12633>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  211. : MNI=. 013: SCI=    .0]
12634>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12635>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12636> R0050: C00345-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12637>      ADD HYD                 1.0 02: B4-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12638>                          +   1.0 02: B7             7.19      1.124 No_date   28:01    56.26  n/a      .000
12639>                      SUM=    1.0 01: B7-B4MJ        7.19      1.124 No_date   28:01    56.26  n/a      .000
12640> R0050: C00346-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12641>      COMPUTE DUALHYD         1.0 01: B7-B4MJ        7.19      1.124 No_date   28:01    56.26  n/a      .000
12642>      Major System    /       1.0 02: B7-B4-MJ         .00       .000 No_date   0:00      .00  n/a      .000
12643>      Minor System    \       1.0 03: B7R-MN         7.19       .629 No_date   27:51    56.37  n/a      .000
12644>      [ MJSysSto=. 2888E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12645> R0050: C00347-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12646>      ROUTE PIPE          ->  1.0 02: B7R-MN         7.19       .629 No_date   27:51    56.37  n/a      .000
12647> *    [ RDT=. 1. 00] out <-   1.0 01: 360-106A       7.19       .629 No_date   28:28    56.37  n/a      .000
12648>      [ L/ S/ n=  167. / . 100/ . 013]
12649>      [ Vmax=  1. 089: Dmax=   .665]
12650>      [ Di n=  1. 05: Dused=  1. 05]
12651> R0050: C00348-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12652>      CONTINUOUS STANDHYD     1.0 01: B6             3.29       .535 No_date   28:00    56.26 .690      .000
12653>      [ XIMP=. 41: TIMP=. 54]
12654>      [ LOSS= 2 : CN= 75.0]
12655>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12656>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  148. : MNI=. 013: SCI=    .0]
12657>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12658>      [ SMN=  33. 81: SMX=225. 43: SK=  .010]
12659> R0050: C00349-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12660>      COMPUTE DUALHYD         1.0 01: B6             3.29       .535 No_date   28:00    56.26  n/a      .000
12661>      Major System    /       1.0 02: B6-MJ            .00       .000 No_date   0:00      .00  n/a      .000
12662>      Minor System    \       1.0 03: B6-MN          3.29       .064 No_date   27:33    56.32  n/a      .000
12663>      [ MJSysSto=. 6238E+03,  Tot Or f Vol=. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
12664> R0050: C00350-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12665>      CONTINUOUS STANDHYD     1.0 01: EX-LAND        32.50      4.637 No_date   28:02    56.33 .691      .000
12666>      [ XIMP=. 50: TIMP=. 50]
12667>      [ LOSS= 2 : CN= 74.0]
12668>      [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12669>      [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  465. : MNI=. 013: SCI=    .0]
12670>      [ IaREC mp=   4. 00: IaRECper=    4. 00]
12671>      [ SMN=  36. 67: SMX=244. 49: SK=  .010]
12672> R0050: C00351-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12673>      COMPUTE DUALHYD         1.0 01: EX-LAND        32.50      4.637 No_date   28:02    56.33  n/a      .000
12674>      Major System    /       1.0 02: EX-LAND-MJ       .76      1.533 No_date   28:06    56.33  n/a      .000
12675>      Minor System    \       1.0 03: EX-LAND-MN     31.74      2.275 No_date   27:49    56.51  n/a      .000
12676>      [ MJSysSto=. 1365E+04,  Tot Or f Vol=. 4274E+03,  N- Or f=    1,  Tot Dur Or f=    0. hrs]
12677> R0050: C00352-------------DTmin-1D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
12678>      ADD HYD                 1.0 02: B7R-MJ           .
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12717>          [ Impervious     area:  IAimp= 1. 57: SLPI=1. 00: LGI= 262. : MNI=. 013: SCI=    .0]
12718>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12719>          [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
12720> R0050: C00359- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12721>      COMPUTE DUALHYD          1. 0  01:  A9            2. 44        . 481  No_date    28: 00    66. 69   n/ a      . 000
12722>          Major System    /    1. 0  02:  A9- MI          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12723>          Minor System    \    1. 0  03:  A9- MN          2. 44        . 481  No_date    28: 00    66. 69   n/ a      . 000
12724> R0050: C00360- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12725>      ADD HYD                  1. 0  02:  106A- 106     109. 50      3. 702  No_date    27: 59    56. 59   n/ a      . 000
12726>                         +     1. 0  02:  A9- MN          2. 44        . 481  No_date    28: 00    66. 69   n/ a      . 000
12727>                         SUM=  1. 0  01:  MI I06        111. 94      4. 177  No_date    28: 00    56. 81   n/ a      . 000
12728> R0050: C00361- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12729>      SAVE HYD                 1. 0  01:  MI I06        111. 94      4. 177  No_date    28: 00    56. 81   n/ a      . 000
12730>          f name : MI I06. 0050
12731>          remar k: Flows at  MI I06
12732> R0050: C00362- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12733>      ROUTE PI PE              - >  1. 0  02:  MI I06        111. 94      4. 177  No_date    28: 00    56. 81   n/ a      . 000
12734> *    [ RDT= 1. 00]  out <-        1. 0  01:  106- 107     111. 94      4. 129  No_date    28: 00    56. 81   n/ a      . 000
12735>          [ L/ S/ n=   123. /  . 100/ . 013]
12736>          [ Vmx= 1. 685: Dmx= 1. 556]
12737>          [ Di n= 1. 80: Dused= 1. 90]
12738> R0050: C00363- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12739>      CONTI NUOUS STANDHYD     1. 0  01:  AI 0             4. 14        . 602  No_date    28: 01    53. 20   . 653     . 000
12740>          [ XI MP= 35: TI MP=. 47]
12741>          [ LOSS= 2 : CN= 75. 0]
12742>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12743>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=  183. : MNI=. 013: SCI=    .0]
12744>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12745>          [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
12746> R0050: C00364- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12747>      COMPUTE DUALHYD          1. 0  01:  AI 0             4. 14        . 602  No_date    28: 01    53. 20   n/ a      . 000
12748>          Major System    /    1. 0  02:  AI 0- MI          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12749>          Minor System    \    1. 0  03:  AI 0- MN          4. 14        . 310  No_date    27: 50    53. 25   n/ a      . 000
12750>          [ MJ SysSt or= 1897E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hr s]
12751> R0050: C00365- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12752>      CONTI NUOUS STANDHYD     1. 0  01:  AI 1            10. 61       1. 720  No_date    28: 02    60. 69   . 745     . 000
12753>          [ XI MP= . 53: TI MP=. 62]
12754>          [ LOSS= 2 : CN= 75. 0]
12755>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12756>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=  379. : MNI=. 013: SCI=    .0]
12757>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12758>          [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
12759> R0050: C00366- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12760>      COMPUTE DUALHYD          1. 0  01:  AI 1            10. 61       1. 720  No_date    28: 02    60. 69   n/ a      . 000
12761>          Major System    /    1. 0  02:  AI 1- MI          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12762>          Minor System    \    1. 0  03:  AI 1- MN          10. 61       . 993  No_date    27: 52    60. 86   n/ a      . 000
12763>          [ MJ SysSt or= 4540E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hr s]
12764> R0050: C00367- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12765>      ADD HYD                  1. 0  02:  106- 107     111. 94      4. 129  No_date    28: 00    56. 81   n/ a      . 000
12766>                         +     1. 0  02:  AI 0- MN          4. 14        . 310  No_date    27: 50    53. 25   n/ a      . 000
12767>                         +     1. 0  02:  AI 1- MN          10. 61       . 993  No_date    27: 52    60. 86   n/ a      . 000
12768>                         SUM=  1. 0  01:  MI I07        126. 69      5. 432  No_date    28: 00    57. 03   n/ a      . 000
12769> R0050: C00368- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12770>      SAVE HYD                 1. 0  01:  MI I07        126. 69      5. 432  No_date    28: 00    57. 03   n/ a      . 000
12771>          f name : MI I07. 0050
12772>          remar k: Total  Flows at  MI I07
12773> R0050: C00369- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12774>      ROUTE PI PE              - >  1. 0  02:  MI I07        126. 69      5. 345  No_date    28: 00    57. 03   n/ a      . 000
12775> *    [ RDT= 1. 00]  out <-        1. 0  01:  107- 119     126. 69      5. 345  No_date    28: 00    57. 03   n/ a      . 000
12776>          [ L/ S/ n=   114. /  . 120/ . 013]
12777>          [ Vmx= 1. 927: Dmx= 1. 660]
12778>          [ Di n= 1. 80: Dused= 2. 02]
12779> R0050: C00370- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12780>      ROUTE PI PE              - >  1. 0  02:  107- 119     126. 69      5. 345  No_date    28: 00    57. 03   n/ a      . 000
12781> *    [ RDT= 1. 00]  out <-        1. 0  01:  119- 108     126. 69      5. 334  No_date    28: 01    57. 03   n/ a      . 000
12782>          [ L/ S/ n=    66. /  . 120/ . 013]
12783>          [ Vmx= 1. 919: Dmx= 1. 650]
12784>          [ Di n= 1. 80: Dused= 2. 01]
12785> R0050: C00371- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12786>      CONTI NUOUS STANDHYD     1. 0  01:  AI 2            12. 29       1. 938  No_date    28: 01    56. 26   . 690     . 000
12787>          [ XI MP= . 41: TI MP=. 54]
12788>          [ LOSS= 2 : CN= 75. 0]
12789>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12790>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=  183. : MNI=. 013: SCI=    .0]
12791>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12792>          [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
12793> R0050: C00372- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12794>      COMPUTE DUALHYD          1. 0  01:  AI 2            12. 29       1. 938  No_date    28: 01    56. 26   n/ a      . 000
12795>          Major System    /    1. 0  02:  AI 2- MI          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12796>          Minor System    \    1. 0  03:  AI 2- MN          12. 29       1. 029  No_date    27: 50    56. 44   n/ a      . 000
12797>          [ MJ SysSt or= 5545E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hr s]
12798> R0050: C00373- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12799>      CONTI NUOUS STANDHYD     1. 0  01:  AI 3             2. 59        . 487  No_date    28: 01    66. 69   . 818     . 000
12800>          [ XI MP= . 71: TI MP=. 71]
12801>          [ LOSS= 2 : CN= 75. 0]
12802>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12803>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=  379. : MNI=. 013: SCI=    .0]
12804>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12805>          [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
12806> R0050: C00374- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12807>      COMPUTE DUALHYD          1. 0  01:  AI 3             2. 59        . 487  No_date    28: 01    66. 69   n/ a      . 000
12808>          Major System    /    1. 0  02:  AI 3- MI          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12809>          Minor System    \    1. 0  03:  AI 3- MN          2. 59        . 487  No_date    28: 01    66. 69   n/ a      . 000
12810> R0050: C00375- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12811>      CONTI NUOUS STANDHYD     1. 0  01:  Pond- Bl ock      2. 94        . 430  No_date    28: 00    53. 21   . 653     . 000
12812>          [ XI MP= . 41: TI MP=. 41]
12813>          [ LOSS= 2 : CN= 75. 0]
12814>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12815>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=  183. : MNI=. 013: SCI=    .0]
12816>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12817>          [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
12818> R0050: C00376- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12819>      ADD HYD                  1. 0  02:  119- 108     126. 69      5. 334  No_date    28: 01    57. 03   n/ a      . 000
12820>                         +     1. 0  02:  AI 3- MN          2. 59        . 487  No_date    28: 01    66. 69   n/ a      . 000
12821>                         +     1. 0  02:  AI 2- MN          12. 29       1. 029  No_date    27: 50    56. 44   n/ a      . 000
12822>                         SUM=  1. 0  01:  MI I08        141. 57      6. 850  No_date    28: 01    57. 16   n/ a      . 000
12823> R0050: C00377- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12824>      SAVE HYD                 1. 0  01:  MI I08        141. 57      6. 850  No_date    28: 01    57. 16   n/ a      . 000
12825>          f name : MI I08. 0050
12826>          remar k: Total  Flows at  MI I08
12827> R0050: C00378- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12828>      ROUTE PI PE              - >  1. 0  02:  MI I08        141. 57      6. 850  No_date    28: 01    57. 16   n/ a      . 000
12829> *    [ RDT= 1. 00]  out <-        1. 0  01:  108- 116     141. 57      6. 810  No_date    28: 02    57. 16   n/ a      . 000
12830>          [ L/ S/ n=    77. /  . 130/ . 013]
12831>          [ Vmx= 2. 104: Dmx= 1. 784]
12832>          [ Di n= 1. 80: Dused= 2. 17]
12833> R0050: C00379- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12834>      ROUTE PI PE              - >  1. 0  02:  108- 116     141. 57      6. 810  No_date    28: 02    57. 16   n/ a      . 000
12835> *    [ RDT= 1. 00]  out <-        1. 0  01:  116- corrig  141. 57      6. 771  No_date    28: 02    57. 16   n/ a      . 000
12836>          [ L/ S/ n=    80. /  . 130/ . 013]
12837>          [ Vmx= 2. 101: Dmx= 1. 780]
12838>          [ Di n= 1. 80: Dused= 2. 17]
12839> R0050: C00380- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12840>      ADD HYD                  1. 0  02:  116- corrig  141. 57      6. 771  No_date    28: 02    57. 16   n/ a      . 000
12841>                         +     1. 0  02:  Pond- Bl ock      2. 94        . 430  No_date    28: 00    53. 21   n/ a      . 000
12842>                         SUM=  1. 0  01:  Corrigan      144. 51      7. 185  No_date    28: 02    57. 08   n/ a      . 000
12843> R0050: C00381- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12844>      SAVE HYD                 1. 0  01:  Corrigan      144. 51      7. 185  No_date    28: 02    57. 08   n/ a      . 000
12845>          f name : Corrigan. 0050
12846>          remar k: HYD_COMMENT=[ ' Total  Flows at  Corrigan Pond]
12847> R0050: C00382- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12848>      ROUTE RESERVOI R -  >  1. 0  02:  Corrigan      144. 51      7. 185  No_date    28: 02    57. 08   n/ a      . 000
12849>                     out <=    1. 0  01:  Co- P          144. 51      6. 335  No_date    28: 26    57. 08   n/ a      . 000
12850>                overflow <=    1. 0  03:  Co- P- OVF          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12851>          [ MJ St oSked= 1027E+01   m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=    0. hr s]
12852> R0050: C00383- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12853>      ADD HYD                  1. 0  02:  Co- P- OVF          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12854>                         +     1. 0  02:  Co- P          144. 51      6. 335  No_date    28: 26    57. 08   n/ a      . 000
12855>                         +     1. 0  02:  N_ TO         54839. 66    128. 918  No_date    36: 18    34. 08   n/ a      . 000
12856>                         +     1. 0  02:  MI 105- JR        35. 42       8. 432  No_date    28: 10    56. 62   n/ a      . 000
12857>                         +     1. 0  02:  AR- MI - JR          . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12858>                         +     1. 0  02:  A9- MI            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12859>                         +     1. 0  02:  AI 0- MI            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12860>                         +     1. 0  02:  AI 1- MI            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12861>                         +     1. 0  02:  AI 2- MI            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12862>                         +     1. 0  02:  AI 3- MI            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12863>                         SUM=  1. 0  01:  corrig       55019. 59    129. 561  No_date    36: 17    34. 16   n/ a      . 000
12864> R0050: C00384- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12865>      SAVE HYD                 1. 0  01:  corrig       55019. 59    129. 561  No_date    36: 17    34. 16   n/ a      . 000
12866>          f name : corrig. 0050
12867>          remar k: Total  Flows at  Corrigan Pond
12868> #*************************************************************************
12869> #     Corrigan Pond 1
12870> #     - Rating curve obtained from Barrhaven South MSS modeling
12871> #     - Tributary Drainage Area to MSS Pond 1 = 145 ha
12872> #*************************************************************************
12873> #
12874> # Hydrograph from Corrigan Drain routed to Jockvale Road
12875> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
12876> #
12877> R0050: C00385- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12878>      ROUTE CHANNEL    - >     1. 0  02:  corrig       55019. 59    129. 561  No_date    36: 17    34. 16   n/ a      . 000
12879>          [ RDT= 1. 00]  out <-        1. 0  01:  N_ M          55019. 59    129. 543  No_date    36: 20    34. 16   n/ a      . 000
12880>          [ L/ S/ n=   580. /  . 445/ . 045]
12881>          [ Vmx= 2. 080: Dmx= 2. 001]
12882> #*************************************************************************
12883> #     Catchment  MI LLS
12884> #     - To SWM Facility north of the Jock
12885> #     - Primarily residental development
12886> #*************************************************************************
12887> R0050: C00386- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12888>      CONTI NUOUS STANDHYD     1. 0  01:  MI LLS          175. 99     17. 756  No_date    28: 06    50. 66   . 622     . 000
12889>          [ XI MP= . 38: TI MP=. 38]
12890>          [ LOSS= 2 : CN= 74. 0]
12891>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12892>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=1118. : MNI=. 013: SCI=    .0]
12893>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12894>          [ SMI N= 36. 67:  SMXx=244. 49:  SK=  . 010]
12895> #*************************************************************************
12896> #     Chapman  MI lls SWM Pond
12897> #     - Rating curve obtained from CCL hydraulic modeling
12898> #*************************************************************************
12899> R0050: C00387- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12900>      ROUTE RESERVOI R -  >  1. 0  02:  MI LLS          175. 99     17. 756  No_date    28: 06    50. 66   n/ a      . 000
12901>                     out <=    1. 0  01:  MI LL_ P          153. 87      4. 050  No_date    28: 11    50. 66   n/ a      . 000
12902>                overflow <=    1. 0  03:  MI L- OV           22. 12      12. 440  No_date    28: 11    50. 66   n/ a      . 000
12903>          [ MJ St oSked= 2310E+01   m3,  Tot Or f Vol =. 1121E+01   m3,  N- Or f=     2,  Tot Dur Or f=    1. hr s]
12904> R0050: C00388- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12905>      ADD HYD                  1. 0  02:  N_ MI          55019. 59    129. 543  No_date    36: 20    34. 16   n/ a      . 000
12906>                         +     1. 0  02:  MI L- OV           22. 12      12. 440  No_date    28: 11    50. 66   n/ a      . 000
12907>                         +     1. 0  02:  MI LL_ P          153. 87      4. 050  No_date    28: 11    50. 66   n/ a      . 000
12908>                         SUM=  1. 0  01:  SN_ MI         55195. 58    130. 186  No_date    36: 19    34. 21   n/ a      . 000
12909> R0050: C00389- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12910>      SAVE HYD                 1. 0  01:  SN_ MI         55195. 58    130. 186  No_date    36: 19    34. 21   n/ a      . 000
12911>          f name : SN_ MI . 0050
12912>          remar k: Total  Flows at  Jockvale Road
12913> #
12914> # Hydrograph from Jockvale Road routed to Heart's Desire
12915> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
12916> #
12917> R0050: C00390- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12918>      ROUTE CHANNEL    - >     1. 0  02:  SN_ MI         55195. 58    130. 186  No_date    36: 19    34. 21   n/ a      . 000
12919>          [ RDT= 1. 00]  out <-        1. 0  01:  N_ DE          55195. 58    129. 897  No_date    36: 32    34. 21   n/ a      . 000
12920>          [ L/ S/ n=  1962. /  . 223/ . 045]
12921>          [ Vmx= 1. 586: Dmx= 2. 514]
12922> #*************************************************************************
12923> #     Catchment  DESI RE
12924> #     - To Jock River (north of the Jock)
12925> #     - Rural-estate subdivision (Heart's Desire Community)
12926> #*************************************************************************
12927> R0050: C00391- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12928>      CONTI NUOUS STANDHYD     1. 0  01:  DESI RE           23. 78       2. 563  No_date    28: 03    46. 85   . 575     . 000
12929>          [ XI MP= . 25: TI MP=. 25]
12930>          [ LOSS= 2 : CN= 77. 0]
12931>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12932>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=  400. : MNI=. 013: SCI=    .0]
12933>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12934>          [ SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
12935> #*************************************************************************
12936> #     Catchment  JOCKVA
12937> #     - To Jockvale SWM Facility
12938> #     - Residential development & golf course
12939> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
12940> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX- LAND 32.5 ha as
12941> #*************************************************************************
12942> R0050: C00392- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12943>      CONTI NUOUS STANDHYD     1. 0  01:  JOCKVA          225. 13      25. 253  No_date    28: 07    56. 33   . 691     . 000
12944>          [ XI MP= . 50: TI MP=. 50]
12945>          [ LOSS= 2 : CN= 74. 0]
12946>          [ Pervious      area:  IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
12947>          [ Impervious    area:  IAimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=    .0]
12948>          [ IaRECi mp=    4. 00:  IaRECper=    4. 00]
12949>          [ SMI N= 36. 67:  SMXx=244. 49:  SK=  . 010]
12950> R0050: C00393- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12951>      ADD HYD                  1. 0  02:  EX- LAND- MN          31. 74       2. 275  No_date    27: 49    56. 55   n/ a      . 000
12952>                         +     1. 0  02:  JOCKVA          225. 13      25. 253  No_date    28: 07    56. 33   n/ a      . 000
12953>                         +     1. 0  02:  B2- MI            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12954>                         +     1. 0  02:  B3- MI            . 02        . 083  No_date    28: 09    56. 26   n/ a      . 000
12955>                         SUM=  1. 0  01:  JOCKVA- TO      256. 89     27. 528  No_date    28: 07    56. 36   n/ a      . 000
12956> R0050: C00394- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12957>      SAVE HYD                 1. 0  01:  JOCKVA- TO      256. 89     27. 528  No_date    28: 07    56. 36   n/ a      . 000
12958>          f name : JOCKVA- TO. 0050
12959>          remar k: Total  Flows at  KB first  pond
12960> #*************************************************************************
12961> #     Jockvale SWM Facility
12962> #     - Rating curve obtained from Jockvale Servicing Study (CCL, 1999)
12963> #*************************************************************************
12964> R0050: C00395- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12965>      ROUTE RESERVOI R -  >  1. 0  02:  JOCKVA- TO      256. 89     27. 528  No_date    28: 07    56. 36   n/ a      . 000
12966>                     out <=    1. 0  01:  JOCK_ P          256. 89     10. 991  No_date    28: 38    56. 36   n/ a      . 000
12967>                overflow <=    1. 0  03:  JO- OVF            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12968>          [ MJ St oSked= 5928E+01   m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=    0. hr s]
12969> R0050: C00396- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12970>      ADD HYD                  1. 0  02:  N_ DE          55195. 58    129. 897  No_date    36: 32    34. 21   n/ a      . 000
12971>                         +     1. 0  02:  DESI RE           23. 78       2. 563  No_date    28: 03    46. 85   n/ a      . 000
12972>                         +     1. 0  02:  JO- OVF            . 00        . 000  No_date    0: 00      . 00   n/ a      . 000
12973>                         +     1. 0  02:  JOCK_ P          256. 89     10. 991  No_date    28: 38    56. 36   n/ a      . 000
12974>                         SUM=  1. 0  01:  SN_ DE         55476. 26    130. 865  No_date    36: 30    34. 32   n/ a      . 000
12975> R0050: C00397- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12976>      SAVE HYD                 1. 0  01:  SN_ DE         55476. 26    130. 865  No_date    36: 30    34. 32   n/ a      . 000
12977>          f name : SN_ DE. 0050
12978>          remar k: Total  Flows at  Heart's Desire
12979> #
12980> # Hydrograph from Heart's Desire routed to Rideau River
12981> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
12982> #
12983> R0050: C00398- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12984>      ROUTE CHANNEL    - >     1. 0  02:  SN_ DE         55476. 26    130. 865  No_date    36: 30    34. 32   n/ a      . 000
12985>          [ RDT= 1. 00]  out <-        1. 0  01:  N1          55476. 26    130. 849  No_date    36: 34    34. 32   n/ a      . 000
12986>          [ L/ S/ n=   563. /  . 967/ . 045]
12987>          [ Vmx= 2. 136: Dmx= 1. 260]
12988> #*************************************************************************
12989> #     Catchment  S- 2
12990> #     - To Jock River (north and south)
12991> #     - Undeveloped floodplain and river
12992> #*************************************************************************
12993> R0050: C00399- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12994>      CONTI NUOUS NASHYD       1. 0  01:  S- 2            102. 94       4. 795  No_date    28: 20    35. 39   . 434     . 000
12995>          [ CN= 72. 0:  N= 3. 00:  Tp=    . 00]
12996>          [ IaREC= 4. 00:  SMN= 39. 75:  SMXx=264. 99:  SK=  . 010]
12997>          [ InterEventTi me=  12. 00]
12998> R0050: C00400- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12999>      ADD HYD                  1. 0  02:  N1            55476. 26    130. 849  No_date    36: 34    34. 32   n/ a      . 000
13000>                         +     1. 0  02:  S- 2            102. 94       4. 795  No_date    28: 20    35. 39   n/ a      . 000
13001>                         SUM=  1. 0  01:  SN_ N1         55579. 20    131. 124  No_date    36: 33    34. 32   n/ a      . 000
13002> R0050: C00401- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - - - DWFcms
13003>      SAVE HYD                 1. 0  01:  SN_ N1         55579. 20    131. 124  No_date    36: 33    34. 32   n/ a      . 000
13004>          f name : SN_ N1. 0050
13005>          remar k: Total  Flows at  Rideau River
13006> ##############################################################################
13007>    ** END OF RUN :    99
13008>
13009> ******************************************************************************************************
13010>
13011>
13012>
13013>
13014>
13015>  RUN#: COMMAND#
13016> R0100: C00001- ----------------------------------------------------------------------------------------
13017>      START
13018>          [ TZERO =      . 00 hrs on          0]
13019>          [ METOUT=    2    (1=imperial, 2=metric output)]
13020>          [ NSTORM=    1 ]
13021>          [ NRUN  = 0100 ]
13022> #*************************************************************************
13023> #  SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / I NPUT DATA FI LE
13024> #*************************************************************************
13025> #  Project Name: [ Jock Ri ver]      Project Number: [ 1474- 16]
13026> #  Date          : 04- 03- 2021
13027> #  Modeller      : [ MM]
13028> #  Company       : JFSA nc.
13029> #  License #     :  2549237
13030> #*************************************************************************
13031> # CALI BRATI ON OF SUMMER MODEL PARAMETERS
13032> # USI NG CONTI NUOUS SI MULATI ONS
13033> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
13034> # Use data collected from May 1st to July 14, 2003
13035> # 2020- 11- 30 change TMSTO in COMPUTE DUALHYD ( TMSTO = 0. 1 instead of 0. 0001)
13036> # 2020- 12- 01 correct pond curve values
13037> # 2020- 12- 01 change W, CLAR, BRAZ, SLMP to 0. 55, SLPI =[ 0. 5]( % ) ( impervious slope) , and LGI up to 700m
13038> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 2462 ( NHYDout=[ ' N_ TO' ] , NHYDin=[ ' SN_ TO' ] ) from 0. 033 % ( as per S
13039> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 5002 ( NHYDout=[ ' N_ WC' ] , NHYDin=[ ' SN_ CE' ] ) from 0. 01 % ( as per St
13040> # ----------------------------------------------------------------------------
13041> R0100: C00002- ----------------------------------------------------------------------------------------
13042>      READ STORM
13043>          Filename = storm 001
13044>          Comment  = Pluie SCS de 24 hres 1: 100 ans pour Ottawa CDA
13045>          [ SDT= 10. 00: SDUR=  24. 00: PTOT=  88. 57]
13046> R0100: C00003- ----------------------------------------------------------------------------------------
13047>      MODI FY STORM
13048>          [ REFACT=   1. 00: TSHI FT= 960. 00 mi n]
13049>          [ SDT= 10. 00: SDUR=  40. 00: PTOT=  88. 57]
13050> R0100: C00004- ----------------------------------------------------------------------------------------
13051>      DEFAULT VALUES
13052>          Filename = T: \ PROJ\ 1474- 16\ Design\ 20201026- QuantityControl Analysis\ SWMHYMO_ SMR- Model\ updated3\ CitiGate. DEF
13053>          I CASEdv   = 1 (read and print data)
13054>          FileTitle= File comment: [ Based onvarious calibration exercises in Onta
13055>                     THE FOLLOWING PARAMETERS ARE USED I N THE DESI GN STANDHYD COM
13056>          Horton's infiltration equation parameters:
13057>          [ Fo= 76. 20 mm/ hr]  [ Fc=13. 20 mm/ hr]  [ DCAY= 4. 14 /hr]  [ F=    . 00 mm]
13058>          Parameters for PERVI OUS surfaces in STANDHYD:
13059>          [ I Aper=    4. 67 mm]  [ LGP=50. 00 m]  [ MNP=  . 250]
13060>          Parameters for I MPERVI OUS surfaces in STANDHYD:
13061>          [ I Aimp=    1. 57 mm]  [ CLI =   1. 50]   [ MNI =  . 013]
13062>          Parameters used in NASHYD:
13063>          [ Ia=    4. 67 mm]  [ N= 3. 00]
13064>          Average monthly Pan Evaporation data in     ( mm)
13065>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
13066>     . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00
13067>          Average monthly Potential Evapotranspiration in     ( mm)
13068>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
13069>     . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00
13070> R0100: C00005- ----------------------------------------------------------------------------------------
13071>      COMPUTE API
13072>          [ API ini= 50. 00:  API kdy=  . 8500:  API kdt=  . 9989]
13073>          [ API max= 119. 84:  API avg=  69. 19:  API mi n=  44. 87]
13074> #
13075> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
13076> # of 1. 32
13077> R0100: C
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13091> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13092> # of 1.80
13093> R0100: C00008-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13094>      CONTINUOUS NASHYD       1.0 01:JR_GWM      3074.00   10.428 No_date   39:59   28.29 .319     .000
13095>        [CN= 55.0: N= 3.00: Tp=11.33]
13096>        [IaREC= 4.00: SMN= 83.24: SMAX=554.96: SK= .010]
13097>        [InterEventTime= 12.00]
13098> R0100: C00009-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13099>      CONTINUOUS NASHYD       1.0 01:JR_ASH      1781.00   19.695 No_date   32:38   42.49 .480     .000
13100>        [CN= 72.0: N= 3.00: Tp= 3.91]
13101>        [IaREC= 4.00: SMN= 39.75: SMAX=264.99: SK= .010]
13102>        [InterEventTime= 12.00]
13103> R0100: C00010-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13104>      CONTINUOUS NASHYD       1.0 01:SW_11        500.00   10.735 No_date   29:21   36.76 .415     .000
13105>        [CN= 66.0: N= 3.00: Tp= 1.24]
13106>        [IaREC= 4.00: SMN= 52.62: SMAX=350.79: SK= .010]
13107>        [InterEventTime= 12.00]
13108> #
13109> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13110> # of 1.80
13111> R0100: C00011-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13112>      CONTINUOUS NASHYD       1.0 01:NN_CK       1917.00   14.496 No_date   34:24   36.76 .415     .000
13113>        [CN= 66.0: N= 3.00: Tp= 5.29]
13114>        [IaREC= 4.00: SMN= 52.62: SMAX=350.79: SK= .010]
13115>        [InterEventTime= 12.00]
13116> #
13117> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13118> # of 1.52
13119> R0100: C00012-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13120>      CONTINUOUS NASHYD       1.0 01:SW_10       5666.00   37.663 No_date   37:48   42.49 .480     .000
13121>        [CN= 72.0: N= 3.00: Tp= 8.00]
13122>        [IaREC= 4.00: SMN= 39.75: SMAX=264.99: SK= .010]
13123>        [InterEventTime= 12.00]
13124> #
13125> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13126> # of 1.75
13127> R0100: C00013-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13128>      CONTINUOUS NASHYD       1.0 01:KG_CK       8376.00   36.118 No_date   39:59   36.76 .415     .000
13129>        [CN= 66.0: N= 3.00: Tp=11.66]
13130>        [IaREC= 4.00: SMN= 52.62: SMAX=350.79: SK= .010]
13131>        [InterEventTime= 12.00]
13132> #
13133> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13134> # of 1.68
13135> R0100: C00014-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13136>      CONTINUOUS NASHYD       1.0 01:SW_9        1132.00   16.501 No_date   30:52   40.82 .461     .000
13137>        [CN= 70.0: N= 3.00: Tp= 2.51]
13138>        [IaREC= 4.00: SMN= 43.07: SMAX=287.10: SK= .010]
13139>        [InterEventTime= 12.00]
13140> #
13141> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13142> # of 1.82
13143> R0100: C00015-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13144>      CONTINUOUS NASHYD       1.0 01:NC_CK       4464.00   18.060 No_date   39:59   33.61 .380     .000
13145>        [CN= 62.0: N= 3.00: Tp=11.32]
13146>        [IaREC= 4.00: SMN= 61.90: SMAX=412.66: SK= .010]
13147>        [InterEventTime= 12.00]
13148> #
13149> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13150> # of 1.80
13151> R0100: C00016-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13152>      CONTINUOUS NASHYD       1.0 01:SW_8         131.00    3.259 No_date   28:57   34.39 .388     .000
13153>        [CN= 63.0: N= 3.00: Tp=  .90]
13154>        [IaREC= 4.00: SMN= 59.42: SMAX=396.11: SK= .010]
13155>        [InterEventTime= 12.00]
13156> #
13157> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13158> # of 1.65
13159> R0100: C00017-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13160>      CONTINUOUS NASHYD       1.0 01:HB_DR       3854.00   21.238 No_date   38:28   36.76 .415     .000
13161>        [CN= 66.0: N= 3.00: Tp= 8.42]
13162>        [IaREC= 4.00: SMN= 52.62: SMAX=350.79: SK= .010]
13163>        [InterEventTime= 12.00]
13164> #
13165> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13166> # of 1.82
13167> R0100: C00018-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13168>      CONTINUOUS NASHYD       1.0 01:SW_7        3197.00   16.421 No_date   36:21   29.79 .336     .000
13169>        [CN= 57.0: N= 3.00: Tp= 6.65]
13170>        [IaREC= 4.00: SMN= 76.52: SMAX=508.81: SK= .010]
13171>        [InterEventTime= 12.00]
13172> #
13173> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13174> # of 1.75
13175> R0100: C00019-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13176>      CONTINUOUS NASHYD       1.0 01:SW_6         165.00    1.511 No_date   33:01   37.57 .424     .000
13177>        [CN= 67.0: N= 3.00: Tp= 4.18]
13178>        [IaREC= 4.00: SMN= 50.55: SMAX=336.97: SK= .010]
13179>        [InterEventTime= 12.00]
13180> #
13181> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13182> # of 1.67
13183> R0100: C00020-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13184>      CONTINUOUS NASHYD       1.0 01:VG_DR       1332.00   10.882 No_date   35:10   42.49 .480     .000
13185>        [CN= 72.0: N= 3.00: Tp= 5.95]
13186>        [IaREC= 4.00: SMN= 39.75: SMAX=264.99: SK= .010]
13187>        [InterEventTime= 12.00]
13188> R0100: C00021-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13189>      CONTINUOUS NASHYD       1.0 01:SW_5         224.00    9.576 No_date   28:44   47.62 .538     .000
13190>        [CN= 77.0: N= 3.00: Tp= .75]
13191>        [IaREC= 4.00: SMN= 31.15: SMAX=207.66: SK= .010]
13192>        [InterEventTime= 12.00]
13193> #
13194> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13195> # of 1.20
13196> R0100: C00022-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13197>      CONTINUOUS NASHYD       1.0 01:FL_CK       4945.00   52.056 No_date   33:16   44.17 .499     .000
13198>        [CN= 74.0: N= 3.00: Tp= 4.45]
13199>        [IaREC= 4.00: SMN= 36.67: SMAX=244.49: SK= .010]
13200>        [InterEventTime= 12.00]
13201> R0100: C00023-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13202>      CONTINUOUS NASHYD       1.0 01:SW_5A2        20.00    1.097 No_date   28:35   52.06 .588     .000
13203>        [CN= 81.0: N= 3.00: Tp=  .62]
13204>        [IaREC= 4.00: SMN= 25.21: SMAX=168.09: SK= .010]
13205>        [InterEventTime= 12.00]
13206> #
13207> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
13208> # of 1.61
13209> R0100: C00024-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13210>      CONTINUOUS NASHYD       1.0 01:SW_5A1       1412.00   10.184 No_date   37:44   45.88 .518     .000
13211>        [CN= 75.0: N= 3.00: Tp= 8.00]
13212>        [IaREC= 4.00: SMN= 33.81: SMAX=225.43: SK= .010]
13213>        [InterEventTime= 12.00]
13214> R0100: C00025-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13215>      CONTINUOUS NASHYD       1.0 01:SW_4         585.00   14.953 No_date   29:55   52.06 .588     .000
13216>        [CN= 81.0: N= 3.00: Tp= 1.75]
13217>        [IaREC= 4.00: SMN= 25.21: SMAX=168.09: SK= .010]
13218>        [InterEventTime= 12.00]
13219> R0100: C00026-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13220>      CONTINUOUS NASHYD       1.0 01:LM_CK       1021.00   19.782 No_date   30:45   51.16 .578     .000
13221>        [CN= 80.0: N= 3.00: Tp= 2.46]
13222>        [IaREC= 4.00: SMN= 26.32: SMAX=175.50: SK= .010]
13223>        [InterEventTime= 12.00]
13224> R0100: C00027-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13225>      CONTINUOUS NASHYD       1.0 01:SW_2         177.00    7.567 No_date   28:44   47.62 .538     .000
13226>        [CN= 77.0: N= 3.00: Tp= .75]
13227>        [IaREC= 4.00: SMN= 31.15: SMAX=207.66: SK= .010]
13228>        [InterEventTime= 12.00]
13229> R0100: C00028-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13230>      CONTINUOUS NASHYD       1.0 01:SM_DR       1122.00   17.981 No_date   31:42   52.06 .588     .000
13231>        [CN= 81.0: N= 3.00: Tp= 3.25]
13232>        [IaREC= 4.00: SMN= 25.21: SMAX=168.09: SK= .010]
13233>        [InterEventTime= 12.00]
13234> R0100: C00029-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13235>      CONTINUOUS NASHYD       1.0 01:MD_DR       2737.00   40.730 No_date   31:28   46.75 .528     .000
13236>        [CN= 76.0: N= 3.00: Tp= 3.03]
13237>        [IaREC= 4.00: SMN= 32.46: SMAX=216.39: SK= .010]
13238>        [InterEventTime= 12.00]
13239> #
13240> # Routing hydrographs
13241> #
13242> # Starting with the addition of Jock River Headwater and Subwatershed 13
13243> #
13244> R0100: C00030-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13245>      ADD HYD                 1.0 02:JR_HW       3680.00   21.616 No_date   36:52   35.18 n/a      .000
13246>                          +   1.0 02:SW_13        971.00    8.203 No_date   32:33   32.84 n/a      .000
13247>                      SUM=    1.0 01:S_N13       4651.00   27.660 No_date   35:21   34.69 n/a      .000
13248> #
13249> # Sum of hydrographs from Node 13 routed to Node 13A
13250> # (Approximated cross-section - see cross-section 258)
13251> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
13252> #
13253> R0100: C00031-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13254>      ROUTE CHANNEL     ->    1.0 02:S_N13       4651.00   27.660 No_date   35:21   34.69 n/a      .000
13255>        [RDT= 1.00] out <-    1.0 01:N13A        4651.00   22.598 No_date   38:56   34.69 n/a      .000
13256>        [L/S/n= 9074./ .022/ .040]
13257>        [Vmx=  .598: Dmx= 4.178]
13258> #
13259> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
13260> #
13261> R0100: C00032-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13262>      ADD HYD                 1.0 02:N13A        4651.00   22.598 No_date   38:56   34.69 n/a      .000
13263>                          +   1.0 02:JR_GWM      3074.00   10.428 No_date   39:59   28.29 n/a      .000
13264>                      SUM=    1.0 01:SN13A       7725.00   32.845 No_date   39:44   32.14 n/a      .000
13265> #
13266> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
13267> #
13268> R0100: C00033-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13269>      ROUTE RESERVOIR ->    1.0 02:SN13A       7725.00   32.845 No_date   39:44   32.14 n/a      .000
13270>                    out <=  1.0 01:RES_GM      7725.00    3.950 No_date   62:26   32.14 n/a      .000
13271>        [MxStOked=  1796E+03  m3]
13272> #
13273> R0100: C00034-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13274>      SAVE HYD                1.0 01:RES_GM      7725.00    3.950 No_date   62:26   32.14 n/a      .000
13275>          fname : H_RESGM
13276>          remark: Outflow from Res GM
13277> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
13278> # (Approximated cross-section - see cross-section 258)
13279> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
13280> R0100: C00035-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13281>      ROUTE CHANNEL     ->    1.0 02:RES_GM      7725.00    3.950 No_date   62:26   32.14 n/a      .000
13282>        [RDT= 1.00] out <-    1.0 01:N12         7725.00    3.947 No_date   64:43   32.14 n/a      .000
13283>        [L/S/n= 5926./ .076/ .040]
13284>        [Vmx=  .560: Dmx= 1.560]
13285> #
13286> # Addition of Subwatershed Jock River at Ashton to Node 12
13287> #
13288> R0100: C00036-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13289>      ADD HYD                 1.0 02:N12         7725.00    3.947 No_date   64:43   32.14 n/a      .000
13290>                          +   1.0 02:JR_ASH      1781.00   19.695 No_date   32:38   42.49 n/a      .000
13291>                      SUM=    1.0 01:S_N12       9506.00   21.745 No_date   32:41   34.08 n/a      .000
13292> R0100: C00037-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13293>      SAVE HYD                1.0 01:S_N12       9506.00   21.745 No_date   32:41   34.08 n/a      .000
13294>          fname : H_SN12
13295>          remark: flow at S_N12 near Ashton
13296> #
13297> # Sum of hydrographs from Node 12 routed to Node 11
13298> # (Approximated cross-section - see cross-section 258)
13299> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
13300> #
13301> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
13302> #
13303> R0100: C00038-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13304>      ROUTE CHANNEL     ->    1.0 02:S_N12       9506.00   21.745 No_date   32:41   34.08 n/a      .000
13305>        [RDT= 1.00] out <-    1.0 01:Dum11       9506.00   21.522 No_date   32:57   34.08 n/a      .000
13306>        [L/S/n=  972./ .054/ .040]
13307>        [Vmx=  .777: Dmx= 3.194]
13308> #
13309> # Addition of Subwatershed 11 and No Name Creek to Node 11
13310> #
13311> R0100: C00039-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13312>      ADD HYD                 1.0 02:Dum11       9506.00   21.522 No_date   32:57   34.08 n/a      .000
13313>                          +   1.0 02:SW_11        500.00   10.735 No_date   29:21   36.76 n/a      .000
13314>                          +   1.0 02:NN_CK       1917.00   14.496 No_date   34:24   36.76 n/a      .000
13315>                      SUM=    1.0 01:S_N11       11923.00  38.138 No_date   32:59   34.62 n/a      .000
13316> #
13317> # Sum of hydrographs from Node 11 routed to Node 10
13318> # Section 1
13319> #
13320> R0100: C00040-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13321>      ROUTE CHANNEL     ->    1.0 02:S_N11       11923.00  38.138 No_date   32:59   34.62 n/a      .000
13322>        [RDT= 1.00] out <-    1.0 01:N10         11923.00  23.609 No_date   39:19   34.62 n/a      .000
13323>        [L/S/n=14028./ .157/ .040]
13324>        [Vmx=  .486: Dmx= 1.492]
13325> #
13326> # Addition of Subwatershed 10 to Node 10
13327> #
13328> R0100: C00041-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13329>      ADD HYD                 1.0 02:N10         11923.00  23.609 No_date   39:19   34.62 n/a      .000
13330>                          +   1.0 02:SW_10        5666.00   37.663 No_date   37:48   42.49 n/a      .000
13331>                      SUM=    1.0 01:S_N10       17589.00  61.058 No_date   38:16   37.16 n/a      .000
13332> R0100: C00042-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13333>      SAVE HYD                1.0 01:S_N10       17589.00  61.058 No_date   38:16   37.16 n/a      .000
13334>          fname : H_SN10
13335>          remark: flow at S_N10:  N10 + SW_10
13336> # Addition of Kings Creek to S_N10
13337> #
13338> R0100: C00043-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13339>      ADD HYD                 1.0 02:S_N10       17589.00  61.058 No_date   38:16   37.16 n/a      .000
13340>                          +   1.0 02:KG_CK       8376.00   36.118 No_date   39:59   36.76 n/a      .000
13341>                      SUM=    1.0 01:S_N10A      25965.00  96.054 No_date   39:40   37.03 n/a      .000
13342> #
13343> # Sum of hydrographs from Node 10 routed to Node 9
13344> # Section 2
13345> #
13346> R0100: C00044-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13347>      ROUTE CHANNEL     ->    1.0 02:S_N10A      25965.00  96.054 No_date   39:40   37.03 n/a      .000
13348>        [RDT= 1.00] out <-    1.0 01:N9          25965.00  94.262 No_date   39:59   37.03 n/a      .000
13349>        [L/S/n= 3982./ .075/ .040]
13350>        [Vmx=  .775: Dmx= 2.151]
13351> #
13352> # Addition of Subwatershed 9 and Nichols Creek to Node 9
13353> #
13354> R0100: C00045-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13355>      ADD HYD                 1.0 02:N9          25965.00  94.262 No_date   39:59   37.03 n/a      .000
13356>                          +   1.0 02:SW_9         1132.00   16.501 No_date   30:52   40.83 n/a      .000
13357>                          +   1.0 02:NC_CK       4464.00   18.060 No_date   39:59   33.61 n/a      .000
13358>                      SUM=    1.0 01:S_N9        31561.00  115.681 No_date   39:59   36.68 n/a      .000
13359> #
13360> # Sum of hydrographs from Node 9 routed to Node 8
13361> # Section 3
13362> #
13363> R0100: C00046-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13364>      ROUTE CHANNEL     ->    1.0 02:S_N9        31561.00  115.681 No_date   39:59   36.68 n/a      .000
13365>        [RDT= 1.00] out <-    1.0 01:N8          31561.00  109.395 No_date   39:59   36.68 n/a      .000
13366>        [L/S/n= 2269./ .088/ .045]
13367>        [Vmx=  .374: Dmx= 1.924]
13368> #
13369> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
13370> #
13371> R0100: C00047-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13372>      ADD HYD                 1.0 02:N8          31561.00  109.395 No_date   39:59   36.68 n/a      .000
13373>                          +   1.0 02:SW_8         131.00    3.259 No_date   28:57   34.39 n/a      .000
13374>                          +   1.0 02:HB_DR       3854.00   21.238 No_date   38:28   36.76 n/a      .000
13375>                      SUM=    1.0 01:S_N8        35546.00  130.593 No_date   39:59   36.68 n/a      .000
13376> #
13377> # Sum of hydrographs from Node 8 routed to Node 7
13378> # Section 4
13379> #
13380> R0100: C00048-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13381>      ROUTE CHANNEL     ->    1.0 02:S_N8        35546.00  130.593 No_date   39:59   36.68 n/a      .000
13382>        [RDT= 1.00] out <-    1.0 01:N7          35546.00  111.942 No_date   44:52   36.68 n/a      .000
13383>        [L/S/n= 3750./ .053/ .070]
13384>        [Vmx=  .237: Dmx= 2.412]
13385> #
13386> # Addition of Subwatershed 7 to Node 7
13387> #
13388> R0100: C00049-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13389>      ADD HYD                 1.0 02:N7          35546.00  111.942 No_date   44:52   36.68 n/a      .000
13390>                          +   1.0 02:SW_7        3197.00   16.421 No_date   36:21   29.79 n/a      .000
13391>                      SUM=    1.0 01:S_N7        38743.00  120.740 No_date   43:36   36.11 n/a      .000
13392> R0100: C00050-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13393>      SAVE HYD                1.0 01:S_N7        38743.00  120.740 No_date   43:36   36.11 n/a      .000
13394>          fname : H_SN7
13395>          remark: flow at S_N7:  N7 + SW_7
13396> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
13397> # Storage area and volumes were estimted from available topo maps.
13398> # Release rate from fen was assumed to be controlled by the downstream
13399> # river cross-section for summer conditions.  It is was assumed that for up to
13400> # 0.75 m of water, the main channel of the river provided the storage.  Above
13401> # this depth, the wetland starts to signigicantly store water.
13402> #
13403> R0100: C00051-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13404>      ROUTE RESERVOIR ->    1.0 02:S_N7        38743.00  120.740 No_date   43:36   36.11 n/a      .000
13405>                    out <=  1.0 01:RES_RF      38743.00  62.351 No_date   58:25   36.11 n/a      .000
13406>        [MxStOked=  5140E+03  m3]
13407> R0100: C00052-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13408>      SAVE HYD                1.0 01:RES_RF      38743.00  62.351 No_date   58:25   36.11 n/a      .000
13409>          fname : H_ResRF
13410>          remark: outflow of Richmond Fen
13411> #
13412> # Sum of hydrographs from Node 7 routed to Node 6
13413> # Section 5
13414> #
13415> R0100: C00053-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13416>      ROUTE CHANNEL     ->    1.0 02:RES_RF      38743.00  62.351 No_date   58:25   36.11 n/a      .000
13417>        [RDT= 1.00] out <-    1.0 01:N6          38743.00  62.067 No_date   59:46   36.11 n/a      .000
13418>        [L/S/n= 3056./ .082/ .025]
13419>        [Vmx=  .556: Dmx= 1.373]
13420> #
13421> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
13422> #
13423> R0100: C00054-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13424>      ADD HYD                 1.0 02:N6          38743.00  62.067 No_date   59:46   36.11 n/a      .000
13425>                          +   1.0 02:SW_6         165.00    1.511 No_date   33:01   37.57 n/a      .000
13426>                          +   1.0 02:VG_DR       1332.00   10.882 No_date   35:10   42.49 n/a      .000
13427>                      SUM=    1.0 01:S_N6        40240.01  62.114 No_date   59:39   36.33 n/a      .000
13428> #
13429> # Sum of hydrographs from Node 6 routed to Node 5
13430> # Section 6
13431> #
13432> R0100: C00055-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13433>      ROUTE CHANNEL     ->    1.0 02:S_N6        40240.01  62.114 No_date   59:39   36.33 n/a      .000
13434>        [RDT= 1.00] out <-    1.0 01:N5          40240.01  61.991 No_date   60:21   36.33 n/a      .000
13435>        [L/S/n= 1852./ .054/ .035]
13436>        [Vmx=  .494: Dmx= 1.468]
13437> #
13438> # Addition of Subwatershed 5 and Flowing Creek to Node 5
13439> #
13440> R0100: C00056-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13441>      ADD HYD                 1.0 02:N5          40240.01  61.991 No_date   60:21   36.33 n/a      .000
13442>                          +   1.0 02:SW_5         224.00    9.576 No_date   28:44   47.62 n/a      .000
13443>                          +   1.0 02:FL_CK       4945.00   52.056 No_date   33:16   44.17 n/a      .000
13444>                      SUM=    1.0 01:S_N5        45409.01  80.898 No_date   34:11   37.24 n/a      .000
13445> #
13446> # Sum of hydrographs from Node 5 routed to Node 5A
13447> # Section 7
13448> #
13449> R0100: C00057-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13450>      ROUTE CHANNEL     ->    1.0 02:S_N5        45409.01  80.898 No_date   34:11   37.24 n/a      .000
13451>        [RDT= 1.00] out <-    1.0 01:N5A         45409.01  80.666 No_date   34:28   37.24 n/a      .000
13452>        [L/S/n=  556./ .090/ .040]
13453>        [Vmx=  .546: Dmx= 1.353]
13454> #
13455> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
13456> #
13457> R0100: C00058-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13458>      ADD HYD                 1.0 02:N5A         45409.01  80.666 No_date   34:28   37.24 n/a      .000
13459>                          +   1.0 02:SW_5A2       20.00    1.097 No_date   28:35   52.06 n/a      .000
13460>                          +   1.0 02:SW_5A1      1412.00   10.184 No_date   37:44   45.88 n/a      .000
13461>                      SUM=    1.0 01:S_N5A       46841.01  89.756 No_date   34:38   37.51 n/a      .000
13462> #
13463> # Sum of hydrographs from Node 5A routed to Node 4
13464> # Section 8
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13465> #
13466> R0100: C00059-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13467>       ROUTE CHANNEL    ->      1. 0 02: S_NSA       46841. 01    89. 756 No_date    34:38    37. 51   n/a      .000
13468>       [RDT= 1. 00] out <-      1. 0 01: N4          46841. 01    85. 943 No_date    36:10    37. 51   n/a      .000
13469>       [L/ S/ n= 4630. /  . 043/ . 035]
13470>       [Vmx=   . 904: Dmx=< 3. 866]
13471> #
13472> # Addition of Subwatershed 4 and Leamy Creek to Node 4
13473> #
13474> R0100: C00060-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13475>       ADD HYD                  1. 0 02: N4          46841. 01    85. 943 No_date    36:10    37. 51   n/a      .000
13476>                           +    1. 0 02: SW_4          585. 00    14. 953 No_date    29:55    52. 06   n/a      .000
13477>                           +    1. 0 02: LM_CK        1021. 00    19. 782 No_date    30:45    51. 16   n/a      .000
13478>                         SUM=   1. 0 01: S_N4        48447. 00    96. 618 No_date    35:12    37. 97   n/a      .000
13479> R0100: C00061-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13480>       SAVE HYD                 1. 0 01: S_N4        48447. 00    96. 618 No_date    35:12    37. 97   n/a      .000
13481>       fname : S_N4. 0100
13482>       remark: flow at S_N4
13483> #
13484> # Sum of hydrographs from Node 4 routed to Node 2
13485> # Section 9
13486> #
13487> R0100: C00062-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13488>       ROUTE CHANNEL    ->      1. 0 02: S_N4        48447. 00    96. 618 No_date    35:12    37. 97   n/a      .000
13489>       [RDT= 1. 00] out <-      1. 0 01: N2          48447. 00    96. 322 No_date    35:13    37. 97   n/a      .000
13490>       [L/ S/ n= 1667. /  . 060/ . 040]
13491>       [Vmx=   . 944: Dmx=< 3. 929]
13492> #
13493> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
13494> #
13495> R0100: C00063-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13496>       ADD HYD                  1. 0 02: N2          48447. 00    96. 322 No_date    35:13    37. 97   n/a      .000
13497>                           +    1. 0 02: SW_2          177. 00     7. 567 No_date    28:44    47. 62   n/a      .000
13498>                           +    1. 0 02: SM_DR        1122. 00    17. 981 No_date    31:42    52. 06   n/a      .000
13499>                           +    1. 0 02: MO_DR        2737. 00    40. 730 No_date    31:28    46. 75   n/a      .000
13500>                         SUM=   1. 0 01: S_N2        52483. 00   143. 580 No_date    32:59    38. 76   n/a      .000
13501> R0100: C00064-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13502>       SAVE HYD                 1. 0 01: S_N2        52483. 00   143. 580 No_date    32:59    38. 76   n/a      .000
13503>       fname : H_SN2
13504>       remark: flow at S_N2 Jock River Gauge at Moodie Dr.
13505> #
13506> # Sum of hydrographs from Node 2 routed to Node 1
13507> # Section 10
13508> #
13509> #*******************************************************************************
13510> #
13511> # Hydrograph from Node 2 routed to Node 416
13512> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
13513> #
13514> R0100: C00065-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13515>       ROUTE CHANNEL    ->      1. 0 02: S_N2        52483. 00   143. 580 No_date    32:59    38. 76   n/a      .000
13516>       [RDT= 1. 00] out <-      1. 0 01: N_416       52483. 00   139. 298 No_date    33:45    38. 76   n/a      .000
13517>       [L/ S/ n= 2327. /  . 050/ . 055]
13518>       [Vmx=   . 801: Dmx=< 3. 814]
13519> #*******************************************************************************
13520> #     Catchment SW1a
13521> #     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
13522> #     - Undeveloped agricultural land
13523> #*******************************************************************************
13524> R0100: C00066-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13525>       CONTINUOUS NASHYD        1. 0 01: SW_1a         536. 42     7. 274 No_date    31:14    40. 95   .462     .000
13526>       [CN= 72. 0: N= 3. 00: Tp=  2. 79]
13527>       [IaREC= 4. 00: SM N=  39. 75: SMX=264. 99:  SK=  . 010]
13528>       [InterEventTime=  12. 00]
13529> R0100: C00067-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13530>       CONTINUOUS NASHYD        1. 0 01: S_l-Okeefe     44. 93     1. 446 No_date    29:06    45. 95   .519     .000
13531>       [CN= 77. 0: N= 3. 00: Tp=  1. 05]
13532>       [IaREC= 4. 00: SM N=  31. 15: SMX=207. 66:  SK=  . 010]
13533>       [InterEventTime=  12. 00]
13534> R0100: C00068-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13535>       ADD HYD                  1. 0 02: N_416       52483. 00   139. 298 No_date    33:45    38. 76   n/a      .000
13536>                           +    1. 0 02: SW_1a         536. 42     7. 274 No_date    31:14    40. 95   n/a      .000
13537>                           +    1. 0 02: S_l-Okeefe     44. 93     1. 446 No_date    29:06    45. 95   n/a      .000
13538>                         SUM=   1. 0 01: SN_416      53064. 36   145. 020 No_date    33:31    38. 79   n/a      .000
13539> R0100: C00069-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13540>       SAVE HYD                 1. 0 01: SN_416      53064. 36   145. 020 No_date    33:31    38. 79   n/a      .000
13541>       fname : SN_416. 0100
13542>       remark: Total Flows at Highway 416
13543> #
13544> # Hydrograph from Node 416 routed to Node at Okeefe drain
13545> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
13546> #
13547> R0100: C00070-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13548>       ROUTE CHANNEL    ->      1. 0 02: SN_416      53064. 36   145. 020 No_date    33:31    38. 79   n/a      .000
13549>       [RDT= 1. 00] out <-      1. 0 01: N_OK        53064. 36   144. 944 No_date    33:32    38. 79   n/a      .000
13550>       [L/ S/ n=  497. /  . 302/ . 055]
13551>       [Vmx=< 1. 728: Dmx=< 3. 267]
13552> #*******************************************************************************
13553> #     Catchment OKEEFE
13554> #     - To O'Keefe drain (north of the Jock)
13555> #     - Developed with assumed 43% imp.
13556> #     - 2020-10-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
13557> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
13558> #*******************************************************************************
13559> R0100: C00071-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13560>       CONTINUOUS NASHYD        1. 0 01: O 1          63. 72     1. 380 No_date    28:58    30. 74   .347     .000
13561>       [CN= 61. 0: N= 3. 00: Tp=  . 90]
13562>       [IaREC= 4. 00: SM N=  64. 50: SMX=430. 01:  SK=  . 010]
13563>       [InterEventTime=  12. 00]
13564> R0100: C00072-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13565>       ROUTE CHANNEL    ->      1. 0 02: O 1R         63. 72     1. 380 No_date    28:58    30. 74   n/a      .000
13566>       [RDT= 1. 00] out <-      1. 0 01: O 1R         63. 72     1. 307 No_date    29:13    30. 74   n/a      .000
13567>       [L/ S/ n=  960. /  . 630/ . 043]
13568>       [Vmx=<  . 926: Dmx=<  . 493]
13569> R0100: C00073-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13570>       CONTINUOUS NASHYD        1. 0 01: O 2          28. 61      . 485 No_date    29:13    28. 38   .320     .000
13571>       [CN= 57. 0: N= 3. 00: Tp=  1. 10]
13572>       [IaREC= 4. 00: SM N=  76. 32: SMX=508. 81:  SK=  . 010]
13573>       [InterEventTime=  12. 00]
13574> R0100: C00074-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13575>       CONTINUOUS NASHYD        1. 0 01: O 4          46. 94      . 650 No_date    28:59    21. 79   .246     .000
13576>       [CN= 49. 0: N= 3. 00: Tp=  . 90]
13577>       [IaREC= 4. 00: SM N=  104. 59: SMX=697. 25:  SK=  . 010]
13578>       [InterEventTime=  12. 00]
13579> R0100: C00075-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13580>       ADD HYD                  1. 0 02: O 1R         63. 72     1. 307 No_date    29:13    30. 74   n/a      .000
13581>                           +    1. 0 02: O 2          28. 61      . 485 No_date    29:13    28. 38   n/a      .000
13582>                           +    1. 0 02: O 4          46. 94      . 650 No_date    28:59    21. 79   n/a      .000
13583>                         SUM=   1. 0 01: OKF-N       139. 27     2. 427 No_date    29:10    27. 24   n/a      .000
13584> R0100: C00076-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13585>       ROUTE CHANNEL    ->      1. 0 02: OKF-N       139. 27     2. 427 No_date    29:10    27. 24   n/a      .000
13586>       [RDT= 1. 00] out <-      1. 0 01: OKF-NR      139. 27     2. 423 No_date    29:12    27. 24   n/a      .000
13587>       [L/ S/ n=  210. /  . 810/ . 043]
13588>       [Vmx=< 1. 130: Dmx=<  . 796]
13589> R0100: C00077-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13590>       CONTINUOUS NASHYD        1. 0 01: O 6          16. 46      . 220 No_date    28:45    18. 67   .211     .000
13591>       [CN= 43. 0: N= 3. 00: Tp=  . 70]
13592>       [IaREC= 4. 00: SM N=  134. 47: SMX=896. 47:  SK=  . 010]
13593>       [InterEventTime=  12. 00]
13594> R0100: C00078-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13595>       CONTINUOUS STANDHYD      1. 0 01: O 3          39. 67     1. 454 No_date    28:21    32. 90   .371     .000
13596>       [XI M=<. 15: TIMP=<. 30]
13597>       [LOSS= 2 : CN=< 50. 0]
13598>       [Pervious      area: IAper= 4. 67: SLPP=<. 32: LGP=< 440. : MNP=<. 035: SCP=<  . 0]
13599>       [Impervious    area: IAimp=< 1. 57: SLPI=<. 32: LGI=<1880. : MNI=<. 013: SCI=<  . 0]
13600>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13601>       [SM N=< 99. 77: SMX=<665. 12:  SK=<  . 010]
13602> R0100: C00079-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13603>       CONTINUOUS STANDHYD      1. 0 01: O 5          60. 63     3. 669 No_date    28:10    38. 00   .429     .000
13604>       [XI M=<. 13: TIMP=<. 26]
13605>       [LOSS= 2 : CN=< 61. 0]
13606>       [Pervious      area: IAper= 4. 67: SLPP=<1. 38: LGP=< 550. : MNP=<. 035: SCP=<  . 0]
13607>       [Impervious    area: IAimp=< 1. 57: SLPI=<1. 38: LGI=<1450. : MNI=<. 013: SCI=<  . 0]
13608>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13609>       [SM N=< 64. 50: SMX=<430. 01:  SK=<  . 010]
13610> R0100: C00080-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13611>       ADD HYD                  1. 0 02: OKF-NR      139. 27     2. 423 No_date    29:12    27. 24   n/a      .000
13612>                           +    1. 0 02: O 3          39. 67     1. 454 No_date    28:21    32. 90   n/a      .000
13613>                           +    1. 0 02: O 5          60. 63     3. 669 No_date    28:10    38. 00   n/a      .000
13614>                           +    1. 0 02: O 6          16. 46      . 220 No_date    28:45    18. 67   n/a      .000
13615>                         SUM=   1. 0 01: PT1         256. 03     5. 938 No_date    28:19    30. 11   n/a      .000
13616> R0100: C00081-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13617>       CONTINUOUS NASHYD        1. 0 01: O 7           5. 28      . 117 No_date    28:37    25. 16   .284     .000
13618>       [CN= 54. 0: N= 3. 00: Tp=  . 60]
13619>       [IaREC= 4. 00: SM N=  87. 01: SMX=580. 07:  SK=  . 010]
13620>       [InterEventTime=  12. 00]
13621> R0100: C00082-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13622>       ADD HYD                  1. 0 02: PT1         256. 03     5. 938 No_date    28:19    30. 11   n/a      .000
13623>                           +    1. 0 02: O 7           5. 28      . 117 No_date    28:37    25. 16   n/a      .000
13624>                         SUM=   1. 0 01: FF          261. 31     6. 036 No_date    28:19    30. 01   n/a      .000
13625> R0100: C00083-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13626>       ROUTE CHANNEL    ->      1. 0 02: FF          261. 31     6. 036 No_date    28:19    30. 01   n/a      .000
13627>       [RDT= 1. 00] out <-      1. 0 01: DRAI N1     261. 31     5. 843 No_date    28:23    30. 01   n/a      .000
13628>       [L/ S/ n=  302. / 1. 000/ . 043]
13629>       [Vmx=<  . 853: Dmx=<  . 797]
13630> R0100: C00084-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13631>       CONTINUOUS NASHYD        1. 0 01: DI          1. 17      . 110 No_date    28:12    50. 22   .567     .000
13632>       [CN= 84. 0: N= 3. 00: Tp=  . 28]
13633>       [IaREC= 4. 00: SM N=  21. 09: SMX=140. 62:  SK=  . 010]
13634>       [InterEventTime=  12. 00]
13635> R0100: C00085-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13636>       CONTINUOUS STANDHYD      1. 0 01: AI          2. 50      . 572 No_date    28:01    70. 42   .795     .000
13637>       [XI M=<. 68: TIMP=<. 85]
13638>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13639>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : MNP=<. 250: SCP=<  . 0]
13640>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=< 224. : MNI=<. 013: SCI=<  . 0]
13641>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13642> R0100: C00086-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13643>       ROUTE RESERVOIR  ->      1. 0 02: AI          2. 50      . 572 No_date    28:01    70. 42   n/a      .000
13644>                         out <=   1. 0 01: AI-STR      2. 50      . 173 No_date    28:17    70. 42   n/a      .000
13645>                       overflow <=  1. 0 03: AI-OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13646>       [MxStOked= 7765E-01   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13647> R0100: C00087-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13648>       CONTINUOUS STANDHYD      1. 0 01: ST- 2          .59      . 115 No_date    28:00    55. 78   .630     .000
13649>       [XI M=<. 46: TIMP=<. 57]
13650>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13651>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : MNP=<. 250: SCP=<  . 0]
13652>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=<  109. : MNI=<. 013: SCI=<  . 0]
13653>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13654> R0100: C00088-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13655>       ROUTE RESERVOIR  ->      1. 0 02: ST- 2          .59      . 115 No_date    28:00    55. 78   n/a      .000
13656>                         out <=   1. 0 01: ST2STR       .59      . 053 No_date    28:13    55. 78   n/a      .000
13657>                       overflow <=  1. 0 03: ST2OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13658>       [MxStOked= 5215E-02   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13659> R0100: C00089-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13660>       CONTINUOUS NASHYD        1. 0 01: O 8          60. 55     1. 639 No_date    29:04    38. 99   .440     .000
13661>       [CN= 69. 0: N= 3. 00: Tp=  1. 00]
13662>       [IaREC= 4. 00: SM N=  44. 82: SMX=298. 82:  SK=  . 010]
13663>       [InterEventTime=  12. 00]
13664> R0100: C00090-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13665>       ROUTE PIPE       ->      1. 0 02: O 8          60. 55     1. 639 No_date    29:04    38. 99   n/a      .000
13666>       [RDT= 1. 00] out <-      1. 0 01: OKPI PE      60. 55     1. 631 No_date    29:07    38. 99   n/a      .000
13667>       [L/ S/ n=  335. /  . 100/ . 013]
13668>       [Vmx=< 1. 305: Dmx=<  . 697]
13669>       [HDTH= 1. 20: WDTH= 1. 80]
13670> R0100: C00091-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13671>       ADD HYD                  1. 0 02: DRAI N1     261. 31     5. 843 No_date    28:23    30. 01   n/a      .000
13672>                           +    1. 0 02: DI            1. 17      . 110 No_date    28:12    50. 22   n/a      .000
13673>                           +    1. 0 02: AI - STR      2. 50      . 173 No_date    28:17    70. 42   n/a      .000
13674>                           +    1. 0 02: AI - OVF       .00      . 000 No_date     0:00      .00   n/a      .000
13675>                           +    1. 0 02: ST2STR         .59      . 053 No_date    28:13    55. 78   n/a      .000
13676>                           +    1. 0 02: ST2OVF         .00      . 000 No_date     0:00      .00   n/a      .000
13677>                           +    1. 0 02: O6P1 PE      60. 55     1. 631 No_date    29:07    38. 99   n/a      .000
13678>                         SUM=   1. 0 01: ST2- 1 N     326. 12     7. 203 No_date    28:33    32. 11   n/a      .000
13679> R0100: C00092-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13680>       CONTINUOUS STANDHYD      1. 0 01: A7           3. 51      . 784 No_date    28:01    70. 42   .795     .000
13681>       [XI M=<. 68: TIMP=<. 85]
13682>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13683>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : LGP=<  50. : MNP=<. 250: SCP=<  . 0]
13684>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=< 265. : MNI=<. 013: SCI=<  . 0]
13685>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13686> R0100: C00093-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13687>       ROUTE RESERVOIR  ->      1. 0 02: A7           3. 51      . 784 No_date    28:01    70. 42   n/a      .000
13688>                         out <=   1. 0 01: A7- STR      3. 51      . 240 No_date    28:18    70. 42   n/a      .000
13689>                       overflow <=  1. 0 03: A7- OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13690>       [MxStOked= 1088E+00   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13691> R0100: C00094-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13692>       CONTINUOUS STANDHYD      1. 0 01: ST- 3          .71      . 138 No_date    28:00    55. 78   .630     .000
13693>       [XI M=<. 46: TIMP=<. 57]
13694>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13695>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : LGP=<  50. : MNP=<. 250: SCP=<  . 0]
13696>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=< 119. : MNI=<. 013: SCI=<  . 0]
13697>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13698> R0100: C00095-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13699>       ROUTE RESERVOIR  ->      1. 0 02: ST- 3          .71      . 138 No_date    28:00    55. 78   n/a      .000
13700>                         out <=   1. 0 01: ST3STR       .71      . 064 No_date    28:13    55. 78   n/a      .000
13701>                       overflow <=  1. 0 03: ST3OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13702>       [MxStOked= 6043E-02   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13703> R0100: C00096-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13704>       ADD HYD                  1. 0 02: ST2- 1 N    326. 12     7. 203 No_date    28:33    32. 11   n/a      .000
13705>                           +    1. 0 02: A7- STR       3. 51      . 240 No_date    28:18    70. 42   n/a      .000
13706>                           +    1. 0 02: A7- OVF        .00      . 000 No_date     0:00      .00   n/a      .000
13707>                           +    1. 0 02: ST3STR         .71      . 064 No_date    28:13    55. 78   n/a      .000
13708>                           +    1. 0 02: ST3OVF         .00      . 000 No_date     0:00      .00   n/a      .000
13709>                         SUM=   1. 0 01: PT2ST3      330. 34     7. 487 No_date    28:31    32. 57   n/a      .000
13710> R0100: C00097-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13711>       ROUTE CHANNEL    ->      1. 0 02: PT2ST3      330. 34     7. 487 No_date    28:31    32. 57   n/a      .000
13712>       [RDT= 1. 00] out <-      1. 0 01: DRAI N2     330. 34     6. 868 No_date    28:55    32. 57   n/a      .000
13713>       [L/ S/ n=  592. /  . 230/ . 043]
13714>       [Vmx=<  . 611: Dmx=<  1. 215]
13715> R0100: C00098-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13716>       CONTINUOUS NASHYD        1. 0 01: D2           2. 28      . 087 No_date    29:02    50. 22   .567     .000
13717>       [CN= 84. 0: N= 3. 00: Tp=  . 99]
13718>       [IaREC= 4. 00: SM N=  21. 09: SMX=140. 62:  SK=  . 010]
13719>       [InterEventTime=  12. 00]
13720> R0100: C00099-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13721>       CONTINUOUS STANDHYD      1. 0 01: A17          12. 04     2. 382 No_date    28:03    70. 42   .795     .000
13722>       [XI M=<. 68: TIMP=<. 85]
13723>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13724>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : LGP=<  50. : MNP=<. 250: SCP=<  . 0]
13725>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=< 491. : MNI=<. 013: SCI=<  . 0]
13726>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13727> R0100: C00100-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13728>       ROUTE RESERVOIR  ->      1. 0 02: A17          12. 04     2. 382 No_date    28:03    70. 42   n/a      .000
13729>                         out <=   1. 0 01: A17STR      12. 04      . 801 No_date    28:24    70. 42   n/a      .000
13730>                       overflow <=  1. 0 03: A17OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13731>       [MxStOked= 3671E+00   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13732> R0100: C00101-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13733>       CONTINUOUS STANDHYD      1. 0 01: ST- 4          .35      . 069 No_date    28:00    55. 78   .630     .000
13734>       [XI M=<. 46: TIMP=<. 57]
13735>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13736>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : LGP=<  50. : MNP=<. 250: SCP=<  . 0]
13737>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=<  84. : MNI=<. 013: SCI=<  . 0]
13738>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13739> R0100: C00102-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13740>       ROUTE RESERVOIR  ->      1. 0 02: ST- 4          .35      . 069 No_date    28:00    55. 78   n/a      .000
13741>                         out <=   1. 0 01: ST4STR       .35      . 032 No_date    28:13    55. 78   n/a      .000
13742>                       overflow <=  1. 0 03: ST4OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13743>       [MxStOked= 3372E-02   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13744> R0100: C00103-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13745>       CONTINUOUS STANDHYD      1. 0 01: A18          5. 30     1. 139 No_date    28:01    70. 42   .795     .000
13746>       [XI M=<. 68: TIMP=<. 85]
13747>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13748>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : LGP=<  50. : MNP=<. 250: SCP=<  . 0]
13749>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=< 326. : MNI=<. 013: SCI=<  . 0]
13750>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13751> R0100: C00104-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13752>       ROUTE RESERVOIR  ->      1. 0 02: A18          5. 30     1. 139 No_date    28:01    70. 42   n/a      .000
13753>                         out <=   1. 0 01: A18STR      5. 30      . 360 No_date    28:20    70. 42   n/a      .000
13754>                       overflow <=  1. 0 03: A18OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13755>       [MxStOked= 1636E+00   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13756> R0100: C00105-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13757>       ADD HYD                  1. 0 02: DRAI N2     330. 34     6. 868 No_date    28:55    32. 57   n/a      .000
13758>                           +    1. 0 02: D2           2. 28      . 087 No_date    29:02    50. 22   n/a      .000
13759>                           +    1. 0 02: AI7STR      12. 04      . 801 No_date    28:24    70. 42   n/a      .000
13760>                           +    1. 0 02: AI7OVF       .00      . 000 No_date     0:00      .00   n/a      .000
13761>                           +    1. 0 02: ST4STR         .35      . 032 No_date    28:13    55. 78   n/a      .000
13762>                           +    1. 0 02: ST4OVF         .00      . 000 No_date     0:00      .00   n/a      .000
13763>                           +    1. 0 02: AI8STR        5. 30     . 360 No_date    28:20    70. 42   n/a      .000
13764>                           +    1. 0 02: AI8OVF         .00      . 000 No_date     0:00      .00   n/a      .000
13765>                         SUM=   1. 0 01: PT3ST4      350. 31     7. 785 No_date    28:52    34. 58   n/a      .000
13766> R0100: C00106-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13767>       ROUTE CHANNEL    ->      1. 0 02: PT3ST4      350. 31     7. 785 No_date    28:52    34. 58   n/a      .000
13768>       [RDT= 1. 00] out <-      1. 0 01: DRAI N3     350. 31     7. 474 No_date    29:08    34. 58   n/a      .000
13769>       [L/ S/ n=  525. /  . 230/ . 043]
13770>       [Vmx=<  . 628: Dmx=< 1. 257]
13771> R0100: C00107-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13772>       CONTINUOUS NASHYD        1. 0 01: D3           2. 51      . 132 No_date    28:43    54. 04   .610     .000
13773>       [CN= 86. 0: N= 3. 00: Tp=  . 73]
13774>       [IaREC= 4. 00: SM N=  17. 43: SMX=116. 21:  SK=  . 010]
13775>       [InterEventTime=  12. 00]
13776> R0100: C00108-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13777>       CONTINUOUS STANDHYD      1. 0 01: C1           3. 41      . 763 No_date    28:01    70. 42   .795     .000
13778>       [XI M=<. 68: TIMP=<. 85]
13779>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13780>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : LGP=<  50. : MNP=<. 250: SCP=<  . 0]
13781>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=< 261. : MNI=<. 013: SCI=<  . 0]
13782>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13783> R0100: C00109-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13784>       ROUTE RESERVOIR  ->      1. 0 02: C1           3. 41      . 763 No_date    28:01    70. 42   n/a      .000
13785>                         out <=   1. 0 01: C1- STR      3. 41      . 232 No_date    28:18    70. 42   n/a      .000
13786>                       overflow <=  1. 0 03: C1- OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13787>       [MxStOked= 1056E+00   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13788> R0100: C00110-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13789>       CONTINUOUS STANDHYD      1. 0 01: ST- 5          .45      . 088 No_date    28:00    55. 78   .630     .000
13790>       [XI M=<. 46: TIMP=<. 57]
13791>       [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   F=  .00]
13792>       [Pervious      area: IAper= 4. 67: SLPP=<  50. : LGP=<  50. : MNP=<. 250: SCP=<  . 0]
13793>       [Impervious    area: IAimp=< 1. 57: SLPI=<  50. : LGI=<  95. : MNI=<. 013: SCI=<  . 0]
13794>       [IaREC) mp=  4. 00: IaRECper=  4. 00]
13795> R0100: C00111-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13796>       ROUTE RESERVOIR  ->      1. 0 02: ST- 5          .45      . 088 No_date    28:00    55. 78   n/a      .000
13797>                         out <=   1. 0 01: ST5STR       .45      . 041 No_date    28:13    55. 78   n/a      .000
13798>                       overflow <=  1. 0 03: ST5OVF      .00      . 000 No_date     0:00      .00   n/a      .000
13799>       [MxStOked= 4111E-02   m3,  Tot Ovf Vol= 0. 0000E+00   m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13800> R0100: C00112-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh:mm----RVmm R. C.---DWFcms
13801>       ADD HYD                  1. 0 02: DRAI N3     350. 31     7. 474 No_date    29:08    34. 58   n/a      .000
13802>                           +    1. 0 02: D3           2. 51      . 132 No_date    28:43    54. 04   n/a      .000
13803>                           +    1. 0 02: C1-
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13839>       remark: SMWF- A Inflow
13840> R0100: C00119-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13841>       ADD HYD                1.0  02: SSAOUT        364.27       7.924 No_date    28:08    67.64  n/a     .000
13842>                        out <=    1.0  01: SWMF- A    66.75       1.357 No_date    29:10    67.64  n/a     .000
13843>                   overflow <=    1.0  03: SWMOVF      .00        .000 No_date    0:00      .00  n/a     .000
13844>       [MtStolked=.3051E+01  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13845> R0100: C00120-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13846>       SAVE HYD               1.0  01: SWMF- A    66.75       1.357 No_date    29:10    67.64  n/a     .000
13847>        fname: SWMF- A 0100
13848>        remark: SWMF- A Outflow
13849> R0100: C00121-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13850>       ADD HYD                1.0  02: SSAOUT        364.27       7.924 No_date    29:06    35.79  n/a     .000
13851>                              +    1.0  02: SWMF- A    66.75       1.357 No_date    29:10    67.64  n/a     .000
13852>                              +    1.0  02: SWMOVF       .00        .000 No_date    0:00      .00  n/a     .000
13853>                         STOR=     1.0  01: PT4STS    431.02       9.279 No_date    29:07    40.72  n/a     .000
13854> R0100: C00122-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13855>       CONTINUOUS STANDHYD    1.0  01: C6            1.87        .433 No_date    28:01    70.42  .795    .000
13856>        [XI MP=.68: TI MP=.85]
13857>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  .00]
13858>        [Pervious      area: IAper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=    .0]
13859>        [Impervious    area: IAimp= 1. 57: SLPI=  .50: LGI= 193. : MNI=. 013: SCI=    .0]
13860>        [IaRECmp=    4. 00: IaRECper=    4. 00]
13861> R0100: C00123-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13862>       ADD HYD                1.0  02: C6            1.87        .433 No_date    28:01    70.42  n/a     .000
13863>                        out <=    1.0  01: C6- STR     1.87        .129 No_date    28:16    70.42  n/a     .000
13864>                   overflow <=    1.0  03: C6- OVF      .00        .000 No_date    0:00      .00  n/a     .000
13865>       [MtStolked=. 5845E- 01  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13866> R0100: C00124-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13867>       CONTINUOUS STANDHYD    1.0  01: C7            1.62        .381 No_date    28:00    70.42  .795    .000
13868>        [XI MP=. 68: TI MP=. 85]
13869>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  .00]
13870>        [Pervious      area: IAper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=    .0]
13871>        [Impervious    area: IAimp= 1. 57: SLPI=  .50: LGI= 180. : MNI=. 013: SCI=    .0]
13872>        [IaRECmp=    4. 00: IaRECper=    4. 00]
13873> R0100: C00125-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13874>       ADD HYD                1.0  02: C7            1.62        .381 No_date    28:00    70.42  n/a     .000
13875>                        out <=    1.0  01: C7- STR     1.62        .112 No_date    28:16    70.42  n/a     .000
13876>                   overflow <=    1.0  03: C7- OVF      .00        .000 No_date    0:00      .00  n/a     .000
13877>       [MtStolked=. 1503E- 01  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13878> R0100: C00126-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13879>       CONTINUOUS STANDHYD    1.0  01: ST- 6          .41        .081 No_date    28:00    55.78  .630    .000
13880>        [XI MP=. 46: TI MP=. 57]
13881>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  .00]
13882>        [Pervious      area: IAper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=    .0]
13883>        [Impervious    area: IAimp= 1. 57: SLPI=  .50: LGI=  91. : MNI=. 013: SCI=    .0]
13884>        [IaRECmp=    4. 00: IaRECper=    4. 00]
13885> R0100: C00127-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13886>       ADD HYD                1.0  02: ST- 6          .41        .081 No_date    28:00    55.78  n/a     .000
13887>                        out <=    1.0  01: ST6STR      .41        .037 No_date    28:13    55.78  n/a     .000
13888>                   overflow <=    1.0  03: ST6OVF      .00        .000 No_date    0:00      .00  n/a     .000
13889>       [MtStolked=. 3877E- 02  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13890> R0100: C00128-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13891>       ADD HYD                1.0  02: PT4STS        431.02       9.279 No_date    29:07    40.72  n/a     .000
13892>                              +    1.0  02: C6- STR      1.87        .129 No_date    28:16    70.42  n/a     .000
13893>                              +    1.0  02: C6- OVF       .00        .000 No_date    0:00      .00  n/a     .000
13894>                              +    1.0  02: C7- STR      1.62        .112 No_date    28:16    70.42  n/a     .000
13895>                              +    1.0  02: C7- OVF       .00        .000 No_date    0:00      .00  n/a     .000
13896>                              +    1.0  02: ST6STR        .41        .037 No_date    28:13    55.78  n/a     .000
13897>                              +    1.0  02: ST6OVF        .00        .000 No_date    0:00      .00  n/a     .000
13898>                         SUM=      1.0  01: PT5STS      434.92       9.426 No_date    29:06    40.97  n/a     .000
13899> R0100: C00129-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13900>       ROUTE CHANNEL      ->    1.0  02: PT5STS      434.92       9.426 No_date    29:06    40.97  n/a     .000
13901>        [RDT=  1. 00]  out <-    1.0  01: DRAIN4     434.92       9.061 No_date    29:16    40.97  n/a     .000
13902>        [L/ S/ n=   324. /  .100/ .043]
13903>        [Vmx=    .507: Dmx=  1. 619]
13904> R0100: C00130-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13905>       CONTINUOUS NASHYD      1.0  01: D4            1.73        .112 No_date    28:33    57.07  .644    .000
13906>        [CN=  88. 0: N=  3. 00: Tp=   .60]
13907>        [IaREC=  4. 00: SM N=  14. 94: SMX=  99. 61: SK=  .010]
13908>        [InterEventTime=  12. 00]
13909> R0100: C00131-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13910>       CONTINUOUS STANDHYD    1.0  01: Area- B       24. 04       4. 871 No_date    28:02    66. 17  .747    .000
13911>        [XI MP=. 62: TI MP=. 77]
13912>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  .00]
13913>        [Pervious      area: IAper= 4. 67: SLPP=1. 40: LGP=  50. : MNP=. 250: SCP=    .0]
13914>        [Impervious    area: IAimp= 1. 57: SLPI=1. 40: LGI= 693. : MNI=. 013: SCI=    .0]
13915>        [IaRECmp=    4. 00: IaRECper=    4. 00]
13916> R0100: C00132-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13917>       ROUTE RESERVOIR    ->    1.0  02: Area- B       24. 04       4. 871 No_date    28:02    66. 17  n/a     .000
13918>                        out <=    1.0  01: SWMF- B    24. 04       .641 No_date    28:41    66. 17  n/a     .000
13919>                   overflow <=    1.0  03: SWMBOVF      .00        .000 No_date    0:00      .00  n/a     .000
13920>       [MtStolked=. 9727E+00  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13921> R0100: C00133-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13922>       ADD HYD                1.0  02: DRAIN4        434.92       9.061 No_date    29:16    40.97  n/a     .000
13923>                              +    1.0  02: D4            1.73        .112 No_date    28:33    57.07  n/a     .000
13924>                              +    1.0  02: SWMF- B    24. 04       .641 No_date    28:41    66. 17  n/a     .000
13925>                              +    1.0  02: SWMBOVF       .00        .000 No_date    0:00      .00  n/a     .000
13926>                         SUM=      1.0  01: D4- EX       460. 69      9. 722 No_date    29:15    42. 35  n/a     .000
13927> R0100: C00134-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13928>       ROUTE CHANNEL      ->    1.0  02: D4- EX       460. 69      9. 722 No_date    29:15    42. 35  n/a     .000
13929>        [RDT=  1. 00]  out <-    1.0  01: DRAIN5     460. 69      9. 564 No_date    29:26    42. 35  n/a     .000
13930>        [L/ S/ n=   413. /  .160/ .033]
13931>        [Vmx=    .703: Dmx=  1. 106]
13932> R0100: C00135-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13933>       CONTINUOUS NASHYD      1.0  01: D5            1.90        .104 No_date    28:40    54. 04  .610    .000
13934>        [CN=  86. 0: N=  3. 00: Tp=   .69]
13935>        [IaREC=  4. 00: SM N=  17. 43: SMX=  116. 21: SK=  .010]
13936>        [InterEventTime=  12. 00]
13937> R0100: C00136-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13938>       CONTINUOUS NASHYD      1.0  01: O 13SDF       9. 74        .675 No_date    28:21    50. 83  .574    .000
13939>        [CN=  81. 0: N=  3. 00: Tp=   .43]
13940>        [IaREC=  4. 00: SM N=  25. 21: SMX=  168. 09: SK=  .010]
13941>        [InterEventTime=  12. 00]
13942> R0100: C00137-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13943>       ROUTE RESERVOIR    ->    1.0  02: O 13SDF       9. 74        .675 No_date    28:21    50. 83  n/a     .000
13944>                        out <=    1.0  01: SDF         9. 74        .070 No_date    30:50    50. 83  n/a     .000
13945>                   overflow <=    1.0  03: OVFSDF       .00        .000 No_date    0:00      .00  n/a     .000
13946>       [MtStolked=. 2813E+00  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
13947> R0100: C00138-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13948>       ADD HYD                1.0  02: DRAIN5        460. 69      9. 564 No_date    29:26    42. 35  n/a     .000
13949>                              +    1.0  02: D5            1.90        .104 No_date    28:40    54. 04  n/a     .000
13950>                              +    1.0  02: SDF           9. 74        .070 No_date    30:50    50. 83  n/a     .000
13951>                         SUM=      1.0  01: PT6MC       472. 33      9. 694 No_date    29:26    42. 57  n/a     .000
13952> R0100: C00139-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13953>       CONTINUOUS NASHYD      1.0  01: O 15          10. 67        .940 No_date    28:13    49. 72  .561    .000
13954>        [CN=  82. 0: N=  3. 00: Tp=   .30]
13955>        [IaREC=  4. 00: SM N=  23. 09: SMX=  153. 94: SK=  .010]
13956>        [InterEventTime=  12. 00]
13957> R0100: C00140-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13958>       ADD HYD                1.0  02: PT6MC       472. 33      9. 694 No_date    29:26    42. 57  n/a     .000
13959>                              +    1.0  02: O 15          10. 67        .940 No_date    28:13    49. 72  n/a     .000
13960>                         SUM=      1.0  01: M C         483. 00      9. 844 No_date    29:26    42. 73  n/a     .000
13961> R0100: C00141-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13962>       ROUTE CHANNEL      ->    1.0  02: M C         483. 00      9. 844 No_date    29:26    42. 73  n/a     .000
13963>        [RDT=  1. 00]  out <-    1.0  01: O 14Ch      483. 00      8. 880 No_date    29:52    42. 73  n/a     .000
13964>        [L/ S/ n=   845. /  .100/ .033]
13965>        [Vmx=    .556: Dmx=  1. 861]
13966> R0100: C00142-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13967>       CONTINUOUS NASHYD      1.0  01: O 14          5. 00        .722 No_date    28:04    49. 72  .561    .000
13968>        [CN=  82. 0: N=  3. 00: Tp=   .13]
13969>        [IaREC=  4. 00: SM N=  23. 09: SMX=  153. 94: SK=  .010]
13970>        [InterEventTime=  12. 00]
13971> R0100: C00143-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13972>       ADD HYD                1.0  02: O 14Ch        483. 00      8. 880 No_date    29:52    42. 80  n/a     .000
13973>                              +    1.0  02: O 14          5. 00        .722 No_date    28:04    49. 72  n/a     .000
13974>                         SUM=      1.0  01: OKEEFE      488. 00      8. 925 No_date    29:52    42. 80  n/a     .000
13975> ********************************************************************************
13976> #     Okeefe Pond
13977> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
13978> #       and a ratio of the catchment area to the West Clarke pond rating curve
13979> #       from the MSS for the next coordinates
13980> ********************************************************************************
13981> R0100: C00144-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13982>       CONTINUOUS NASHYD      1.0  01: S- 1- D2      18. 67        .573 No_date    29:11    45. 95  .519    .000
13983>        [CN=  77. 0: N=  3. 00: Tp=  1. 12]
13984>        [IaREC=  4. 00: SM N=  31. 15: SMX=  207. 66: SK=  .010]
13985>        [InterEventTime=  12. 00]
13986> R0100: C00145-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13987>       CONTINUOUS NASHYD      1.0  01: S- 1- D3       6. 79        .189 No_date    29:23    45. 95  .519    .000
13988>        [CN=  77. 0: N=  3. 00: Tp=  1. 28]
13989>        [IaREC=  4. 00: SM N=  31. 15: SMX=  207. 66: SK=  .010]
13990>        [InterEventTime=  12. 00]
13991> R0100: C00146-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13992>       ADD HYD                1.0  02: N_OK        53064. 36    144. 944 No_date    33:32    38. 79  n/a     .000
13993>                              +    1.0  02: OKEEFE      488. 00      8. 925 No_date    29:52    42. 80  n/a     .000
13994>                              +    1.0  02: S- 1- D2     18. 67        .573 No_date    29:11    45. 95  n/a     .000
13995>                              +    1.0  02: S- 1- D3      6. 79        .189 No_date    29:23    45. 95  n/a     .000
13996>                         SUM=      1.0  01: SN_OK       53577. 82    147. 990 No_date    33:31    38. 83  n/a     .000
13997> R0100: C00147-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
13998>       SAVE HYD               1.0  01: SN_OK       53577. 82    147. 990 No_date    33:31    38. 83  n/a     .000
13999>        fname: SN_OK 0100
14000>        remark: Total Flows at Okeefe Drain
14001> #
14002> # Hydrograph from Node Okeefe routed to Node at Foster Drain
14003> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
14004> #
14005> R0100: C00148-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14006>       ROUTE CHANNEL      ->    1.0  02: SN_OK       53577. 82    147. 990 No_date    33:31    38. 83  n/a     .000
14007>        [RDT=  1. 00]  out <-    1.0  01: N_FO       53577. 82    147. 849 No_date    33:32    38. 83  n/a     .000
14008>        [L/ S/ n=  1183. /  .076/ .035]
14009>        [Vmx=   1. 294: Dmx=  3. 587]
14010> ********************************************************************************
14011> #     Catchment FOSTER
14012> #     - To Foster ditch (north of the Jock)
14013> #     - Partially stripped (medium density); remining agricultural
14014> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
14015> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
14016> #     - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
14017> ********************************************************************************
14018> R0100: C00149-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14019>       CONTINUOUS STANDHYD    1.0  01: FOSTER       325.44      36. 526 No_date    28:10    65. 13  .735    .000
14020>        [XI MP=. 55: TI MP=. 55]
14021>        [LOSS=  2 : CN=  74. 0]
14022>        [Pervious      area: IAper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
14023>        [Impervious    area: IAimp= 1. 57: SLPI=  .50: LGI=1473. : MNI=. 013: SCI=    .0]
14024>        [IaRECmp=    4. 00: IaRECper=    4. 00]
14025>        [SM N=  36. 67: SMX=244. 49: SK=  .010]
14026> ********************************************************************************
14027> #     Foster Pond
14028> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
14029> #       and a ratio of the catchment area to the West Clarke pond rating curve
14030> #       from the MSS for the next coordinates
14031> ********************************************************************************
14032> R0100: C00150-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14033>       ROUTE RESERVOIR    ->    1.0  02: FOSTER       325.44      36. 526 No_date    28:10    65. 13  n/a     .000
14034>                        out <=    1.0  01: P_FOS      325.44       9.091 No_date    29:01    65. 13  n/a     .000
14035>                   overflow <=    1.0  03: FO- OVF       .00        .000 No_date    0:00      .00  n/a     .000
14036>       [MtStolked=. 8792E+01  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
14037> R0100: C00151-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14038>       ADD HYD                1.0  02: P_FOS        325.44       9.091 No_date    29:01    65. 13  n/a     .000
14039>                              +    1.0  02: FO- OVF       .00        .000 No_date    0:00      .00  n/a     .000
14040>                         SUM=      1.0  01: FOSTER- OUT  325.44       9.091 No_date    29:01    65. 13  n/a     .000
14041> ********************************************************************************
14042> R0100: C00152-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14043>       CONTINUOUS STANDHYD    1.0  01: W_CLAR_BRA    73. 29      11. 683 No_date    28:05    70. 23  .793    .000
14044>        [XI MP=. 60: TI MP=. 65]
14045>        [LOSS=  2 : CN=  77. 0]
14046>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14047>        [Impervious    area: IAimp= 1. 57: SLPI=  .50: LGI= 699. : MNI=. 013: SCI=    .0]
14048>        [IaRECmp=    4. 00: IaRECper=    4. 00]
14049>        [SM N=  31. 15: SMX=207. 66: SK=  .010]
14050> R0100: C00153-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14051>       ROUTE RESERVOIR    ->    1.0  02: W_CLAR_BRA    73. 29      11. 683 No_date    28:05    70. 23  n/a     .000
14052>                        out <=    1.0  01: M S_P10     73. 29       1. 240 No_date    29:12    70. 23  n/a     .000
14053>                   overflow <=    1.0  03: P10- OVF       .00        .000 No_date    0:00      .00  n/a     .000
14054>       [MtStolked=. 2223E+01  m3,  Tot Ovf Vol =.0000E+00  m3,  N-Ovf=     0,  Tot Dur Ovf=     0. hrs]
14055> R0100: C00154-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14056>       CONTINUOUS NASHYD      1.0  01: S- 1- FO- D2   4. 94        .154 No_date    29:10    45. 95  .519    .000
14057>        [CN=  77. 0: N=  3. 00: Tp=  1. 10]
14058>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14059>        [InterEventTime=  12. 00]
14060> R0100: C00155-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14061>       ADD HYD                1.0  02: FOSTER- OUT  325.44       9.091 No_date    29:01    65. 13  n/a     .000
14062>                              +    1.0  02: S- 1- FO- D2   4. 94        .154 No_date    29:10    45. 95  n/a     .000
14063>                         SUM=      1.0  01: 980          330. 38      9. 242 No_date    29:01    64. 84  n/a     .000
14064> R0100: C00156-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14065>       SAVE HYD               1.0  01: 980          330. 38      9. 242 No_date    29:01    64. 84  n/a     .000
14066>        fname: 980. 0100
14067>        remark: Total Flows at Station 980 on Foster Drain
14068> #
14069> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
14070> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
14071> #
14072> R0100: C00157-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14073>       ROUTE CHANNEL      ->    1.0  02: 520          330. 38      9. 242 No_date    29:01    64. 84  n/a     .000
14074> *     [RDT=  1. 00]  out <-    1.0  01: 980- out     330. 38      8. 718 No_date    29:20    64. 84  n/a     .000
14075>        [L/ S/ n=   460. /  .043/ .035]
14076>        [Vmx=    .535: Dmx=  1. 674]
14077> R0100: C00158-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14078>       CONTINUOUS NASHYD      1.0  01: S- 1- FO- DI   5. 11        .159 No_date    29:10    45. 95  .519    .000
14079>        [CN=  77. 0: N=  3. 00: Tp=  1. 01]
14080>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14081>        [InterEventTime=  12. 00]
14082> R0100: C00159-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14083>       ADD HYD                1.0  02: 980- out      330. 38      8. 718 No_date    29:20    64. 84  n/a     .000
14084>                              +    1.0  02: S- 1- FO- DI   5. 11        .159 No_date    29:10    45. 95  n/a     .000
14085>                         SUM=      1.0  01: 520          335. 49      8. 875 No_date    29:20    64. 55  n/a     .000
14086> R0100: C00160-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14087>       SAVE HYD               1.0  01: 520          335. 49      8. 875 No_date    29:20    64. 55  n/a     .000
14088>        fname: 520. 0100
14089>        remark: Total Flows at Sation 520 on Foster Drain
14090> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
14091> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
14092> #
14093> R0100: C00161-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14094>       ROUTE CHANNEL      ->    1.0  02: 520          335. 49      8. 875 No_date    29:20    64. 55  n/a     .000
14095>        [RDT=  1. 00]  out <-    1.0  01: 520- out     335. 49      8. 790 No_date    29:26    64. 55  n/a     .000
14096>        [L/ S/ n=   860. /  .587/ .035]
14097>        [Vmx=   1. 604: Dmx=  .806]
14098> R0100: C00162-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14099>       CONTINUOUS NASHYD      1.0  01: S- 1- FO- F- D  14. 96        .496 No_date    29:03    45. 95  .519    .000
14100>        [CN=  77. 0: N=  3. 00: Tp=  1. 01]
14101>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14102>        [InterEventTime=  12. 00]
14103> R0100: C00163-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14104>       CONTINUOUS STANDHYD    1.0  01: S- 1- D8      5. 27       1. 102 No_date    28:00    70. 58  .797    .000
14105>        [XI MP=. 65: TI MP=. 65]
14106>        [LOSS=  2 : CN=  75. 0]
14107>        [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14108>        [Impervious    area: IAimp= 1. 57: SLPI=  .75: LGI= 187. : MNI=. 013: SCI=    .0]
14109>        [IaRECmp=    4. 00: IaRECper=    4. 00]
14110>        [SM N=  33. 81: SMX=225. 43: SK=  .010]
14111> R0100: C00164-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14112>       CONTINUOUS NASHYD      1.0  01: S- 1- A       75. 88       3. 578 No_date    28:36    45. 95  .519    .000
14113>        [CN=  77. 0: N=  3. 00: Tp=   .62]
14114>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14115>        [InterEventTime=  12. 00]
14116> R0100: C00165-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14117>       CONTINUOUS NASHYD      1.0  01: W_CLAR_UND    35. 65      1. 108 No_date    29:10    45. 95  .519    .000
14118>        [CN=  77. 0: N=  3. 00: Tp=  1. 10]
14119>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14120>        [InterEventTime=  12. 00]
14121> R0100: C00166-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14122>       ADD HYD                1.0  02: N_FO        53577. 82    147. 849 No_date    33:32    38. 83  n/a     .000
14123>                              +    1.0  02: 520          335. 49      8. 790 No_date    29:26    64. 55  n/a     .000
14124>                              +    1.0  02: M S_P10      73. 29       1. 240 No_date    29:12    70. 23  n/a     .000
14125>                              +    1.0  02: P10- OVF       .00        .000 No_date    0:00      .00  n/a     .000
14126>                              +    1.0  02: W_CLAR_UND    35. 65      1. 108 No_date    29:10    45. 95  n/a     .000
14127>                              +    1.0  02: S- 1- FO- F- D  14. 96        .496 No_date    29:03    45. 95  n/a     .000
14128>                              +    1.0  02: S- 1- D8      5. 27       1. 102 No_date    28:00    70. 58  n/a     .000
14129>                              +    1.0  02: S- 1- A       75. 88       3. 578 No_date    28:36    45. 95  n/a     .000
14130>                         SUM=      1.0  01: SN_FO       54118. 36    153. 577 No_date    33:32    39. 05  n/a     .000
14131> R0100: C00167-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14132>       SAVE HYD               1.0  01: SN_FO       54118. 36    153. 577 No_date    33:32    39. 05  n/a     .000
14133>        fname: SN_FO 0100
14134>        remark: Total Flows at Foster Drain
14135> # Hydrograph from Node Foster routed to Node at Cedarview Road
14136> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
14137> #
14138> R0100: C00168-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14139>       ROUTE CHANNEL      ->    1.0  02: SN_FO       54118. 36    153. 577 No_date    33:32    39. 05  n/a     .000
14140> *     [RDT=  1. 00]  out <-    1.0  01: N_CE       54118. 36    153. 492 No_date    33:33    39. 05  n/a     .000
14141>        [L/ S/ n=   159. /  .082/ .035]
14142>        [Vmx=   1. 456: Dmx=  4. 474]
14143> ********************************************************************************
14144> #     Catchment S- 1
14145> #     - To Jock River (north and south of Jock)
14146> #     - Primarily agricultural fields; portion of sand quarry
14147> ********************************************************************************
14148> R0100: C00169-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14149>       CONTINUOUS NASHYD      1.0  01: S- 1- B       55. 36       3. 260 No_date    28:23    45. 95  .519    .000
14150>        [CN=  77. 0: N=  3. 00: Tp=   .45]
14151>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14152>        [InterEventTime=  12. 00]
14153> #     - JFSA 2021-02-24 change the name from S- 1- BCDC to S- 1- A and S- 1- B. Change their TP values based on the new areas
14154> #     - JFSA 2021-02-24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore. "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
14155> #       JFSA 2021-01-19, after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymore
14156> R0100: C00170-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14157>       CONTINUOUS NASHYD      1.0  01: S- 1- D1      21. 67        .689 No_date    29:07    45. 95  .519    .000
14158>        [CN=  77. 0: N=  3. 00: Tp=  1. 07]
14159>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14160>        [InterEventTime=  12. 00]
14161> R0100: C00171-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14162>       CONTINUOUS NASHYD      1.0  01: S- 1- D4      3. 28        .102 No_date    29:10    45. 95  .519    .000
14163>        [CN=  77. 0: N=  3. 00: Tp=  1. 10]
14164>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14165>        [InterEventTime=  12. 00]
14166> R0100: C00172-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14167>       CONTINUOUS NASHYD      1.0  01: S- 1- D5      12. 84        .399 No_date    29:10    45. 95  .519    .000
14168>        [CN=  77. 0: N=  3. 00: Tp=  1. 10]
14169>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14170>        [InterEventTime=  12. 00]
14171> R0100: C00173-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14172>       CONTINUOUS NASHYD      1.0  01: S- 1- D6      1. 75        .054 No_date    29:10    45. 95  .519    .000
14173>        [CN=  77. 0: N=  3. 00: Tp=  1. 10]
14174>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14175>        [InterEventTime=  12. 00]
14176> R0100: C00174-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14177>       CONTINUOUS NASHYD      1.0  01: S- 1- D7      2. 03        .063 No_date    29:10    45. 95  .519    .000
14178>        [CN=  77. 0: N=  3. 00: Tp=  1. 10]
14179>        [IaREC=  4. 00: SM N=  31. 15: SMX=207. 66: SK=  .010]
14180>        [InterEventTime=  12. 00]
14181> #     Catchment W_CLAR
14182> #     - To West Clarke Drain (south of the Jock)
14183> #     - Subdivision with 43% imp. as per Barrhaven South MSS
14184> #     - 2020-11-30 update CLARKE Tributary Drainage Area to = 121 ha based on P598(04)-11
14185> #     - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL
14186> ********************************************************************************
14187> R0100: C00175-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
14188>       CONTINUOUS STANDHYD    1.0  01: W_CLAR_MI      1. 77        .332 No_date    28:00    66. 20  .747    .000
14189>        [XI MP=. 46: TI MP=. 59]
14190>        [LOSS=  2 : CN=  77. 0]
14191>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .
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14213> R0100: C00179-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14214>       SAVE HYD                1.0 01: W_CLAR      119.48    19.657 No_date   28:04    70.22  n/a      .000
14215>         fname : W_CLAR_0100
14216>         remark: Total Flows to West Clarke
14217> #*************************************************************************
14218> #     West Clarke Pond 2
14219> #   - Rating curve obtained from Barrhaven South MSS modeling
14220> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
14221> #*************************************************************************
14222> R0100: C00180-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14223>       ROUTE RESERVOIR -->     1.0 02: W_CLAR      119.48    19.657 No_date   28:04    70.22  n/a      .000
14224>                      out <=   1.0 01: P2_PVF      119.48    13.064 No_date   28:13    70.22  n/a      .000
14225>                overflow <=    1.0 03: P2-OVF        .00      .000 No_date   0:00      .00  n/a      .000
14226>         [MxStoRked=.3189E+01   m3,  Tot Or Vol =.0000E+00   m3,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14227> #*************************************************************************
14228> R0100: C00181-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14229>       ADD HYD                 1.0 02: N_CE       54118.36  153.492 No_date   33:33    39.05  n/a      .000
14230>                          +    1.0 02: S-1-D4         3.28     .102 No_date   29:10    45.95  n/a      .000
14231>                          +    1.0 02: S-1-D5        12.84     .399 No_date   29:10    45.95  n/a      .000
14232>                          +    1.0 02: MS_P2        119.48   13.064 No_date   28:13    70.22  n/a      .000
14233>                          +    1.0 02: P2_OVF         .00      .000 No_date   0:00      .00  n/a      .000
14234>                     SUM=      1.0 01: SN_CE      54253.96  154.467 No_date   33:33    39.12  n/a      .000
14235> R0100: C00182-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14236>       SAVE HYD                1.0 01: SN_CE      54253.96  154.467 No_date   33:33    39.12  n/a      .000
14237>         fname : SN_CE_0100
14238>         remark: Total Flows before Station 5737 on Jock River
14239> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
14240> # JFSA 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-1
14241> # JFSA 2021-03-02  change the slope to 0.1% instead of 0.0175 to stabilize the model
14242> R0100: C00183-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14243>       ROUTE CHANNEL    -->    1.0 02: SN_CE      54253.96  154.467 No_date   33:33    39.12  n/a      .000
14244> *     [RDT=  1.00]  out <-    1.0 01: 5737       54253.96  147.337 No_date   35:20    39.12  n/a      .000
14245>         [L/S/n=  .270 /  .018/ .035]
14246>         [Vmx=  .872: Dmx=  5.575]
14247> R0100: C00184-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14248>       ADD HYD                 1.0 02: 5737       54253.96  147.337 No_date   35:20    39.12  n/a      .000
14249>                          +    1.0 02: S-1-D1        21.67     .689 No_date   29:07    45.95  n/a      .000
14250>                          +    1.0 02: S-1-D6         1.75     .054 No_date   29:10    45.95  n/a      .000
14251>                          +    1.0 02: S-1-D7         2.03     .063 No_date   29:10    45.95  n/a      .000
14252>                     SUM=      1.0 01: 5002       54279.41  147.438 No_date   35:20    39.13  n/a      .000
14253> R0100: C00185-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14254>       SAVE HYD                1.0 01: 5002       54279.41  147.438 No_date   35:20    39.13  n/a      .000
14255>         fname : 5002_0100
14256>         remark: Total Flows before Station 5002 on Jock River
14257> # Hydrograph from Node Cedarview Road route to Node at West Clarke Drain
14258> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
14259> # JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable
14260> # JFSA 2021-02-19 Change the length to 275 m each instead of one with 825 m length so the model will
14261> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
14262> R0100: C00186-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14263>       ROUTE CHANNEL    -->    1.0 02: 5002       54279.41  147.438 No_date   35:20    39.13  n/a      .000
14264> *     [RDT=  1.00]  out <-    1.0 01: N_WCa      54279.41  147.366 No_date   35:29    39.13  n/a      .000
14265>         [L/S/n=  .245 /  .095/ .035]
14266>         [Vmx=  1.325: Dmx=  3.172]
14267> R0100: C00187-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14268>       ROUTE CHANNEL    -->    1.0 02: N_WCa      54279.41  147.366 No_date   35:29    39.13  n/a      .000
14269> *     [RDT=  1.00]  out <-    1.0 01: N_WCb      54279.41  147.339 No_date   35:35    39.13  n/a      .000
14270>         [L/S/n=  .245 /  .095/ .035]
14271>         [Vmx=  1.325: Dmx=  3.172]
14272> R0100: C00188-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14273>       ROUTE CHANNEL    -->    1.0 02: N_WCb      54279.41  147.339 No_date   35:35    39.13  n/a      .000
14274> *     [RDT=  1.00]  out <-    1.0 01: N_WC       54279.41  147.314 No_date   35:41    39.13  n/a      .000
14275>         [L/S/n=  .245 /  .095/ .035]
14276>         [Vmx=  1.325: Dmx=  3.171]
14277> #*************************************************************************
14278> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
14279> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
14280> #
14281> R0100: C00189-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14282>       ROUTE CHANNEL    -->    1.0 02: N_WC       54279.41  147.314 No_date   35:41    39.13  n/a      .000
14283> *     [RDT=  1.00]  out <-    1.0 01: N_KB       54279.41  146.607 No_date   35:56    39.13  n/a      .000
14284>         [L/S/n=  1020 /  .050/ .035]
14285>         [Vmx=  .987: Dmx=  3.884]
14286> #*************************************************************************
14287> #     Catchment KEN_BU
14288> #   - To Kennedy-Burnett SWM Facility
14289> #   - Outlets to Fraser-Clarke drain (north of the Jock)
14290> #   - Medium density residential subdivision
14291> #*************************************************************************
14292> #*************************************************************************
14293> #   Existing Kennedy-Burnett SWM Facility
14294> #   - Rating curve obtained from URTKBP
14295> #     - Tributary Drainage Area to Pond = 160 ha
14296> #*************************************************************************
14297> R0100: C00190-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14298>       CONTINUOUS STANDHYD     1.0 01: KB-01A      40.82     5.490 No_date   28:09    36.71  .415      .000
14299>         [XI M=.10: TI M=.40]
14300>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14301>         [Pervious       area: IAper= 4.67: SLPP=  .50: LGP=   40. : MNP=.250: SCP=    .0]
14302>         [Impervious     area: IAimp=  .79: SLPI=  .50: LGI=  522. : MNI=.013: SCI=    .0]
14303>         [IaREC mp=   4.00: IaRECper=   4.00]
14304> R0100: C00191-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14305>       COMPUTE DUALHYD         1.0 01: KB-01A      40.82     5.490 No_date   28:09    36.71  n/a      .000
14306>         Major System    /     1.0 02: KB-01A-MI      .00      .000 No_date   0:00       .00  n/a      .000
14307>         Minor System    \     1.0 03: KB-01A-MN    40.82     3.600 No_date   28:44    36.91  n/a      .000
14308>         [MjSysSto=.1774E+04,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14309> R0100: C00192-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14310>       ADD HYD                 1.0 02: KB-01A-MI      .00      .000 No_date   0:00       .00  n/a      .000
14311>                          +    1.0 02: KB-01A-MN    40.82     3.600 No_date   28:44    36.91  n/a      .000
14312>                     SUM=      1.0 01: KB-01A-S     40.82     3.600 No_date   28:44    36.91  n/a      .000
14313> R0100: C00193-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14314>       CONTINUOUS STANDHYD     1.0 01: KB-01B      31.10     4.072 No_date   28:06    40.61  .458      .000
14315>         [XI M=.19: TI M=.38]
14316>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14317>         [Pervious       area: IAper= 4.67: SLPP=  .42: LGP=   40. : MNP=.250: SCP=    .0]
14318>         [Impervious     area: IAimp=  .79: SLPI=  .42: LGI=  455. : MNI=.013: SCI=    .0]
14319>         [IaREC mp=   4.00: IaRECper=   4.00]
14320> R0100: C00194-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14321>       COMPUTE DUALHYD         1.0 01: KB-01B      31.10     4.072 No_date   28:06    40.61  n/a      .000
14322>         Major System    /     1.0 02: KB-01B-MI      .00      .000 No_date   0:00       .00  n/a      .000
14323>         Minor System    \     1.0 03: KB-01B-MN    31.10     1.585 No_date   27:51    40.77  n/a      .000
14324>         [MjSysSto=.3465E+04,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14325> R0100: C00195-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14326>       ADD HYD                 1.0 02: KB-01B-MI      .00      .000 No_date   0:00       .00  n/a      .000
14327>                          +    1.0 02: KB-01B-MN    31.10     1.585 No_date   27:51    40.77  n/a      .000
14328>                     SUM=      1.0 01: KB-01B-S     31.10     1.585 No_date   27:51    40.77  n/a      .000
14329> R0100: C00196-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14330>       CONTINUOUS STANDHYD     1.0 01: KB-01C      13.78     2.471 No_date   28:03    41.89  .473      .000
14331>         [XI M=.20: TI M=.41]
14332>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14333>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14334>         [Impervious     area: IAimp=  .79: SLPI=  .50: LGI=  303. : MNI=.013: SCI=    .0]
14335>         [IaREC mp=   4.00: IaRECper=   4.00]
14336> R0100: C00197-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14337>       COMPUTE DUALHYD         1.0 01: KB-01C      13.78     2.471 No_date   28:03    41.89  n/a      .000
14338>         Major System    /     1.0 02: KB-01C-MI      .00      .000 No_date   0:00       .00  n/a      .000
14339>         Minor System    \     1.0 03: KB-01C-MN    13.78     1.350 No_date   28:37    42.09  n/a      .000
14340>         [MjSysSto=.3650E+03,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14341> R0100: C00198-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14342>       ADD HYD                 1.0 02: KB-01C-MI      .00      .000 No_date   0:00       .00  n/a      .000
14343>                          +    1.0 02: KB-01C-MN    13.78     1.350 No_date   28:37    42.09  n/a      .000
14344>                     SUM=      1.0 01: KB-01C-S     13.78     1.350 No_date   28:37    42.09  n/a      .000
14345> R0100: C00199-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14346>       CONTINUOUS STANDHYD     1.0 01: KB-03       84.78    12.777 No_date   28:07    41.33  .467      .000
14347>         [XI M=.20: TI M=.39]
14348>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14349>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14350>         [Impervious     area: IAimp=  .79: SLPI=  .63: LGI=  752. : MNI=.013: SCI=    .0]
14351>         [IaREC mp=   4.00: IaRECper=   4.00]
14352> R0100: C00200-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14353>       COMPUTE DUALHYD         1.0 01: KB-03       84.78    12.777 No_date   28:07    41.33  n/a      .000
14354>         Major System    /     1.0 02: KB-03-MI       .00      .000 No_date   0:00       .00  n/a      .000
14355>         Minor System    \     1.0 03: KB-03-MN     84.78     5.270 No_date   29:11    41.33  n/a      .000
14356>         [MjSysSto=.8591E+04,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14357> R0100: C00201-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14358>       ADD HYD                 1.0 02: KB-03-MI       .00      .000 No_date   0:00       .00  n/a      .000
14359>                          +    1.0 02: KB-03-MN     84.78     5.270 No_date   29:11    41.33  n/a      .000
14360>                     SUM=      1.0 01: KB-03-S      84.78     5.270 No_date   29:11    41.33  n/a      .000
14361> R0100: C00202-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14362>       CONTINUOUS STANDHYD     1.0 01: KB-04        6.95     1.754 No_date   28:00    78.30  .884      .000
14363>         [XI M=.85: TI M=.85]
14364>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14365>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14366>         [Impervious     area: IAimp=  .94: SLPI=  .50: LGI=  215. : MNI=.013: SCI=    .0]
14367>         [IaREC mp=   4.00: IaRECper=   4.00]
14368> R0100: C00203-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14369>       COMPUTE DUALHYD         1.0 01: KB-04        6.95     1.754 No_date   28:00    78.30  n/a      .000
14370>         Major System    /     1.0 02: KB-04-MI       .00      .000 No_date   0:00       .00  n/a      .000
14371>         Minor System    \     1.0 03: KB-04-MN     6.95      .503 No_date   27:43    78.64  n/a      .000
14372>         [MjSysSto=.1121E+04,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14373> R0100: C00204-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14374>       ADD HYD                 1.0 02: KB-04-MI       .00      .000 No_date   0:00       .00  n/a      .000
14375>                          +    1.0 02: KB-04-MN     6.95      .503 No_date   27:43    78.64  n/a      .000
14376>                     SUM=      1.0 01: KB-04-S      6.95      .503 No_date   27:43    78.64  n/a      .000
14377> R0100: C00205-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14378>       CONTINUOUS STANDHYD     1.0 01: KB-05        5.19     1.406 No_date   28:00    82.69  .934      .000
14379>         [XI M=.93: TI M=.93]
14380>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14381>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14382>         [Impervious     area: IAimp=  1.57: SLPI=  .50: LGI=  186. : MNI=.013: SCI=    .0]
14383>         [IaREC mp=   4.00: IaRECper=   4.00]
14384> R0100: C00206-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14385>       CONTINUOUS STANDHYD     1.0 01: KB-06       12.93     3.585 No_date   28:00    79.73  .900      .000
14386>         [XI M=.87: TI M=.87]
14387>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14388>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14389>         [Impervious     area: IAimp=  .94: SLPI=4.75: LGI=  294. : MNI=.013: SCI=    .0]
14390>         [IaREC mp=   4.00: IaRECper=   4.00]
14391> R0100: C00207-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14392>       COMPUTE DUALHYD         1.0 01: KB-06       12.93     3.585 No_date   28:00    79.73  n/a      .000
14393>         Major System    /     1.0 02: KB-06-MI       .00      .000 No_date   0:00       .00  n/a      .000
14394>         Minor System    \     1.0 03: KB-06-MN     12.93     2.262 No_date   27:51    79.89  n/a      .000
14395>         [MjSysSto=.6247E+03,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14396> R0100: C00208-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14397>       ADD HYD                 1.0 02: KB-06-MI       .00      .000 No_date   0:00       .00  n/a      .000
14398>                          +    1.0 02: KB-06-MN     12.93     2.262 No_date   27:51    79.89  n/a      .000
14399>                     SUM=      1.0 01: KB-06-S      12.93     2.262 No_date   27:51    79.89  n/a      .000
14400> R0100: C00209-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14401>       CONTINUOUS STANDHYD     1.0 01: KB-11        4.03     1.012 No_date   28:00    67.54  .763      .000
14402>         [XI M=.68: TI M=.68]
14403>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14404>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14405>         [Impervious     area: IAimp=  .79: SLPI=2.00: LGI=  164. : MNI=.013: SCI=    .0]
14406>         [IaREC mp=   4.00: IaRECper=   4.00]
14407> R0100: C00210-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14408>       COMPUTE DUALHYD         1.0 01: KB-11        4.03     1.012 No_date   28:00    67.54  n/a      .000
14409>         Major System    /     1.0 02: KB-11-MI       .00      .000 No_date   0:00       .00  n/a      .000
14410>         Minor System    \     1.0 03: KB-11-MN     4.03      .577 No_date   27:51    67.60  n/a      .000
14411>         [MjSysSto=.2184E+03,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14412> R0100: C00211-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14413>       ADD HYD                 1.0 02: KB-11-MI       .00      .000 No_date   0:00       .00  n/a      .000
14414>                          +    1.0 02: KB-11-MN     4.03      .577 No_date   27:51    67.60  n/a      .000
14415>                     SUM=      1.0 01: KB-11-S      4.03      .577 No_date   27:51    67.60  n/a      .000
14416> R0100: C00212-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14417>       COMPUTE DUALHYD         1.0 01: S1           4.99     1.426 No_date   28:00    82.69  .934      .000
14418>         [XI M=.93: TI M=.93]
14419>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14420>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14421>         [Impervious     area: IAimp=  1.57: SLPI=2.00: LGI=  182. : MNI=.013: SCI=    .0]
14422>         [IaREC mp=   4.00: IaRECper=   4.00]
14423> R0100: C00213-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14424>       CONTINUOUS STANDHYD     1.0 01: KB-15        2.15      .548 No_date   28:00    75.20  .849      .000
14425>         [XI M=.79: TI M=.79]
14426>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14427>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14428>         [Impervious     area: IAimp=  .16: SLPI=  .30: LGI=  120. : MNI=.013: SCI=    .0]
14429>         [IaREC mp=   4.00: IaRECper=   4.00]
14430> R0100: C00214-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14431>       ADD HYD                 1.0 02: KB-01A-S     40.82     3.600 No_date   28:44    36.91  n/a      .000
14432>                          +    1.0 02: KB-01B-S     31.10     1.585 No_date   27:51    40.77  n/a      .000
14433>                          +    1.0 02: KB-01C-S     13.78     1.350 No_date   28:37    42.09  n/a      .000
14434>                          +    1.0 02: KB-03-S      84.78     5.270 No_date   29:11    41.33  n/a      .000
14435>                          +    1.0 02: KB-04-S       6.95      .503 No_date   27:43    78.64  n/a      .000
14436>                          +    1.0 02: KB-05         5.19     1.406 No_date   28:00    82.69  n/a      .000
14437>                          +    1.0 02: KB-06-S      12.93     2.262 No_date   27:51    79.89  n/a      .000
14438>                          +    1.0 02: KB-11-S       4.03      .577 No_date   27:51    67.60  n/a      .000
14439>                          +    1.0 02: KB-15         2.15      .548 No_date   28:00    75.20  n/a      .000
14440>                          +    1.0 02: S1            4.99     1.426 No_date   28:00    82.69  n/a      .000
14441>                     SUM=      1.0 01: KB-P1       206.72   18.527 No_date   28:00    46.99  n/a      .000
14442> R0100: C00215-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14443>       ROUTE RESERVOIR -->     1.0 02: KB-P1       206.72   18.527 No_date   28:00    46.99  n/a      .000
14444>                      out <=   1.0 01: KB-P1R      196.58   12.438 No_date   28:00    46.99  n/a      .000
14445>                overflow <=    1.0 03: KB-P1ovf      10.14     6.062 No_date   28:00    46.99  n/a      .000
14446>         [MxStoRked=.7330E+00  m3,  Tot Or f Vol =.4763E+00   m3,  N. Or f=      2,  Tot Dur Or f=     1. hrs]
14447> R0100: C00216-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14448>       ADD HYD                 1.0 02: KB-P1R       196.58   12.438 No_date   28:00    46.99  n/a      .000
14449>                          +    1.0 02: KB-P1ovf      10.14     6.062 No_date   28:00    46.99  n/a      .000
14450>                     SUM=      1.0 01: KB-Pond1     206.72   18.500 No_date   28:00    46.99  n/a      .000
14451> R0100: C00217-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14452>       SAVE HYD                1.0 01: KB-Pond1     206.72   18.500 No_date   28:00    46.99  n/a      .000
14453>         fname : KB-Pond1_0100
14454>         remark: Total Flows at KB first pond
14455> R0100: C00218-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14456>       CONTINUOUS STANDHYD     1.0 01: KB-07        10.86     2.908 No_date   28:00    79.06  .893      .000
14457>         [XI M=.86: TI M=.86]
14458>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14459>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14460>         [Impervious     area: IAimp=  .79: SLPI=2.00: LGI=  269. : MNI=.013: SCI=    .0]
14461>         [IaREC mp=   4.00: IaRECper=   4.00]
14462> R0100: C00219-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14463>       COMPUTE DUALHYD         1.0 01: KB-07        10.86     2.908 No_date   28:00    79.06  n/a      .000
14464>         Major System    /     1.0 02: KB-07-MI       .00      .000 No_date   0:00       .00  n/a      .000
14465>         Minor System    \     1.0 03: KB-07-MN     10.86     2.094 No_date   27:53    79.26  n/a      .000
14466>         [MjSysSto=.3334E+03,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14467> R0100: C00220-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14468>       ADD HYD                 1.0 02: KB-07-MI       .00      .000 No_date   0:00       .00  n/a      .000
14469>                          +    1.0 02: KB-07-MN     10.86     2.094 No_date   27:53    79.26  n/a      .000
14470>                     SUM=      1.0 01: KB-07-S      10.86     2.094 No_date   27:53    79.26  n/a      .000
14471> R0100: C00221-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14472>       CONTINUOUS STANDHYD     1.0 01: KB-08         6.61     1.609 No_date   28:00    65.36  .738      .000
14473>         [XI M=.64: TI M=.64]
14474>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14475>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14476>         [Impervious     area: IAimp=  .79: SLPI=2.00: LGI=  210. : MNI=.013: SCI=    .0]
14477>         [IaREC mp=   4.00: IaRECper=   4.00]
14478> R0100: C00222-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14479>       COMPUTE DUALHYD         1.0 01: KB-08         6.61     1.609 No_date   28:00    65.36  n/a      .000
14480>         Major System    /     1.0 02: KB-08-MI       .00      .000 No_date   0:00       .00  n/a      .000
14481>         Minor System    \     1.0 03: KB-08-MN      6.61     1.058 No_date   27:52    65.50  n/a      .000
14482>         [MjSysSto=.2397E+03,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14483> R0100: C00223-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14484>       ADD HYD                 1.0 02: KB-08-MI       .00      .000 No_date   0:00       .00  n/a      .000
14485>                          +    1.0 02: KB-08-MN      6.61     1.058 No_date   27:52    65.50  n/a      .000
14486>                     SUM=      1.0 01: KB-08-S       6.61     1.058 No_date   27:52    65.50  n/a      .000
14487> R0100: C00224-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14488>       CONTINUOUS STANDHYD     1.0 01: KB-09         2.60      .727 No_date   28:00    78.38  .885      .000
14489>         [XI M=.86: TI M=.86]
14490>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14491>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14492>         [Impervious     area: IAimp=  1.57: SLPI=2.00: LGI=  132. : MNI=.013: SCI=    .0]
14493>         [IaREC mp=   4.00: IaRECper=   4.00]
14494> R0100: C00225-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14495>       CONTINUOUS STANDHYD     1.0 01: KB-10_1       2.37      .663 No_date   28:00    78.39  .885      .000
14496>         [XI M=.86: TI M=.86]
14497>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14498>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14499>         [Impervious     area: IAimp=  1.57: SLPI=2.00: LGI=  126. : MNI=.013: SCI=    .0]
14500>         [IaREC mp=   4.00: IaRECper=   4.00]
14501> R0100: C00226-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14502>       CONTINUOUS STANDHYD     1.0 01: KB-10_2       1.14      .322 No_date   28:00    78.39  .885      .000
14503>         [XI M=.86: TI M=.86]
14504>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14505>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14506>         [Impervious     area: IAimp=  1.57: SLPI=2.00: LGI=  87. : MNI=.013: SCI=    .0]
14507>         [IaREC mp=   4.00: IaRECper=   4.00]
14508> R0100: C00227-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14509>       CONTINUOUS STANDHYD     1.0 01: KB-12         4.86     1.294 No_date   28:00    74.45  .841      .000
14510>         [XI M=.79: TI M=.79]
14511>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14512>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14513>         [Impervious     area: IAimp=  1.10: SLPI=2.00: LGI=  180. : MNI=.013: SCI=    .0]
14514>         [IaREC mp=   4.00: IaRECper=   4.00]
14515> R0100: C00228-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14516>       COMPUTE DUALHYD         1.0 01: KB-12         4.86     1.294 No_date   28:00    74.45  n/a      .000
14517>         Major System    /     1.0 02: KB-12-MI       .00      .000 No_date   0:00       .00  n/a      .000
14518>         Minor System    \     1.0 03: KB-12-MN      4.86      .867 No_date   28:11    74.79  n/a      .000
14519>         [MjSysSto=.1873E+03,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14520> R0100: C00229-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14521>       ADD HYD                 1.0 02: KB-12-MI       .00      .000 No_date   0:00       .00  n/a      .000
14522>                          +    1.0 02: KB-12-MN      4.86      .867 No_date   28:11    74.79  n/a      .000
14523>                     SUM=      1.0 01: KB-12-S       4.86      .867 No_date   28:11    74.79  n/a      .000
14524> R0100: C00230-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14525>       CONTINUOUS STANDHYD     1.0 01: KB-13        10.19     2.407 No_date   28:00    65.36  .738      .000
14526>         [XI M=.64: TI M=.64]
14527>         [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
14528>         [Pervious       area: IAper= 4.67: SLPP=2.00: LGP=   40. : MNP=.250: SCP=    .0]
14529>         [Impervious     area: IAimp=  .79: SLPI=2.00: LGI=  261. : MNI=.013: SCI=    .0]
14530>         [IaREC mp=   4.00: IaRECper=   4.00]
14531> R0100: C00231-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14532>       COMPUTE DUALHYD         1.0 01: KB-13        10.19     2.407 No_date   28:00    65.36  n/a      .000
14533>         Major System    /     1.0 02: KB-13-MI       .00      .000 No_date   0:00       .00  n/a      .000
14534>         Minor System    \     1.0 03: KB-13-MN     10.19     1.722 No_date   27:54    65.63  n/a      .000
14535>         [MjSysSto=.2806E+03,  Tot Or f Vol =.0000E+00,  N. Or f=      0,  Tot Dur Or f=     0. hrs]
14536> R0100: C00232-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14537>       ADD HYD                 1.0 02: KB-13-MI       .00      .000 No_date   0:00       .00  n/a      .000
14538>                          +    1.0 02: KB-13-MN     10.19     1.722 No_date   27:54    65.63  n/a      .000
14539>                     SUM=      1.0 01: KB-13-S      10.19     1.722 No_date   27:54    65.63  n/a      .000
14540> R0100: C00233-------------DTmin-1 D: NHYD----------AREAha - QPEAKcms - TpeakDate_hh:mm----RVmm R. C.----DWFcms
14541>       CONTINUOUS STANDHYD     1.0 01: KB-14         5.47     1.338 No_date   28:00    65.36  .738      
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14587>          remark: Total Flows at KB second pond
14588> R0100: C00241------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14589>       CONTINUOUS STANDHYD     1.0 01: KB-16_1          2.80       .686 No_date   28:00    72.68 .821      .000
14590>          [ XI M=. 75: TI M=. 75]
14591>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
14592>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14593>          [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 137. : MNI=. 013: SCI=    .0]
14594>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14595> R0100: C00242------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14596>       ADD HYD                 1.0 02: KB-Pond2       254. 24    24. 544 No_date   28:06    51. 59  n/a      .000
14597>                          +    1.0 02: KB-16_1          2. 80      .686 No_date   28:00    72. 68  n/a      .000
14598>                     STUM=     1.0 01: KB-P3            257. 04    24. 930 No_date   28:06    51. 82  n/a      .000
14599> R0100: C00243------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14600>       ROUTE RESERVOIR -->     1.0 02: KB-P3            257. 04    24. 930 No_date   28:06    51. 82  n/a      .000
14601>                          out <=    1.0 01: KB-P3R         8. 56      .051 No_date   17:08    51. 81  n/a      .000
14602>                     overflow <=    1.0 03: KB-P3ovf     248. 48    24. 659 No_date   28:07    51. 82  n/a      .000
14603>          [ MxStoUsed=. 1991E-02   m3,  Tot Ovf Vol =. 1288E+02   m3,  N-Ov f=      1,  Tot Dur Ov f=    23. hrs]
14604> R0100: C00244------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14605>       ADD HYD                 1.0 02: KB-P3R           8. 56      .051 No_date   17:08    51. 81  n/a      .000
14606>                          +    1.0 02: KB-P3ovf     248. 48    24. 659 No_date   28:07    51. 82  n/a      .000
14607>                     STUM=     1.0 01: KB-Pond3       257. 04    24. 710 No_date   28:05    51. 82  n/a      .000
14608> R0100: C00245------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14609>       SAVE HYD                1.0 01: KB-Pond3       257. 04    24. 710 No_date   28:07    51. 82  n/a      .000
14610>          fname : KB-Pond3. 0100
14611>          remark: Total Flows at KB third pond
14612> #*************************************************************************
14613> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
14614> #     - TO FRASER-CLARKE DRAIN
14615> #*************************************************************************
14616> R0100: C00246------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14617>       CONTINUOUS STANDHYD     1.0 01: FC-01            8. 03      1. 646 No_date   28:01    54. 40  .614     .000
14618>          [ XI M=. 47: TI M=. 47]
14619>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
14620>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14621>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=    .0]
14622>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14623> R0100: C00247------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14624>       COMPUTE DUALHYD         1.0 01: FC-01            8. 03      1. 646 No_date   28:01    54. 40  n/a      .000
14625>          Major System    /    1.0 02: FC-01-MJ          .00        .000 No_date   00:00     .00  n/a      .000
14626>          Minor System    \    1.0 03: FC-01-MN         8. 03      .756 No_date   27:49    54. 46  n/a      .000
14627>          [ MJ Sys Sto=. 6274E+03,  Tot Ovf Vol =. 0000E+00,  N-Ov f=      0,  Tot Dur Ov f=     0. hrs]
14628> R0100: C00248------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14629>       ADD HYD                 1.0 02: FC-01-MJ          .00        .000 No_date   0:00      .00  n/a      .000
14630>                          +    1.0 02: FC-01-MN         8. 03      .756 No_date   27:49    54. 46  n/a      .000
14631>                     STUM=     1.0 01: FC-01-S          8. 03      .756 No_date   27:49    54. 46  n/a      .000
14632> R0100: C00249------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14633>       CONTINUOUS STANDHYD     1.0 01: FC-02           16. 05      4. 197 No_date   28:00    82. 69  .934     .000
14634>          [ XI M=. 93: TI M=. 93]
14635>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
14636>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14637>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=    .0]
14638>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14639> R0100: C00250------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14640>       COMPUTE DUALHYD        1.0 01: FC-02           16. 05      4. 197 No_date   28:00    82. 69  n/a      .000
14641>          Major System    /    1.0 02: FC-02-MJ          .45       1. 768 No_date   28:05    82. 69  n/a      .000
14642>          Minor System    \    1.0 03: FC-02-MN        15. 60      1. 159 No_date   27:43    82. 88  n/a      .000
14643>          [ MJ Sys Sto=. 2385E+04,  Tot Ovf Vol =. 3716E+03,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14644> R0100: C00251------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14645>       ADD HYD                 1.0 02: FC-02-MJ          .45       1. 768 No_date   28:05    82. 69  n/a      .000
14646>                          +    1.0 02: FC-02-MN        15. 60      1. 159 No_date   27:43    82. 88  n/a      .000
14647>                     SUM=      1.0 01: FC-02-S         16. 05      2. 927 No_date   28:05    82. 87  n/a      .000
14648> R0100: C00252------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14649>       CONTINUOUS STANDHYD     1.0 01: FC-03            7. 37      1. 717 No_date   28:00    64. 86  .732     .000
14650>          [ XI M=. 64: TI M=. 64]
14651>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
14652>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14653>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=    .0]
14654>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14655> R0100: C00253------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14656>       COMPUTE DUALHYD        1.0 01: FC-03            7. 37      1. 717 No_date   28:00    64. 86  n/a      .000
14657>          Major System    /    1.0 02: FC-03-MJ          .34        .661 No_date   28:06    64. 86  n/a      .000
14658>          Minor System    \    1.0 03: FC-03-MN         7. 03      .358 No_date   27:41    64. 90  n/a      .000
14659>          [ MJ Sys Sto=. 1131E+04,  Tot Ovf Vol =. 2188E+03,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14660> R0100: C00254------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14661>       ADD HYD                 1.0 02: FC-03-MJ          .34        .661 No_date   28:06    64. 86  n/a      .000
14662>                          +    1.0 02: FC-03-MN         7. 03      .358 No_date   27:41    64. 90  n/a      .000
14663>                     SUM=      1.0 01: FC-03-S          7. 37      1. 019 No_date   28:06    64. 90  n/a      .000
14664> R0100: C00255------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14665>       CONTINUOUS STANDHYD     1.0 01: FC-04           12. 87      2. 884 No_date   28:01    64. 86  .732     .000
14666>          [ XI M=. 64: TI M=. 64]
14667>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
14668>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14669>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 293. : MNI=. 013: SCI=    .0]
14670>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14671> R0100: C00256------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14672>       COMPUTE DUALHYD        1.0 01: FC-04           12. 87      2. 884 No_date   28:01    64. 86  n/a      .000
14673>          Major System    /    1.0 02: FC-04-MJ          .44        .978 No_date   28:07    64. 86  n/a      .000
14674>          Minor System    \    1.0 03: FC-04-MN        12. 43      .741 No_date   27:43    65. 10  n/a      .000
14675>          [ MJ Sys Sto=. 1794E+04,  Tot Ovf Vol =. 2828E+03,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14676> R0100: C00257------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14677>       ADD HYD                 1.0 02: FC-04-MJ          .44        .978 No_date   28:07    64. 86  n/a      .000
14678>                          +    1.0 02: FC-04-MN        12. 43      .741 No_date   27:43    65. 10  n/a      .000
14679>                     SUM=      1.0 01: FC-04-S         12. 87      1. 719 No_date   28:07    65. 09  n/a      .000
14680> #*************************************************************************
14681> #     PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (1180080), SWM Modeling Approach, NOVATECH Report June, 2020)
14682> #     - TO JOCK RIVER
14683> #*************************************************************************
14684> R0100: C00258------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14685>       CONTINUOUS STANDHYD     1.0 01: JR-01            8. 24      1. 891 No_date   28:00    64. 86  .732     .000
14686>          [ XI M=. 64: TI M=. 64]
14687>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
14688>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14689>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 234. : MNI=. 013: SCI=    .0]
14690>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14691> R0100: C00259------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14692>       COMPUTE DUALHYD        1.0 01: JR-01            8. 24      1. 891 No_date   28:00    64. 86  n/a      .000
14693>          Major System    /    1.0 02: JR-01-MJ          .20        .471 No_date   28:06    64. 86  n/a      .000
14694>          Minor System    \    1.0 03: JR-01-MN         8. 04      .563 No_date   27:44    64. 95  n/a      .000
14695>          [ MJ Sys Sto=. 1040E+04,  Tot Ovf Vol =. 1267E+03,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14696> R0100: C00260------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14697>       ADD HYD                 1.0 02: JR-01-MJ          .20        .471 No_date   28:06    64. 86  n/a      .000
14698>                          +    1.0 02: JR-01-MN         8. 04      .563 No_date   27:44    64. 95  n/a      .000
14699>                     SUM=      1.0 01: JR-01-S          8. 24      1. 034 No_date   28:06    64. 95  n/a      .000
14700> R0100: C00261------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14701>       CONTINUOUS STANDHYD     1.0 01: JR-02            1. 59       .393 No_date   28:00    64. 86  .732     .000
14702>          [ XI M=. 64: TI M=. 64]
14703>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
14704>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14705>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 103. : MNI=. 013: SCI=    .0]
14706>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14707> R0100: C00262------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14708>       COMPUTE DUALHYD        1.0 01: JR-02            1. 59       .393 No_date   28:00    64. 85  n/a      .000
14709>          Major System    /    1.0 02: JR-02-MJ          .02        .087 No_date   28:03    64. 85  n/a      .000
14710>          Minor System    \    1.0 03: JR-02-MN         1. 57       .153 No_date   27:44    65. 24  n/a      .000
14711>          [ MJ Sys Sto=. 1530E+03,  Tot Ovf Vol =. 1375E+02,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14712> R0100: C00263------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14713>       ADD HYD                 1.0 02: JR-02-MJ          .02        .087 No_date   28:03    64. 85  n/a      .000
14714>                          +    1.0 02: JR-02-MN         1. 57       .153 No_date   27:44    65. 24  n/a      .000
14715>                     SUM=      1.0 01: JR-02-S          1. 59       .240 No_date   28:03    65. 23  n/a      .000
14716> #*************************************************************************
14717> #     Catchment FRASER
14718> #     - To Fraser-Clarke drain (north of the Jock)
14719> #     - Developed land with assumed 43% imp.
14720> #     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
14721> #     - 2020-12-17 All Fraser is undeveloped (Nashyd)
14722> #*************************************************************************
14723> R0100: C00264------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14724>       CONTINUOUS NASHYD       1.0 01: FRASER-DRN      13. 65       .837 No_date   28:21    45. 95  .519     .000
14725>          [ CN=  77. 0:  N=  3. 00:  Tp=    .43]
14726>          [ Ia REC=  4. 00:  SMN=  31. 15:  SMX=207. 66:  SK=  .010]
14727>          [ Inter Event Time=  12. 00]
14728> R0100: C00265------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14729>       CONTINUOUS NASHYD       1.0 01: FRASER-D        21. 61       .959 No_date   28:40    45. 95  .519     .000
14730>          [ CN=  77. 0:  N=  3. 00:  Tp=    .67]
14731>          [ Ia REC=  4. 00:  SMN=  31. 15:  SMX=207. 66:  SK=  .010]
14732>          [ Inter Event Time=  12. 00]
14733> R0100: C00266------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14734>       ADD HYD                 1.0 02: KB-Pond3       257. 04    24. 710 No_date   28:07    51. 82  n/a      .000
14735>                          +    1.0 02: S-1-B            55. 36      3. 260 No_date   28:23    45. 95  n/a      .000
14736>                          +    1.0 02: FRASER-DRN       13. 65       .837 No_date   28:21    45. 95  n/a      .000
14737>                          +    1.0 02: FRASER-D         21. 61       .959 No_date   28:40    45. 95  n/a      .000
14738>                          +    1.0 02: N_KB          54279. 41   146. 607 No_date   35:56    39. 13  n/a      .000
14739>                          +    1.0 02: FC-01-S          8. 03       .756 No_date   27:49    54. 46  n/a      .000
14740>                          +    1.0 02: FC-02-S         16. 05      2. 927 No_date   28:05    82. 87  n/a      .000
14741>                          +    1.0 02: FC-03-S          7. 37      1. 019 No_date   28:06    64. 90  n/a      .000
14742>                     SUM=      1.0 01: 4241            54658. 52   147. 494 No_date   35:56    39. 22  n/a      .000
14743> R0100: C00267------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14744>       SAVE HYD                1.0 01: 4241            54658. 52   147. 494 No_date   35:56    39. 22  n/a      .000
14745>          fname : 4241. 0100
14746>          remark: Total Flows at Ken-Burnett Outlet
14747> # Hydrograph from Node Ken-Burnett to station 3633
14748> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
14749> #
14750> R0100: C00268------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14751>       ROUTE CHANNEL   -->     1.0 02: 4241            54658. 52   147. 494 No_date   35:56    39. 22  n/a      .000
14752> *     {RDT=  1. 00}  out <-    1.0 01: 4241-out        54658. 52   147. 461 No_date   35:49    39. 22  n/a      .000
14753>          [ L/ S/ n=    294. /  . 109/ . 035]
14754>          [ Vmx=  1. 403: Dmx=  2. 621]
14755> R0100: C00269------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14756>       ADD HYD                 1.0 02: 4241-out        54658. 52   147. 461 No_date   35:49    39. 22  n/a      .000
14757>                          +    1.0 02: FC-04-S          12. 87      1. 719 No_date   28:07    65. 09  n/a      .000
14758>                          +    1.0 02: JR-01-S           8. 24      1. 034 No_date   28:06    64. 95  n/a      .000
14759>                          +    1.0 02: JR-02-S           1. 59       .240 No_date   28:03    65. 23  n/a      .000
14760>                     SUM=      1.0 01: SN_KB           54681. 21   147. 525 No_date   35:49    39. 23  n/a      .000
14761> R0100: C00270------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14762>       SAVE HYD                1.0 01: SN_KB           54681. 21   147. 525 No_date   35:49    39. 23  n/a      .000
14763>          fname : SN_KB. 0100
14764>          remark: HYD_COMMENT=[" Total Flows before Station 3633]
14765> # Hydrograph from Station 3633 to Node Todd
14766> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
14767> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
14768> #
14769> R0100: C00271------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14770>       ROUTE CHANNEL   -->     1.0 02: SN_KB           54681. 21   147. 525 No_date   35:49    39. 23  n/a      .000
14771>          [ RDT=  1. 00]  out <-   1.0 01: N_TO          54681. 21   147. 299 No_date   35:49    39. 23  n/a      .000
14772>          [ L/ S/ n=    608. /  . 247/ . 035]
14773>          [ Vmx=  1. 918: Dmx=  1. 962]
14774> #*************************************************************************
14775> #     Catchment Greenbank
14776> #     - To Greenbank Drain (south of the Jock)
14777> #     - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
14778> #     - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
14779> #*************************************************************************
14780> R0100: C00272------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14781>       CONTINUOUS STANDHYD     1.0 01: Greenbank       36. 60      7. 069 No_date   28:01    71. 80  .811     .000
14782>          [ XI M=. 64: TI M=. 68]
14783>          [ LOSS= 2 : CN=  77. 0]
14784>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14785>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=    .0]
14786>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14787>          [ SM N=  31. 15:  SMX=207. 66:  SK=  .010]
14788> R0100: C00273------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14789>       ROUTE RESERVOIR -->     1.0 02: Greenbank       36. 60      7. 069 No_date   28:01    71. 80  n/a      .000
14790>                          out <=    1.0 01: GreenB_MN      36. 60      5. 350 No_date   28:07    71. 80  n/a      .000
14791>                     overflow <=    1.0 03: GreenB_MJ        .00        .000 No_date   0:00      .00  n/a      .000
14792>          [ MxStoUsed=. 9351E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N-Ov f=      0,  Tot Dur Ov f=     0. hrs]
14793> R0100: C00274------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14794>       ADD HYD                 1.0 02: N_TO            54681. 21   147. 299 No_date   35:49    39. 23  n/a      .000
14795>                          +    1.0 02: GreenB_MJ        .00        .000 No_date   0:00      .00  n/a      .000
14796>                          +    1.0 02: GreenB_MN        36. 60      5. 350 No_date   28:07    71. 80  n/a      .000
14797>                     SUM=      1.0 01: GreenB          54717. 82   147. 488 No_date   35:49    39. 25  n/a      .000
14798> R0100: C00275------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14799>       SAVE HYD                1.0 01: GreenB          54717. 82   147. 488 No_date   35:49    39. 25  n/a      .000
14800>          fname : GreenB. 0100
14801>          remark: Total Flows at Greenbank Drain
14802> #*************************************************************************
14803> #     Catchment TODD
14804> #     - To Todd Drain (south of the Jock)
14805> #     - Subdivision with 43% imp. as per Barrhaven South MSS
14806> #     - 2020-11-30 increase imp. to be based on P598(04)-11
14807> #     - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on P598(04)-11
14808> #     - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
14809> #*************************************************************************
14810> #     - JFSA 2021-01-19 add "TODD_MN" as part of Clarke("W_CLAR_M") and remove it from Todd
14811> R0100: C00276------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14812>       CONTINUOUS STANDHYD     1.0 01: TODD_MN2         2. 10       .428 No_date   28:00    66. 78  .754     .000
14813>          [ XI M=. 53: TI M=. 57]
14814>          [ LOSS= 2 : CN=  77. 0]
14815>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14816>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=    .0]
14817>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14818>          [ SM N=  31. 15:  SMX=207. 66:  SK=  .010]
14819> R0100: C00277------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14820>       CONTINUOUS STANDHYD     1.0 01: TODD_MN3          .12       .025 No_date   28:00    66. 78  .754     .000
14821>          [ XI M=. 53: TI M=. 57]
14822>          [ LOSS= 2 : CN=  77. 0]
14823>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14824>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=    .0]
14825>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14826>          [ SM N=  31. 15:  SMX=207. 66:  SK=  .010]
14827> R0100: C00278------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14828>       CONTINUOUS STANDHYD     1.0 01: TODD_MJ          30. 23      5. 210 No_date   28:02    68. 65  .775     .000
14829>          [ XI M=. 52: TI M=. 64]
14830>          [ LOSS= 2 : CN=  77. 0]
14831>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14832>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=    .0]
14833>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14834>          [ SM N=  31. 15:  SMX=207. 66:  SK=  .010]
14835> R0100: C00279------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14836>       CONTINUOUS STANDHYD     1.0 01: TODD_ALL        112. 91      17. 286 No_date   28:04    66. 60  .752     .000
14837>          [ XI M=. 52: TI M=. 57]
14838>          [ LOSS= 2 : CN=  77. 0]
14839>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14840>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=    .0]
14841>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14842>          [ SM N=  31. 15:  SMX=207. 66:  SK=  .010]
14843> R0100: C00280------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14844>       CONTINUOUS STANDHYD     1.0 01: TODD_P           3. 06       .669 No_date   28:00    70. 28  .794     .000
14845>          [ XI M=. 63: TI M=. 63]
14846>          [ LOSS= 2 : CN=  77. 0]
14847>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14848>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 143. : MNI=. 013: SCI=    .0]
14849>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14850>          [ SM N=  31. 15:  SMX=207. 66:  SK=  .010]
14851> # 5-Year + 12% Capture
14852> R0100: C00281------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14853>       ROUTE RESERVOIR -->     1.0 02: TODD_MJ          30. 23      5. 210 No_date   28:02    68. 65  n/a      .000
14854>                          out <=    1.0 01: TODD_MJ          28. 64      3. 314 No_date   27:54    68. 65  n/a      .000
14855>                     overflow <=    1.0 03: TODD_MJj         1. 59      1. 889 No_date   28:02    68. 65  n/a      .000
14856>          [ MxStoUsed=. 1512E-03   m3,  Tot Ovf Vol =. 1094E+00   m3,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14857> # 5-Year + 12% Capture
14858> R0100: C00282------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14859>       ROUTE RESERVOIR -->     1.0 02: TODD_MN2         2. 10       .428 No_date   28:00    66. 78  n/a      .000
14860>                          out <=    1.0 01: TODD_MN2n        1. 99       .268 No_date   27:52    66. 78  n/a      .000
14861>                     overflow <=    1.0 03: TODD_MN2j         .11        .155 No_date   28:00    66. 78  n/a      .000
14862>          [ MxStoUsed=. 1204E-03   m3,  Tot Ovf Vol =. 7282E-02   m3,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14863> R0100: C00283------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14864>       ROUTE RESERVOIR -->     1.0 02: TODD_MN3          .12       .025 No_date   28:00    66. 78  n/a      .000
14865>                          out <=    1.0 01: TODD_MN3n        .11        .016 No_date   27:52    66. 78  n/a      .000
14866>                     overflow <=    1.0 03: TODD_MN3j         .01        .009 No_date   28:00    66. 78  n/a      .000
14867>          [ MxStoUsed=. 9808E-04   m3,  Tot Ovf Vol =. 3933E-03   m3,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14868> R0100: C00284------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14869>       CONTINUOUS STANDHYD     1.0 01: A2              25. 50      3. 884 No_date   28:03    62. 46  .705     .000
14870>          [ XI M=. 42: TI M=. 52]
14871>          [ LOSS= 2 : CN=  75. 0]
14872>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
14873>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 566. : MNI=. 013: SCI=    .0]
14874>          [ Ia REC] mp=   4. 00: Ia RECper=   4. 00]
14875>          [ SM N=  33. 81:  SMX=225. 43:  SK=  .010]
14876> R0100: C00285------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14877>       COMPUTE DUALHYD         1.0 01: A2              25. 50      3. 884 No_date   28:03    62. 46  n/a      .000
14878>          Major System    /    1.0 02: A2-MJ            1. 43      2. 026 No_date   28:04    62. 46  n/a      .000
14879>          Minor System    \    1.0 03: A2-MN           24. 07      1. 818 No_date   27:50    62. 71  n/a      .000
14880>          [ MJ Sys Sto=. 9240E+03,  Tot Ovf Vol =. 8908E+03,  N-Ov f=      1,  Tot Dur Ov f=     0. hrs]
14881> R0100: C00286------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14882>       ADD HYD                 1.0 02: TODD_MN2n        1. 99       .268 No_date   27:52    66. 78  n/a      .000
14883>                          +    1.0 02: TODD_MN3n         .11        .016 No_date   27:52    66. 78  n/a      .000
14884>                          +    1.0 02: TODD_MJj         1. 59      1. 889 No_date   28:02    68. 65  n/a      .000
14885>                          +    1.0 02: TODD_P           3. 06       .669 No_date   28:00    70. 28  n/a      .000
14886>                          +    1.0 02: TODD_ALL       112. 91      17. 286 No_date   28:04    66. 60  n/a      .000
14887>                          +    1.0 02: W_CLAR_Mn        1. 69       .213 No_date   27:52    66. 22  n/a      .000
14888>                     SUM=      1.0 01: TODD            121. 35      20. 000 No_date   28:03    66. 72  n/a      .000
14889> R0100: C00287------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14890>       SAVE HYD                1.0 01: TODD            121. 35      20. 000 No_date   28:03    66. 72  n/a      .000
14891>          fname : TODD 0100
14892>          remark: Total Flows at Todd Drain
14893> #*************************************************************************
14894> #     Todd Pond 3
14895> #     - Rating curve obtained from Barrhaven South MSS modeling
14896> #     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
14897> #*************************************************************************
14898> R0100: C00288------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14899>       ROUTE RESERVOIR -->     1.0 02: TODD            121. 35      20. 000 No_date   28:03    66. 72  n/a      .000
14900>                          out <=    1.0 01: MS_P3           121. 35      15. 844 No_date   28:09    66. 71  n/a      .000
14901>                     overflow <=    1.0 03: OVF              .00        .000 No_date   0:00      .00  n/a      .000
14902>          [ MxStoUsed=. 2834E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N-Ov f=      0,  Tot Dur Ov f=     0. hrs]
14903> R0100: C00289------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14904>       ADD HYD                 1.0 02: GreenB          54717. 82   147. 488 No_date   35:49    39. 25  n/a      .000
14905>                          +    1.0 02: MS_P3           121. 35      15. 844 No_date   28:09    66. 71  n/a      .000
14906>                          +    1.0 02: P3-OVF             .00        .000 No_date   0:00      .00  n/a      .000
14907>                          +    1.0 02: TODD_MN3j          .11        .155 No_date   28:00    66. 78  n/a      .000
14908>                          +    1.0 02: A2-MJ             1. 43      2. 026 No_date   28:04    62. 46  n/a      .000
14909>                     SUM=      1.0 01: SN_TO           54840. 70   147. 973 No_date   35:49    39. 31  n/a      .000
14910> R0100: C00290------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14911>       SAVE HYD                1.0 01: SN_TO           54840. 70   147. 973 No_date   35:49    39. 31  n/a      .000
14912>          fname : SN_TO 0100
14913>          remark: Total Flows at Todd Drain
14914> #
14915> # Hydrograph from Todd Drain routed to Corrigan Drain
14916> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
14917> # 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so the model will be more stable and g
14918> R0100: C00291------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14919>       ROUTE CHANNEL   -->     1.0 
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14961>          Major System   /      1. 0 02: AI - MI          .00      .000 No_date    0: 00      .00  n/a      .000
14962>          Minor System   \      1. 0 03: AI - MN        15. 75    1. 818 No_date   27: 55    62. 48  n/a      .000
14963>          [MjSysSto=.3859E+03,  TotOrfVol=.0000E+00,  N-Orf=      0,  TotDurOrf=      0. hrs]
14964> R0100: C00298- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
14965>          CONTI NUOUS NASHYD      1. 0 01: BI              2. 77      .143 No_date   28: 09    29. 03  . 328    .000
14966>          [CN=  56. 0  N=  3. 00:  Tp=    .23]
14967>          [I aREC=  4. 00:  SMN=  79. 69:  SMX=  531. 24:  SK=  . 010]
14968>          [I nterEvent Ti me=   12. 00]
14969> R0100: C00299- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
14970>          CONTI NUOUS STANDHYD    1. 0 01: A4              1. 27      .266 No_date   28: 00    70. 58  . 797    .000
14971>            [ XI M=. 65: TI MP=. 65]
14972>            [ LOSS=  2 : CN=  75. 0]
14973>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
14974>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  253. : MNI =. 013: SCI =     . 0]
14975>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
14976>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
14977> R0100: C00300- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
14978>          COMPUTE DUALHYD         1. 0 01: A4              1. 27      .266 No_date   28: 00    70. 58  n/a      .000
14979>          Major System   /      1. 0 02: A4 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
14980>          Minor System   \      1. 0 03: A4 - MN        1. 27      .266 No_date   28: 00    70. 58  n/a      .000
14981>          [MjSysSto=.0000E+00,  TotOrfVol=.0000E+00,  N-Orf=      0,  TotDurOrf=      0. hrs]
14982> R0100: C00301- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
14983>          ADD HYD                 1. 0 02: A1 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
14984>                            +     1. 0 02: A1 - MN        15. 75    1. 818 No_date   27: 55    62. 48  n/a      .000
14985>                            +     1. 0 02: corr1 - MI       .00      .000 No_date    0: 00      .00  n/a      .000
14986>                            +     1. 0 02: corr1 - MN     15. 87    1. 818 No_date   28: 25    70. 70  n/a      .000
14987>                            +     1. 0 02: corr2          12. 47     . 388 No_date   29: 10    45. 95  n/a      .000
14988>                            +     1. 0 02: BI              2. 77      .143 No_date   28: 09    29. 03  n/a      .000
14989>                            +     1. 0 02: A4 - MN         1. 27      .266 No_date   28: 00    70. 58  n/a      .000
14990>                            SUM=  1. 0 01: MH01           48. 13    4. 085 No_date   28: 02    59. 20  n/a      .000
14991> R0100: C00302- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
14992>          SAVE HYD                1. 0 01: MH01            48. 13    4. 085 No_date   28: 02    59. 20  n/a      .000
14993>            fname : MH01. 0100
14994>            remark: Total Flows at MH01
14995> R0100: C00303- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
14996>          ROUTE PI PE             ->     1. 0 02: MH01            48. 13    4. 085 No_date   28: 02    59. 20  n/a      .000
14997> *        [ RDT=  1. 00]  out <-         1. 0 01: 101- 102        48. 13    4. 065 No_date   28: 03    59. 20  n/a      .000
14998>            [ L/ S=  368. /  . 540/ . 013]
14999>            [ Vmax=  3. 154: Dmax=  1. 125]
15000>            [ Di n=  1. 05: Dused=  1. 37]
15001> R0100: C00304- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15002>          ADD HYD                 1. 0 02: A2 - MI         24. 07    1. 818 No_date   27: 55    62. 71  n/a      .000
15003>                            +     1. 0 02: 101- 102        48. 13    4. 065 No_date   28: 03    59. 20  n/a      .000
15004>                            SUM=  1. 0 01: MH02           72. 20    5. 883 No_date   28: 03    60. 37  n/a      .000
15005> R0100: C00305- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15006>          SAVE HYD                1. 0 01: MH02            72. 20    5. 883 No_date   28: 03    60. 37  n/a      .000
15007>            fname : MH02. 0100
15008>            remark: Total Flows at MH02
15009> R0100: C00306- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15010>          CONTI NUOUS STANDHYD    1. 0 01: A5              1. 60      .346 No_date   28: 01    73. 40  . 829    .000
15011>            [ XI M=. 71: TI MP=. 71]
15012>            [ LOSS=  2 : CN=  75. 0]
15013>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15014>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  300. : MNI =. 013: SCI =     . 0]
15015>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15016>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15017> R0100: C00307- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15018>          ADD HYD                 1. 0 02: A4 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15019>                            +     1. 0 02: A5              1. 60      .346 No_date   28: 01    73. 40  n/a      .000
15020>                            SUM=  1. 0 01: A5T             1. 60      .346 No_date   28: 01    73. 40  n/a      .000
15021> R0100: C00308- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15022>          COMPUTE DUALHYD         1. 0 01: A5T             1. 60      .346 No_date   28: 01    73. 40  n/a      .000
15023>          Major System   /      1. 0 02: A5 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15024>          Minor System   \      1. 0 03: A5 - MN        1. 60      .346 No_date   28: 01    73. 40  n/a      .000
15025>          [MjSysSto=.0000E+00,  TotOrfVol=.0000E+00,  N-Orf=      0,  TotDurOrf=      0. hrs]
15026> R0100: C00309- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15027>          ROUTE PI PE             ->     1. 0 02: MH02            72. 20    5. 883 No_date   28: 03    60. 37  n/a      .000
15028> *        [ RDT=  1. 00]  out <-         1. 0 01: 102- 103        72. 20    5. 831 No_date   28: 12    60. 37  n/a      .000
15029>            [ L/ S=  504. /  . 280/ . 013]
15030>            [ Vmax=  2. 701: Dmax=  1. 459]
15031>            [ Di n=  1. 50: Dused=  1. 78]
15032> R0100: C00310- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15033>          ADD HYD                 1. 0 02: 102- 103        72. 20    5. 831 No_date   28: 12    60. 37  n/a      .000
15034>                            +     1. 0 02: A5 - MN         1. 60      .346 No_date   28: 01    73. 40  n/a      .000
15035>                            SUM=  1. 0 01: MH03           73. 80    6. 079 No_date   28: 04    60. 65  n/a      .000
15036> R0100: C00311- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15037>          SAVE HYD                1. 0 01: MH03            73. 80    6. 079 No_date   28: 04    60. 65  n/a      .000
15038>            fname : MH03. 0100
15039>            remark: Total Flows at MH03
15040> R0100: C00312- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15041>          ROUTE PI PE             ->     1. 0 02: MH03            73. 80    6. 079 No_date   28: 04    60. 65  n/a      .000
15042>          [ RDT=  1. 00]  out <-         1. 0 01: 103- 104        73. 80    6. 014 No_date   28: 05    60. 65  n/a      .000
15043>            [ L/ S=  438. /  . 460/ . 013]
15044>            [ Vmax=  3. 295: Dmax=  1. 330]
15045>            [ Di n=  1. 65: Dused=  1. 65]
15046> R0100: C00313- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15047>          CONTI NUOUS STANDHYD    1. 0 01: A6              1. 56      .339 No_date   28: 00    73. 40  . 829    .000
15048>            [ XI M=. 71: TI MP=. 71]
15049>            [ LOSS=  2 : CN=  75. 0]
15050>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15051>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  280. : MNI =. 013: SCI =     . 0]
15052>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15053>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15054> R0100: C00314- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15055>          ADD HYD                 1. 0 02: A5 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15056>                            +     1. 0 02: A6              1. 56      .339 No_date   28: 00    73. 40  n/a      .000
15057>                            SUM=  1. 0 01: A6T             1. 56      .339 No_date   28: 00    73. 40  n/a      .000
15058> R0100: C00315- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15059>          COMPUTE DUALHYD         1. 0 01: A6T             1. 56      .339 No_date   28: 00    73. 40  n/a      .000
15060>          Major System   /      1. 0 02: A6 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15061>          Minor System   \      1. 0 03: A6 - MN        1. 56      .339 No_date   28: 00    73. 40  n/a      .000
15062>          [MjSysSto=.0000E+00,  TotOrfVol=.0000E+00,  N-Orf=      0,  TotDurOrf=      0. hrs]
15063> R0100: C00316- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15064>          ADD HYD                 1. 0 02: A6 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15065>                            +     1. 0 02: 103- 104        73. 80    6. 014 No_date   28: 05    60. 65  n/a      .000
15066>                            +     1. 0 02: TODD_Mn         28. 64    3. 314 No_date   27: 54    68. 65  n/a      .000
15067>                            SUM=  1. 0 01: MH04           104. 00    9. 601 No_date   28: 03    63. 04  n/a      .000
15068> R0100: C00317- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15069>          SAVE HYD                1. 0 01: MH04            104. 00    9. 601 No_date   28: 03    63. 04  n/a      .000
15070>            fname : MH04. 0100
15071>            remark: Total Flows at MH04
15072> R0100: C00318- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15073>          CONTI NUOUS STANDHYD    1. 0 01: B2              12. 31    2. 012 No_date   28: 02    62. 88  . 710    .000
15074>            [ XI M=. 41: TI MP=. 54]
15075>            [ LOSS=  2 : CN=  75. 0]
15076>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15077>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  417. : MNI =. 013: SCI =     . 0]
15078>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15079>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15080> R0100: C00319- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15081>          COMPUTE DUALHYD         1. 0 01: B2              12. 31    2. 012 No_date   28: 02    62. 88  n/a      .000
15082>          Major System   /      1. 0 02: B2 - MI          .36      .820 No_date   28: 05    62. 88  n/a      .000
15083>          Minor System   \      1. 0 03: B2 - MN        11. 95    1. 029 No_date   27: 51    62. 91  n/a      .000
15084>          [MjSysSto=.5080E+03,  TotOrfVol=.2245E+03,  N-Orf=      1,  TotDurOrf=      0. hrs]
15085> R0100: C00320- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15086>          ROUTE PI PE             ->     1. 0 02: B2 - MN         11. 95    1. 029 No_date   27: 51    62. 91  n/a      .000
15087> *        [ RDT=  1. 00]  out <-         1. 0 01: 315- 333        11. 95    1. 029 No_date   28: 35    62. 91  n/a      .000
15088>            [ L/ S=  254. /  . 100/ . 013]
15089>            [ Vmax=  1. 220: Dmax=  . 838]
15090>            [ Di n=  1. 20: Dused=  1. 20]
15091> R0100: C00321- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15092>          CONTI NUOUS STANDHYD    1. 0 01: B3              5. 59      .930 No_date   28: 01    62. 88  . 710    .000
15093>            [ XI M=. 41: TI MP=. 54]
15094>            [ LOSS=  2 : CN=  75. 0]
15095>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15096>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  345. : MNI =. 013: SCI =     . 0]
15097>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15098>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15099> R0100: C00322- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15100>          COMPUTE DUALHYD         1. 0 01: B3              5. 59      .930 No_date   28: 01    62. 88  n/a      .000
15101>          Major System   /      1. 0 02: B3 - MI          .19      .402 No_date   28: 04    62. 88  n/a      .000
15102>          Minor System   \      1. 0 03: B3 - MN        5. 40      .459 No_date   27: 50    63. 05  n/a      .000
15103>          [MjSysSto=.2270E+03,  TotOrfVol=.1217E+03,  N-Orf=      1,  TotDurOrf=      0. hrs]
15104> R0100: C00323- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15105>          ADD HYD                 1. 0 02: B3 - MN         5. 40      .459 No_date   27: 50    63. 05  n/a      .000
15106>                            +     1. 0 02: 315- 333        11. 95    1. 029 No_date   28: 35    62. 91  n/a      .000
15107>                            SUM=  1. 0 01: MH33           17. 35    1. 488 No_date   28: 35    62. 96  n/a      .000
15108> R0100: C00324- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15109>          SAVE HYD                1. 0 01: MH33            17. 35    1. 488 No_date   28: 35    62. 96  n/a      .000
15110>            fname : MH33. 0100
15111>            remark: Total Flows at MH33
15112> R0100: C00325- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15113>          ROUTE PI PE             ->     1. 0 02: MH33            17. 35    1. 488 No_date   28: 35    62. 96  n/a      .000
15114> *        [ RDT=  1. 00]  out <-         1. 0 01: 333- 335        17. 35    1. 489 No_date   28: 27    62. 96  n/a      .000
15115>            [ L/ S=  251. /  . 100/ . 013]
15116>            [ Vmax=  1. 302: Dmax=  1. 057]
15117>            [ Di n=  1. 20: Dused=  1. 29]
15118> R0100: C00326- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15119>          ROUTE PI PE             ->     1. 0 02: 333- 335        17. 35    1. 489 No_date   28: 27    62. 96  n/a      .000
15120> *        [ RDT=  1. 00]  out <-         1. 0 01: 335- 338        17. 35    1. 481 No_date   28: 35    62. 96  n/a      .000
15121>            [ L/ S=  185. /  . 100/ . 013]
15122>            [ Vmax=  1. 302: Dmax=  1. 057]
15123>            [ Di n=  1. 20: Dused=  1. 29]
15124> R0100: C00327- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15125>          ROUTE PI PE             ->     1. 0 02: 335- 338        17. 35    1. 481 No_date   28: 35    62. 96  n/a      .000
15126>          [ RDT=  1. 00]  out <-         1. 0 01: 338- 340        17. 35    1. 480 No_date   28: 35    62. 96  n/a      .000
15127>            [ L/ S=  233. /  . 100/ . 013]
15128>            [ Vmax=  1. 330: Dmax=  . 981]
15129>            [ Di n=  1. 35: Dused=  1. 35]
15130> R0100: C00328- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15131>          CONTI NUOUS STANDHYD    1. 0 01: B4              7. 60    1. 252 No_date   28: 02    62. 88  . 710    .000
15132>            [ XI M=. 41: TI MP=. 54]
15133>            [ LOSS=  2 : CN=  75. 0]
15134>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15135>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  388. : MNI =. 013: SCI =     . 0]
15136>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15137>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15138> R0100: C00329- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15139>          COMPUTE DUALHYD         1. 0 01: B4              7. 60    1. 252 No_date   28: 02    62. 88  n/a      .000
15140>          Major System   /      1. 0 02: B4 - MI          .17      .411 No_date   28: 06    62. 88  n/a      .000
15141>          Minor System   \      1. 0 03: B4 - MN        7. 43      .655 No_date   27: 51    62. 90  n/a      .000
15142>          [MjSysSto=.3230E+03,  TotOrfVol=.1079E+03,  N-Orf=      1,  TotDurOrf=      0. hrs]
15143> R0100: C00330- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15144>          ADD HYD                 1. 0 02: 338- 340        17. 35    1. 480 No_date   28: 35    62. 96  n/a      .000
15145>                            +     1. 0 02: B4 - MN         7. 43      .655 No_date   27: 51    62. 90  n/a      .000
15146>                            SUM=  1. 0 01: MH40           24. 78    2. 126 No_date   28: 34    62. 94  n/a      .000
15147> R0100: C00331- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15148>          SAVE HYD                1. 0 01: MH40            24. 78    2. 126 No_date   28: 34    62. 94  n/a      .000
15149>            fname : MH40. 0100
15150>            remark: Total Flows at MH40
15151> R0100: C00332- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15152>          ROUTE PI PE             ->     1. 0 02: MH40            24. 78    2. 126 No_date   28: 34    62. 94  n/a      .000
15153>          [ RDT=  1. 00]  out <-         1. 0 01: 340- 104        24. 78    2. 116 No_date   28: 21    62. 94  n/a      .000
15154>            [ L/ S=  240. /  . 150/ . 013]
15155>            [ Vmax=  1. 726: Dmax=  . 923]
15156>            [ Di n=  1. 65: Dused=  1. 65]
15157> R0100: C00333- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15158>          ADD HYD                 1. 0 02: 340- 104        24. 78    2. 116 No_date   28: 21    62. 94  n/a      .000
15159>                            +     1. 0 02: MH04            104. 00    9. 601 No_date   28: 03    63. 04  n/a      .000
15160>                            SUM=  1. 0 01: MH04T           128. 78   11. 560 No_date   28: 04    63. 02  n/a      .000
15161> R0100: C00334- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15162>          ROUTE PI PE             ->     1. 0 02: MH04T           128. 78   11. 560 No_date   28: 04    63. 02  n/a      .000
15163> *        [ RDT=  1. 00]  out <-         1. 0 01: 104- 105        128. 78   11. 359 No_date   28: 10    63. 02  n/a      .000
15164>            [ L/ S=  380. /  . 100/ . 013]
15165>            [ Vmax=  2. 115: Dmax=  2. 014]
15166>            [ HGTH=  2. 37: WDTH=  2. 71]
15167> R0100: C00335- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15168>          CONTI NUOUS STANDHYD    1. 0 01: B5              2. 20      .437 No_date   28: 00    66. 83  . 755    .000
15169>            [ XI M=. 57: TI MP=. 57]
15170>            [ LOSS=  2 : CN=  75. 0]
15171>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15172>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  187. : MNI =. 013: SCI =     . 0]
15173>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15174>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15175> R0100: C00336- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15176>          COMPUTE DUALHYD         1. 0 01: B5              2. 20      .437 No_date   28: 00    66. 83  n/a      .000
15177>          Major System   /      1. 0 02: B5 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15178>          Minor System   \      1. 0 03: B5 - MN        2. 20      .260 No_date   27: 51    66. 87  n/a      .000
15179>          [MjSysSto=.9053E+02,  TotOrfVol=.0000E+00,  N-Orf=      0,  TotDurOrf=      0. hrs]
15180> R0100: C00337- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15181>          CONTI NUOUS STANDHYD    1. 0 01: A8              . 96      .219 No_date   28: 00    73. 40  . 829    .000
15182>            [ XI M=. 71: TI MP=. 71]
15183>            [ LOSS=  2 : CN=  75. 0]
15184>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15185>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  186. : MNI =. 013: SCI =     . 0]
15186>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15187>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15188> R0100: C00338- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15189>          ADD HYD                 1. 0 02: A6 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15190>                            +     1. 0 02: A8              . 96      .219 No_date   28: 00    73. 40  n/a      .000
15191>                            SUM=  1. 0 01: A8T             . 96      .219 No_date   28: 00    73. 40  n/a      .000
15192> R0100: C00339- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15193>          COMPUTE DUALHYD         1. 0 01: A8T             . 96      .219 No_date   28: 00    73. 40  n/a      .000
15194>          Major System   /      1. 0 02: A8 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15195>          Minor System   \      1. 0 03: A8 - MN        . 96      .219 No_date   28: 00    73. 40  n/a      .000
15196>          [MjSysSto=.0000E+00,  TotOrfVol=.0000E+00,  N-Orf=      0,  TotDurOrf=      0. hrs]
15197> R0100: C00340- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15198>          ADD HYD                 1. 0 02: B4 - MI         7. 43      .655 No_date   27: 51    62. 90  n/a      .000
15199>                            +     1. 0 02: B5 - MN         2. 20      .260 No_date   27: 51    66. 87  n/a      .000
15200>                            +     1. 0 02: A8 - MN          .96      .219 No_date   28: 00    73. 40  n/a      .000
15201>                            +     1. 0 02: TODD_MN3         .01      .009 No_date   28: 00    66. 78  n/a      .000
15202>                            SUM=  1. 0 01: MH05           131. 94   11. 688 No_date   28: 10    63. 16  n/a      .000
15203> R0100: C00341- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15204>          SAVE HYD                1. 0 01: MH05            131. 94   11. 688 No_date   28: 10    63. 16  n/a      .000
15205>            fname : MH05. 0100
15206>            remark: Total Flows at MH05
15207> R0100: C00342- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15208> *        DI VERT HYD             ->     1. 0 01: A8 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15209>                            diverted <=   1. 0 02: A8 - MJ - JR      .00      .000 No_date    0: 00      .00  n/a      .000
15210>                            diverted <=   1. 0 03: A8 - MI - B6      .00      .000 No_date    0: 00      .00  n/a      .000
15211> R0100: C00343- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15212>          DI VERT HYD             ->     1. 0 01: MH05            131. 94   11. 688 No_date   28: 10    63. 16  n/a      .000
15213>                            diverted <=   1. 0 02: MH05- JR        36. 57    8. 679 No_date   28: 10    63. 16  n/a      .000
15214>                            diverted <=   1. 0 03: MH05- B6        95. 37    3. 009 No_date   28: 10    63. 16  n/a      .000
15215> R0100: C00344- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15216>          CONTI NUOUS STANDHYD    1. 0 01: B7              7. 19    1. 283 No_date   28: 01    62. 88  . 710    .000
15217>            [ XI M=. 41: TI MP=. 54]
15218>            [ LOSS=  2 : CN=  75. 0]
15219>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15220>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  211. : MNI =. 013: SCI =     . 0]
15221>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15222>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15223> R0100: C00345- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15224>          ADD HYD                 1. 0 02: B4 - MI          .17      .411 No_date   28: 06    62. 88  n/a      .000
15225>                            +     1. 0 02: B7              7. 19    1. 283 No_date   28: 01    62. 88  n/a      .000
15226>                            SUM=  1. 0 01: B7 - B4MI       7. 36    1. 300 No_date   28: 06    62. 88  n/a      .000
15227> R0100: C00346- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15228>          COMPUTE DUALHYD         1. 0 01: B7 - B4MI       7. 36    1. 300 No_date   28: 06    62. 88  n/a      .000
15229>          Major System   /      1. 0 02: B7R- MI          .36      .671 No_date   28: 06    62. 88  n/a      .000
15230>          Minor System   \      1. 0 03: B7R- MN        7. 00      .629 No_date   28: 31    62. 97  n/a      .000
15231>          [MjSysSto=.3110E+03,  TotOrfVol=.2280E+03,  N-Orf=      1,  TotDurOrf=      0. hrs]
15232> R0100: C00347- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15233>          ROUTE PI PE             ->     1. 0 02: B7R- MN         7. 00      .629 No_date   28: 31    62. 97  n/a      .000
15234> *        [ RDT=  1. 00]  out <-         1. 0 01: 360- 106A       7. 00      .629 No_date   28: 31    62. 97  n/a      .000
15235>            [ L/ S=  n=  167. /  . 100/ . 013]
15236>            [ Vmax=  1. 089: Dmax=  1. 065]
15237>            [ Di n=  1. 05: Dused=  1. 05]
15238> R0100: C00348- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15239>          CONTI NUOUS STANDHYD    1. 0 01: B6              3. 29      .602 No_date   28: 00    62. 88  . 710    .000
15240>            [ XI M=. 41: TI MP=. 54]
15241>            [ LOSS=  2 : CN=  75. 0]
15242>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15243>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  148. : MNI =. 013: SCI =     . 0]
15244>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15245>            [ SMN=  33. 81:  SMX=  225. 43:  SK=  . 010]
15246> R0100: C00349- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15247>          COMPUTE DUALHYD         1. 0 01: B6              3. 29      .602 No_date   28: 00    62. 88  n/a      .000
15248>          Major System   /      1. 0 02: B6 - MI          .00      .000 No_date    0: 00      .00  n/a      .000
15249>          Minor System   \      1. 0 03: B6 - MN        3. 29      .064 No_date   27: 33    62. 92  n/a      .000
15250>          [MjSysSto=.7353E+03,  TotOrfVol=.0000E+00,  N-Orf=      0,  TotDurOrf=      0. hrs]
15251> R0100: C00350- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15252>          CONTI NUOUS STANDHYD    1. 0 01: EX- LAND        32. 50    5. 231 No_date   28: 02    62. 70  . 708    .000
15253>            [ XI M=. 50: TI MP=. 50]
15254>            [ LOSS=  2 : CN=  74. 0]
15255>            [ P ervious       area:  I Aper=  4. 67: SLPP=1. 00: LGI P=    40. : MNP=. 250: SCP=     . 0]
15256>            [ I mpervious     area:  I Aimp=  1. 57: SLPI =1. 00: LGI I=  465. : MNI =. 013: SCI =     . 0]
15257>            [ I aREC I mp=   4. 00:  I aREC per=    4. 00]
15258>            [ SMN=  36. 67:  SMX=  244. 49:  SK=  . 010]
15259> R0100: C00351- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15260>          COMPUTE DUALHYD         1. 0 01: EX- LAND        32. 50    5. 231 No_date   28: 02    62. 70  n/a      .000
15261>          Major System   /      1. 0 02: EX- LAND- MI     1. 77    2. 874 No_date   28: 03    62. 70  n/a      .000
15262>          Minor System   \      1. 0 03: EX- LAND- MN    30. 73    2. 275 No_date   27: 48    62. 82  n/a      .000
15263>          [MjSysSto=.1365E+04,  TotOrfVol=.1111E+04,  N-Orf=      1,  TotDurOrf=      0. hrs]
15264> R0100: C00352- ---------- DTmi n-I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C. - ---- DWFcms
15265>          ADD HYD                 1. 0 02: B7R- MI          .36      .671 No_date   28: 06    62. 88  n/a      .000
15266>                            +     1. 0 02: EX- LAND- MI     1. 77    2. 874 No_date   28: 03    62. 70  n/a      .000
15267>                            +     1. 0 02: B5 - M
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15335>       Major System   /       1.0 02: AI0-MI          .09       .218 No_date   28:05   59.73  n/a      .000
15336>       Minor System   \       1.0 03: AI0-MN         4.05       .310 No_date   27:48   60.02  n/a      .000
15337>       [MjSysSto=.2280E+03,  Tot Or f Vol =.5334E+02,  N-Or f=     1,  Tot Dur Or f=     0. hrs]
15338> R0100: C00365-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15339>       CONTINUOUS STANDHYD      1.0 01: AI1           10.61     1.941 No_date   28:01   67.38 .761      .000
15340>       [XIM=.53: TIMP=.62]
15341>       [LOSS= 2 : CN= 75.0]
15342>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
15343>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=     .0]
15344>       [IaRECImp=   4. 00: IaRECper=     4. 00]
15345>       [SMN= 33. 81:  SMAX=225. 43:  SK=  . 010]
15346> R0100: C00366-------------DTmin-1 D: MH07----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15347>       COMPUTE DUALHYD          1.0 01: AI1           10.61     1.941 No_date   28:01   67.38  n/a      .000
15348>       Major System   /       1.0 02: AI1-MI          .16       .564 No_date   28:06   67.38  n/a      .000
15349>       Minor System   \       1.0 03: AI1-MN         10.45      .993 No_date   28:34   67.69  n/a      .000
15350>       [MjSysSto=.5560E+03,  Tot Or f Vol =.1090E+03,  N-Or f=     1,  Tot Dur Or f=     0. hrs]
15351> R0100: C00367-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15352>       ADD HYD                  1.0 02: 106-107       110.24     4.179 No_date   28:02   63.36  n/a      .000
15353>                          +     1.0 02: AI0-MN          4.05      .310 No_date   27:48   60.02  n/a      .000
15354>                          +     1.0 02: AI1-MN         10.45      .993 No_date   28:34   67.69  n/a      .000
15355>                    SUM=        1.0 01: MH07          124.74     5.482 No_date   28:02   63.62  n/a      .000
15356> R0100: C00368-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15357>       SAVE HYD                 1.0 01: MH07          124.74     5.482 No_date   28:02   63.62  n/a      .000
15358>       fname: MH07. 0100
15359>       remark: Total Flows at MH07
15360> R0100: C00369-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15361>       ROUTE PIPE               ->     1.0 02: MH07          124.74     5.482 No_date   28:02   63.62  n/a      .000
15362> *     [RDT= 1. 00] out <-      1.0 01: 107-119       124.74     5.468 No_date   28:04   63.62  n/a      .000
15363>       [L/S/ n=  114. /  . 120/. 013]
15364>       [Vmax= 1. 932: Dmax= 1. 665]
15365>       [Dis n= 1. 80: Dused= 2. 03]
15366> R0100: C00370-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15367>       ROUTE PIPE               ->     1.0 02: 107-119       124.74     5.468 No_date   28:04   63.62  n/a      .000
15368> *     [RDT= 1. 00] out <-      1.0 01: 119-108       124.74     5.480 No_date   28:05   63.62  n/a      .000
15369>       [L/S/ n=   66. /  . 120/. 013]
15370>       [Vmax= 1. 930: Dmax= 1. 664]
15371>       [Dis n= 1. 80: Dused= 2. 03]
15372> R0100: C00371-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15373>       CONTINUOUS STANDHYD      1.0 01: AI2           12.29     2.213 No_date   28:01   62.88 .710      .000
15374>       [XIM=. 41: TIMP=. 54]
15375>       [LOSS= 2 : CN= 75.0]
15376>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
15377>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=     .0]
15378>       [IaRECImp=   4. 00: IaRECper=     4. 00]
15379>       [SMN= 33. 81:  SMAX=225. 43:  SK=  . 010]
15380> R0100: C00372-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15381>       COMPUTE DUALHYD          1.0 01: AI2           12.29     2.213 No_date   28:01   62.88  n/a      .000
15382>       Major System   /       1.0 02: AI2-MI          .23       .599 No_date   28:05   62.88  n/a      .000
15383>       Minor System   \       1.0 03: AI2-MN         12.06     1.029 No_date   27:48   63.11  n/a      .000
15384>       [MjSysSto=.6720E+03,  Tot Or f Vol =.1477E+03,  N-Or f=     1,  Tot Dur Or f=     0. hrs]
15385> R0100: C00373-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15386>       CONTINUOUS STANDHYD      1.0 01: AI3            2.59      .540 No_date   28:01   73.40 .829      .000
15387>       [XIM=. 71: TIMP=. 71]
15388>       [LOSS= 2 : CN= 75.0]
15389>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
15390>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=     .0]
15391>       [IaRECImp=   4. 00: IaRECper=     4. 00]
15392>       [SMN= 33. 81:  SMAX=225. 43:  SK=  . 010]
15393> R0100: C00374-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15394>       COMPUTE DUALHYD          1.0 01: AI3            2.59      .540 No_date   28:01   73.40  n/a      .000
15395>       Major System   /       1.0 02: AI3-MI          .00       .000 No_date   0:00    .00    n/a      .000
15396>       Minor System   \       1.0 03: AI3-MN         2.59      .540 No_date   28:01   73.40  n/a      .000
15397> R0100: C00375-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15398>       CONTINUOUS STANDHYD      1.0 01: Pond-Block     2.94      .490 No_date   28:00   59.56 .673      .000
15399>       [XIM=. 41: TIMP=. 41]
15400>       [LOSS= 2 : CN= 75.0]
15401>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
15402>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=     .0]
15403>       [IaRECImp=   4. 00: IaRECper=     4. 00]
15404>       [SMN= 33. 81:  SMAX=225. 43:  SK=  . 010]
15405> R0100: C00376-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15406>       ADD HYD                  1.0 02: 119-108       124.74     5.480 No_date   28:05   63.62  n/a      .000
15407>                          +     1.0 02: AI3-MN          2.59      .540 No_date   28:01   73.40  n/a      .000
15408>                          +     1.0 02: AI2-MN         12.06     1.029 No_date   27:48   63.11  n/a      .000
15409>                    SUM=        1.0 01: MH08          139.38     6.996 No_date   28:03   63.75  n/a      .000
15410> R0100: C00377-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15411>       SAVE HYD                 1.0 01: MH08          139.38     6.996 No_date   28:03   63.75  n/a      .000
15412>       fname: MH08. 0100
15413>       remark: Total Flows at MH08
15414> R0100: C00378-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15415>       ROUTE PIPE               ->     1.0 02: MH08          139.38     6.996 No_date   28:03   63.75  n/a      .000
15416> *     [RDT= 1. 00] out <-      1.0 01: 108-116       139.38     6.987 No_date   28:04   63.75  n/a      .000
15417>       [L/S/ n=   77. /  . 130/. 013]
15418>       [Vmax= 2. 116: Dmax= 1. 798]
15419>       [Dis n= 1. 80: Dused= 2. 19]
15420> R0100: C00379-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15421>       ROUTE PIPE               ->     1.0 02: 108-116       139.38     6.987 No_date   28:04   63.75  n/a      .000
15422> *     [RDT= 1. 00] out <-      1.0 01: 116-corrig    139.38     6.949 No_date   28:06   63.75  n/a      .000
15423>       [L/S/ n=   80. /  . 130/. 013]
15424>       [Vmax= 2. 115: Dmax= 1. 797]
15425>       [Dis n= 1. 80: Dused= 2. 19]
15426> R0100: C00380-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15427>       ADD HYD                  1.0 02: 116-corrig    139.38     6.949 No_date   28:06   63.75  n/a      .000
15428>                          +     1.0 02: Pond-Block      2.94      .490 No_date   28:00   59.56  n/a      .000
15429>                    SUM=        1.0 01: Corrigan      142.32     7.300 No_date   28:04   63.67  n/a      .000
15430> R0100: C00381-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15431>       SAVE HYD                 1.0 01: Corrigan      142.32     7.300 No_date   28:04   63.67  n/a      .000
15432>       fname: Corrigan. 0100
15433>       remark: HYD_COMMENT=["Total Flows at Corrigan Pond]
15434> R0100: C00382-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15435>       ROUTE RESERVOIR          ->     1.0 02: Corrigan      142.32     7.300 No_date   28:04   63.67  n/a      .000
15436>                          out <=      1.0 01: Co-P          142.32     6.658 No_date   28:15   63.67  n/a      .000
15437>                    overflow <=       1.0 03: Co-P_OVF        .00      .000 No_date   0:00    .00    n/a      .000
15438>       [MkStoRed=. 1044E+01   m3,  Tot Or f Vol =. 0000E+00   m3,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
15439> R0100: C00383-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15440>       ADD HYD                  1.0 02: Co-P_OVF        .00      .000 No_date   0:00    .00    n/a      .000
15441>                          +     1.0 02: Co-P          142.32     6.658 No_date   28:15   63.67  n/a      .000
15442>                          +     1.0 02: N_TO        54840.70   147.653 No_date   36:19   39.31  n/a      .000
15443>                          +     1.0 02: MH05-JR        36.57     8.679 No_date   28:10   63.16  n/a      .000
15444>                          +     1.0 02: A8-MI-JR        .00      .000 No_date   0:00    .00    n/a      .000
15445>                          +     1.0 02: A9-MI           .00      .000 No_date   0:00    .00    n/a      .000
15446>                          +     1.0 02: A10-MI          .09      .218 No_date   28:05   59.73  n/a      .000
15447>                          +     1.0 02: A11-MI          .16      .564 No_date   28:06   67.38  n/a      .000
15448>                          +     1.0 02: A12-MI          .23      .599 No_date   28:05   62.88  n/a      .000
15449>                          +     1.0 02: A13-MI          .00      .000 No_date   0:00    .00    n/a      .000
15450>                    SUM=        1.0 01: corrig        55020.08   148.408 No_date   36:18   39.39  n/a      .000
15451> R0100: C00384-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15452>       SAVE HYD                 1.0 01: corrig        55020.08   148.408 No_date   36:18   39.39  n/a      .000
15453>       fname: corrig. 0100
15454>       remark: Total Flows at Corrigan Pond
15455> ********************************************************************************
15456> #    Corrigan Pond 1
15457> #    - Rating curve obtained from Barrhaven South MSS modeling
15458> #    - Tributary Drainage Area to MSS Pond 1 = 145 ha
15459> ********************************************************************************
15460> #
15461> # Hydrograph from Corrigan Drain routed to Jockvale Road
15462> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
15463> #
15464> R0100: C00385-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15465>       ROUTE CHANNEL            ->     1.0 02: corrig        55020.08   148.408 No_date   36:18   39.39  n/a      .000
15466>       [RDT= 1. 00] out <-      1.0 01: N_M           55020.08   148.389 No_date   36:21   39.39  n/a      .000
15467>       [L/S/ n=  580. /  . 445/. 045]
15468>       [Vmax= 2. 187: Dmax= 2. 147]
15469> ********************************************************************************
15470> #    Catchment MLLS
15471> #    - To SWM Facility north of the Jock
15472> #    - Primarily residental development
15473> ********************************************************************************
15474> R0100: C00386-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15475>       CONTINUOUS STANDHYD      1.0 01: MLLS          175.99    20.390 No_date   28:06   56.87 .642      .000
15476>       [XIM=. 38: TIMP=. 38]
15477>       [LOSS= 2 : CN= 74.0]
15478>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
15479>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=1118. : MNI=. 013: SCI=     .0]
15480>       [IaRECImp=   4. 00: IaRECper=     4. 00]
15481>       [SMN= 36. 67:  SMAX=244. 49:  SK=  . 010]
15482> ********************************************************************************
15483> #    Chapman Mills SWM Pond
15484> #    - Rating curve obtained from CCL hydraulic modeling
15485> ********************************************************************************
15486> R0100: C00387-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15487>       ROUTE RESERVOIR          ->     1.0 02: MLLS          175.99    20.390 No_date   28:06   56.87  n/a      .000
15488>                          out <=      1.0 01: MLL_P         146.22     4.050 No_date   28:08   56.87  n/a      .000
15489>                    overflow <=       1.0 03: ML-OV          29.77    16.228 No_date   28:08   56.87  n/a      .000
15490>       [MkStoRed=. 2310E+01   m3,  Tot Or f Vol =. 1693E+01   m3,  N-Or f=     2,  Tot Dur Or f=     1. hrs]
15491> R0100: C00388-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15492>       ADD HYD                  1.0 02: N_M           55020.08   148.389 No_date   36:21   39.39  n/a      .000
15493>                          +     1.0 02: ML-OV          29.77    16.228 No_date   28:08   56.87  n/a      .000
15494>                          +     1.0 02: MLL_P         146.22     4.050 No_date   28:08   56.87  n/a      .000
15495>                    SUM=        1.0 01: SN_MI         55196.07   149.100 No_date   36:20   39.44  n/a      .000
15496> R0100: C00389-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15497>       SAVE HYD                 1.0 01: SN_MI         55196.07   149.100 No_date   36:20   39.44  n/a      .000
15498>       fname: SN_MI. 0100
15499>       remark: Total Flows at Jockvale Road
15500> #
15501> # Hydrograph from Jockvale Road routed to Heart's Desire
15502> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
15503> #
15504> R0100: C00390-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15505>       ROUTE CHANNEL            ->     1.0 02: SN_MI         55196.07   149.100 No_date   36:20   39.44  n/a      .000
15506>       [RDT= 1. 00] out <-      1.0 01: N_DE          55196.07   148.761 No_date   36:32   39.44  n/a      .000
15507>       [L/S/ n= 1962. /  . 223/. 045]
15508>       [Vmax= 1. 650: Dmax= 2. 683]
15509> ********************************************************************************
15510> #    Catchment DESIRE
15511> #    - To Jock River (north of the Jock)
15512> #    - Rural estate subdivision (Heart's Desire Community)
15513> ********************************************************************************
15514> R0100: C00391-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15515>       CONTINUOUS STANDHYD      1.0 01: DESIRE         23.78     3.004 No_date   28:03   53.11 .600      .000
15516>       [XIM=. 25: TIMP=. 25]
15517>       [LOSS= 2 : CN= 77.0]
15518>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
15519>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=     .0]
15520>       [IaRECImp=   4. 00: IaRECper=     4. 00]
15521>       [SMN= 31. 15:  SMAX=207. 66:  SK=  . 010]
15522> ********************************************************************************
15523> #    Catchment JOCKVA
15524> #    - To Jockvale SWM Facility
15525> #    - Residential development & golf course
15526> #    - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
15527> #      JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
15528> ********************************************************************************
15529> R0100: C00392-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15530>       CONTINUOUS STANDHYD      1.0 01: JOCKVA        225.13    28.623 No_date   28:07   62.70 .708      .000
15531>       [XIM=. 50: TIMP=. 50]
15532>       [LOSS= 2 : CN= 74.0]
15533>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
15534>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=     .0]
15535>       [IaRECImp=   4. 00: IaRECper=     4. 00]
15536>       [SMN= 36. 67:  SMAX=244. 49:  SK=  . 010]
15537> R0100: C00393-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15538>       ADD HYD                  1.0 02: EX-LAND-MN     30.73     2.275 No_date   27:48   62.82  n/a      .000
15539>                          +     1.0 02: JOCKVA        225.13    28.623 No_date   28:07   62.70  n/a      .000
15540>                          +     1.0 02: B2-MI           .36       .820 No_date   28:05   62.88  n/a      .000
15541>                          +     1.0 02: B3-MI           .19       .402 No_date   28:04   62.88  n/a      .000
15542>                    SUM=        1.0 01: JOCKVA-TO     256.41    31.850 No_date   28:06   62.71  n/a      .000
15543> R0100: C00394-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15544>       SAVE HYD                 1.0 01: JOCKVA-TO     256.41    31.850 No_date   28:06   62.71  n/a      .000
15545>       fname: JOCKVA-TO. 0100
15546>       remark: Total Flows at KB first pond
15547> ********************************************************************************
15548> #    Jockvale SWM Facility
15549> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
15550> ********************************************************************************
15551> R0100: C00395-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15552>       ROUTE RESERVOIR          ->     1.0 02: JOCKVA-TO     256.41    31.850 No_date   28:06   62.71  n/a      .000
15553>                          out <=      1.0 01: JOCK_P        256.41    12.850 No_date   28:35   62.71  n/a      .000
15554>                    overflow <=       1.0 03: JOCK-OVF        .00      .000 No_date   0:00    .00    n/a      .000
15555>       [MkStoRed=. 6430E+01   m3,  Tot Or f Vol =. 0000E+00   m3,  N-Or f=     0,  Tot Dur Or f=     0. hrs]
15556> R0100: C00396-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15557>       ADD HYD                  1.0 02: N_DE          55196.07   148.761 No_date   36:32   39.44  n/a      .000
15558>                          +     1.0 02: DESIRE         23.78     3.004 No_date   28:03   53.11  n/a      .000
15559>                          +     1.0 02: JO-OVF          .00       .000 No_date   0:00    .00    n/a      .000
15560>                          +     1.0 02: JOCK_P        256.41    12.850 No_date   28:35   62.71  n/a      .000
15561>                    SUM=        1.0 01: SN_DE         55476.26   149.819 No_date   36:30   39.56  n/a      .000
15562> R0100: C00397-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15563>       SAVE HYD                 1.0 01: SN_DE         55476.26   149.819 No_date   36:30   39.56  n/a      .000
15564>       fname: SN_DE. 0100
15565>       remark: Total Flows at Heart's Desire
15566> #
15567> # Hydrograph from Heart's Desire routed to Rideau River
15568> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
15569> #
15570> R0100: C00398-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15571>       ROUTE CHANNEL            ->     1.0 02: SN_DE         55476.26   149.819 No_date   36:30   39.56  n/a      .000
15572>       [RDT= 1. 00] out <-      1.0 01: N_NI          55476.26   149.806 No_date   36:33   39.56  n/a      .000
15573>       [L/S/ n=  563. /  . 967/. 045]
15574>       [Vmax= 2. 234: Dmax= 1. 340]
15575> ********************************************************************************
15576> #    Catchment S-2
15577> #    - To Jock River (north and south)
15578> #    - Undeveloped floodplain and river
15579> ********************************************************************************
15580> R0100: C00399-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15581>       CONTINUOUS NASHPR        1.0 01: S-2           102.94     5.685 No_date   28:20   40.95 .462      .000
15582>       [CN= 72. 0:  N= 3. 00:  Tp=  . 40]
15583>       [IaREC= 4. 00:  SMN= 39. 75:  SMAX=264. 99:  SK=  . 010]
15584>       [InterEventTime=  12. 00]
15585> R0100: C00400-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15586>       ADD HYD                  1.0 02: N_NI          55476.26   149.806 No_date   36:33   39.56  n/a      .000
15587>                          +     1.0 02: S-2           102.94     5.685 No_date   28:20   40.95  n/a      .000
15588>                    SUM=        1.0 01: SN_NI         55579.20   150.120 No_date   36:32   39.56  n/a      .000
15589> R0100: C00401-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C. ---DWFcms
15590>       SAVE HYD                 1.0 01: SN_NI         55579.20   150.120 No_date   36:32   39.56  n/a      .000
15591>       fname: SN_NI. 0100
15592>       remark: Total Flows at Rideau River
15593> ################################################################################
15594> R0100: C00002-------------------------------------------------------------------------------------------------
15595>       FINISH
15596> -------------------------------------------------------------------------------------------------------------
15597> *************************************************************************************
15598>       WARNINGS / ERRORS / NOTES
15599>       -------------------------
15600> R0002: C00281  ROUTE RESERVOIR
15601> *** WARNING: Inflow peak was not reduced! Check OUTFLOW STORAGE table or reduce DT.
15602> R0002: C00303  ROUTE PIPE       ->
15603> *** WARNING: New pipe size used for routing.
15604> R0002: C00309  ROUTE PIPE       ->
15605> *** WARNING: New pipe size used for routing.
15606> R0002: C00342  DIVERT HYD       ->
15607> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15608> R0002: C00362  ROUTE PIPE       ->
15609> *** WARNING: New pipe size used for routing.
15610> R0002: C00369  ROUTE PIPE       ->
15611> *** WARNING: New pipe size used for routing.
15612> R0002: C00370  ROUTE PIPE       ->
15613> *** WARNING: New pipe size used for routing.
15614> R0002: C00378  ROUTE PIPE       ->
15615> *** WARNING: New pipe size used for routing.
15616> R0002: C00379  ROUTE PIPE       ->
15617> *** WARNING: New pipe size used for routing.
15618> R0005: C00281  ROUTE RESERVOIR
15619> *** WARNING: Inflow peak was not reduced! Check OUTFLOW STORAGE table or reduce DT.
15620> R0005: C00303  ROUTE PIPE       ->
15621> *** WARNING: New pipe size used for routing.
15622> R0005: C00309  ROUTE PIPE       ->
15623> *** WARNING: New pipe size used for routing.
15624> R0005: C00325  ROUTE PIPE       ->
15625> *** WARNING: New pipe size used for routing.
15626> R0005: C00326  ROUTE PIPE       ->
15627> *** WARNING: New pipe size used for routing.
15628> R0005: C00334  ROUTE PIPE       ->
15629> *** WARNING: New pipe size used for routing.
15630> R0005: C00342  DIVERT HYD       ->
15631> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15632> R0005: C00357  ROUTE PIPE       ->
15633> *** WARNING: New pipe size used for routing.
15634> R0005: C00362  ROUTE PIPE       ->
15635> *** WARNING: New pipe size used for routing.
15636> R0005: C00369  ROUTE PIPE       ->
15637> *** WARNING: New pipe size used for routing.
15638> R0005: C00370  ROUTE PIPE       ->
15639> *** WARNING: New pipe size used for routing.
15640> R0005: C00378  ROUTE PIPE       ->
15641> *** WARNING: New pipe size used for routing.
15642> R0005: C00379  ROUTE PIPE       ->
15643> *** WARNING: New pipe size used for routing.
15644> R0010: C00303  ROUTE PIPE       ->
15645> *** WARNING: New pipe size used for routing.
15646> R0010: C00309  ROUTE PIPE       ->
15647> *** WARNING: New pipe size used for routing.
15648> R0010: C00325  ROUTE PIPE       ->
15649> *** WARNING: New pipe size used for routing.
15650> R0010: C00326  ROUTE PIPE       ->
15651> *** WARNING: New pipe size used for routing.
15652> R0010: C00334  ROUTE PIPE       ->
15653> *** WARNING: New pipe size used for routing.
15654> R0010: C00342  DIVERT HYD       ->
15655> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15656> R0010: C00357  ROUTE PIPE       ->
15657> *** WARNING: New pipe size used for routing.
15658> R0010: C00362  ROUTE PIPE       ->
15659> *** WARNING: New pipe size used for routing.
15660> R0010: C00369  ROUTE PIPE       ->
15661> *** WARNING: New pipe size used for routing.
15662> R0010: C00370  ROUTE PIPE       ->
15663> *** WARNING: New pipe size used for routing.
15664> R0010: C00378  ROUTE PIPE       ->
15665> *** WARNING: New pipe size used for routing.
15666> R0010: C00379  ROUTE PIPE       ->
15667> *** WARNING: New pipe size used for routing.
15668> R0025: C00303  ROUTE PIPE       ->
15669> *** WARNING: New pipe size used for routing.
15670> R0025: C00309  ROUTE PIPE       ->
15671> *** WARNING: New pipe size used for routing.
15672> R0025: C00325  ROUTE PIPE       ->
15673> *** WARNING: New pipe size used for routing.
15674> R0025: C00326  ROUTE PIPE       ->
15675> *** WARNING: New pipe size used for routing.
15676> R0025: C00334  ROUTE PIPE       ->
15677> *** WARNING: New pipe size used for routing.
15678> R0025: C00342  DIVERT HYD       ->
15679> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15680> R0025: C00357  ROUTE PIPE       ->
15681> *** WARNING: New pipe size used for routing.
15682> R0025: C00362  ROUTE PIPE       ->
15683> *** WARNING: New pipe size used for routing.
15684> R0025: C00369  ROUTE PIPE       ->
15685> *** WARNING: New pipe size used for routing.
15686> R0025: C00370  ROUTE PIPE       ->
15687> *** WARNING: New pipe size used for routing.
15688> R0025: C00378  ROUTE PIPE       ->
15689> *** WARNING: New pipe size used for routing.
15690> R0025: C00379  ROUTE PIPE       ->
15691> *** WARNING: New pipe size used for routing.
15692> R0050: C00303  ROUTE PIPE       ->
15693> *** WARNING: New pipe size used for routing.
15694> R0050: C00309  ROUTE PIPE       ->
15695> *** WARNING: New pipe size used for routing.
15696> R0050: C00325  ROUTE PIPE       ->
15697> *** WARNING: New pipe size used for routing.
15698> R0050: C00326  ROUTE PIPE       ->
15699> *** WARNING: New pipe size used for routing.
15700> R0050: C00334  ROUTE PIPE       ->
15701> *** WARNING: New pipe size used for routing.
15702> R0050: C00342  DIVERT HYD       ->
15703> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15704> R0050: C00357  ROUTE PIPE       ->
15705> *** WARNING: New pipe size used for routing.
15706> R0050: C00362  ROUTE PIPE       ->
15707> *** WARNING: New pipe size used for routing.
15708> R0050: C00369  ROUTE PIPE       ->
```

```
15709> *** WARNING: New pipe size used for routing.
15710> R0050:C00370   ROUTE PIPE       ->
15711> *** WARNING: New pipe size used for routing.
15712> R0050:C00378   ROUTE PIPE       ->
15713> *** WARNING: New pipe size used for routing.
15714> R0050:C00379   ROUTE PIPE       ->
15715> *** WARNING: New pipe size used for routing.
15716> R0100:C00303   ROUTE PIPE       ->
15717> *** WARNING: New pipe size used for routing.
15718> R0100:C00309   ROUTE PIPE       ->
15719> *** WARNING: New pipe size used for routing.
15720> R0100:C00325   ROUTE PIPE       ->
15721> *** WARNING: New pipe size used for routing.
15722> R0100:C00326   ROUTE PIPE       ->
15723> *** WARNING: New pipe size used for routing.
15724> R0100:C00334   ROUTE PIPE       ->
15725> *** WARNING: New pipe size used for routing.
15726> R0100:C00342   DIVERT HYD       ->
15727> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15728> R0100:C00357   ROUTE PIPE       ->
15729> *** WARNING: New pipe size used for routing.
15730> R0100:C00362   ROUTE PIPE       ->
15731> *** WARNING: New pipe size used for routing.
15732> R0100:C00369   ROUTE PIPE       ->
15733> *** WARNING: New pipe size used for routing.
15734> R0100:C00370   ROUTE PIPE       ->
15735> *** WARNING: New pipe size used for routing.
15736> R0100:C00378   ROUTE PIPE       ->
15737> *** WARNING: New pipe size used for routing.
15738> R0100:C00379   ROUTE PIPE       ->
15739> *** WARNING: New pipe size used for routing.
15740>   Simulation ended on 2021-03-04     at 11:53:36
15741> ================================================================================
15742>
15743>
```

Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

Attachment D

Model 4A – Jock River Reach One Future Conditions – Without SWM controls

JFSA, 2021

SWMHYMO Input & Summary files

```
20    Metric units / ID numbers OFF
*#*************************************************************************
*#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
*#*************************************************************************
*#  Project Name: [Jock River]    Project Number: [1474-16]
*#  Date        : 04-03-2021
*#  Modeller    : [MM]
*#  Company     : JFSAinc.
*#  License #   :  2549237
*#*************************************************************************
*# CALIBRATION OF SUMMER MODEL PARAMETERS
*# USING CONTINUOUS SIMULATIONS
*# Rainfall data from JFSA raingauge installed at site + other gauges by the City
*# Use data collected from May 1st to July 14, 2003
*# 2020-11-30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0.1 instead of 0.0001)
*# 2020-12-01 correct pond curve values
*# 2020-12-01 change W_CLAR_BRAZ XIMP to 0.55, SLPI=[0.5](%) (impervious slope), and LGI up to 700m
*# 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"],NHYDin=["SN_TO"]) from 0.033 %(as per Stantec Report 2007) to 0.05 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*# 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"],NHYDin=["SN_CE"]) from 0.01 %(as per Stantec Report 2007) to 0.0255 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*
* Calibrated parameters for Summer 2003 data:  APII=50, APIK=0.85, CN=varies,
*                                              SK=0.01, InterEventTime=12,
*                                              GWResk=0.96, VHydCond=0.055
*
*# -----------------------------------------------------------------------
*
*START                TZERO=[2003.0501],  METOUT=[2],  NSTORM=[1],  NRUN=[001]
*                     ["XAVG0315.STM"] average storm data a 15 minute time step
*                     The above rainf file is an average of the JFSA gauge data
*                     with the City of Ottawa rainfall data collected during
*                     the same period.
*% 2 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[2]
                     ["C24SC002.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
READ STORM           STORM_FILENAME=["storm.001"]
*%-----------------|-------------------------------------------------------|
MODIFY STORM         ICASEms=[1],  NSHIFT=[96],
                     RedFACT=[1],
*%-----------------|-------------------------------------------------------|
DEFAULT VALUES       ICASEdef=[1],  read and print values
                     DEFVAL_FILENAME=["CitiGate.DEF"]
*%-----------------|-------------------------------------------------------|
COMPUTE API          APII=[50], APIK=[.85]/day
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["JR_HW"], DT=[1]min, AREA=[3680](ha),
                     DWF=[0](cms),  CN/C=[64], IA=[2.5](mm),
                     N=[3.0], TP=[7.13]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
```

```
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_13"], DT=[1]min, AREA=[971](ha),
                        DWF=[0](cms),   CNVC=[61], IA=[2.5](mm),
                        N=[3.0], TP=[3.76]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_GWM"], DT=[1]min, AREA=[3074](ha),
                        DWF=[0](cms),   CNVC=[55], IA=[2.5](mm),
                        N=[3], TP=[11.33]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_ASH"], DT=[1]min, AREA=[1781](ha),
                        DWF=[0](cms),   CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[3.91]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_11"], DT=[1]min, AREA=[500](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[1.24]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NN_CK"], DT=[1]min, AREA=[1917](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
```

```
                        N=[3.0], TP=[5.29]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.52
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_10"], DT=[1]min, AREA=[5666](ha),
                        DWF=[0](cms), CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[8.00]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["KG_CK"], DT=[1]min, AREA=[8376](ha),
                        DWF=[0](cms), CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[11.66]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.68
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_9"], DT=[1]min, AREA=[1132](ha),
                        DWF=[0](cms), CNVC=[70], IA=[2.5](mm),
                        N=[3.0], TP=[2.51]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NC_CK"], DT=[1]min, AREA=[4464](ha),
                        DWF=[0](cms), CNVC=[62], IA=[2.5](mm),
                        N=[3.0], TP=[11.32]hrs,
                        Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_8"], DT=[1]min, AREA=[131](ha),
                        DWF=[0](cms),   CNVC=[63], IA=[2.5](mm),
                        N=[3.0], TP=[0.90]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.65
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["HB_DR"], DT=[1]min, AREA=[3854](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[8.42]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_7"], DT=[1]min, AREA=[3197](ha),
                        DWF=[0](cms),   CNVC=[57], IA=[2.5](mm),
                        N=[3.0], TP=[6.65]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_6"], DT=[1]min, AREA=[165](ha),
                        DWF=[0](cms),   CNVC=[67], IA=[2.5](mm),
                        N=[3.0], TP=[4.18]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.67
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["VG_DR"], DT=[1]min, AREA=[1332](ha),
                        DWF=[0](cms),   CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[5.95]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5"], DT=[1]min, AREA=[224](ha),
                        DWF=[0](cms),   CNVC=[77], IA=[2.5](mm),
                        N=[3.0], TP=[0.75]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.20
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["FL_CK"], DT=[1]min, AREA=[4945](ha),
                        DWF=[0](cms),   CNVC=[74], IA=[2.5](mm),
                        N=[3.0], TP=[4.45]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5A2"], DT=[1]min, AREA=[20](ha),
                        DWF=[0](cms),   CNVC=[81], IA=[2.5](mm),
                        N=[3.0], TP=[0.62]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.61
*%----------------|-------------------------------------------------------------|
```

```
CONTINUOUS NASHYD   NHYD=["SW_5A1"], DT=[1]min, AREA=[1412](ha),
                    DWF=[0](cms),  CNVC=[75], IA=[2.5](mm),
                    N=[3.0], TP=[8.00]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_4"], DT=[1]min, AREA=[585](ha),
                    DWF=[0](cms),  CNVC=[81], IA=[2.5](mm),
                    N=[3.0], TP=[1.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["LM_CK"], DT=[1]min, AREA=[1021](ha),
                    DWF=[0](cms),  CNVC=[80], IA=[2.5](mm),
                    N=[3.0], TP=[2.46]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_2"], DT=[1]min, AREA=[177](ha),
                    DWF=[0](cms),  CNVC=[77], IA=[2.5](mm),
                    N=[3.0], TP=[0.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SM_DR"], DT=[1]min, AREA=[1122](ha),
                    DWF=[0](cms),  CNVC=[81], IA=[2.5](mm),
                    N=[3.0], TP=[3.25]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["MO_DR"], DT=[1]min, AREA=[2737](ha),
                    DWF=[0](cms),  CNVC=[76], IA=[2.5](mm),
                    N=[3.0], TP=[3.03]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*    -JFSA 2020 replaced SW_1 with a detailed model from Stantec Report 2007
*CONTINUOUS NASHYD   NHYD=["SW_1"], DT=[1]min, AREA=[3176](ha),
*                    DWF=[0](cms),  CN/C=[78], IA=[2.5](mm),
*                    N=[3.0], TP=[3.56]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# Routing hydrographs
*#
*# Starting with the addition of Jock River Headwater and Subwatershed 13
*#
ADD HYD             NHYDsum=["S_N13"], NHYDs to add=["JR_HW"+"SW_13"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 13 routed to Node 13A
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
*#
ROUTE CHANNEL       NHYDout=["N13A"] ,NHYDin=["S_N13"],
                    RDT=[1](min),
                    CHLGTH=[9074](m),   CHSLOPE=[0.0220](%),
                                          FPSLOPE=[0.0220](%),
                    SECNUM=[1.0],         NSEG=[1]
                    ( SEGROUGH, SEGDIST(m))=[0.04,15.5] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.0]
                          [15.5, 129.5]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
*#
ADD HYD             NHYDsum=["SN13A"], NHYDs to add=["N13A"+"JR_GWM"]
*%----------------|-------------------------------------------------------------|
*#
*# Insertion of a reservoir to simulate the effects of the Goodwood Marsh
*#
ROUTE RESERVOIR     NHYDout=["RES_GM"] ,NHYDin=["SN13A"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
```

```
                                        (cms) - (ha-m)
                                      [    0.0 ,   0.0 ]
                                      [1.991, 2.144    ]
                                      [2.693, 39.826   ]
                                      [3.509, 81.697   ]
                                      [4.578, 318.774  ]
                                      [5.647, 594.947  ]
                                      [7.109, 910.219  ]
                                      [8.616, 1264.589  ]
                                      [10.371, 1658.057  ]
                                      [12.402, 2090.622 ]
                                      [22.056, 3462.487 ]
                                      [    -1  ,   -1  ]  (max twenty pts)
                            NHYDovf=["      "] ,
*%----------------|-------------------------------------------------------------|
*#
SAVE HYD            NHYD=["RES_GM"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_RESGM"]
                    HYD_COMMENT=["Outflow from Res GM"]
*%----------------|-------------------------------------------------------------|
*# Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
ROUTE CHANNEL       NHYDout=["N12"] ,NHYDin=["RES_GM"] ,
                    RDT=[1](min),
                    CHLGTH=[5926](m),   CHSLOPE=[0.0759](%),
                                          FPSLOPE=[0.0759](%),
                    SECNUM=[1.0],         NSEG=[1]
                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.00]
                          [15.5, 129.5]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Ashton to Node 12
*#
ADD HYD             NHYDsum=["S_N12"], NHYDs to add=["N12"+"JR_ASH"]
SAVE HYD            NHYD=["S_N12"],   # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN12"]
                    HYD_COMMENT=["flow at S_N12 near Ashton"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
*ROUTE CHANNEL       NHYDout=["N11"] ,NHYDin=["S_N12"] ,
*                    RDT=[1](min),
*                    CHLGTH=[972](m),   CHSLOPE=[0.0514](%),
*                                         FPSLOPE=[0.0514](%),
*                    SECNUM=[1.0],         NSEG=[1]
*                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
*                    ( DISTANCE (m), ELEVATION (m))=
```

```
*                               [-40,  132.5]
*                               [-30,  132]
*                               [-25,  131.5]
*                               [-13,  130]
*                               [-8,  127.00]
*                               [-7,  126.50]
*                               [-6,  126]
*                               [-5.5,  125.50]
*                               [0,  123.75]
*                               [4.5,  125.50]
*                               [6,  126]
*                               [7.5,  126.5]
*                               [9,  127]
*                               [10,  127.5]
*                               [11.5,  128.00]
*                               [15.5,  129.5]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
*#
ROUTE CHANNEL          NHYDout=["Duml1"] ,NHYDin=["S_N12"] ,
                       RDT=[1](min),
                       CHLGTH=[972](m),   CHSLOPE=[0.054](%),
                                            FPSLOPE=[0.054](%),
                       SECNUM=[1.0],          NSEG=[1]
                       ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                             [-40,  132.5]
                             [-30,  132]
                             [-25,  131.5]
                             [-13,  130]
                             [-8,  127.00]
                             [-7,  126.50]
                             [-6,  126]
                             [-5.5,  125.50]
                             [0,  123.75]
                             [4.5,  125.50]
                             [6,  126]
                             [7.5,  126.5]
                             [9,  127]
                             [10,  127.5]
                             [11.5,  128.00]
                             [15.5,  129.5]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 11 and No Name Creek to Node 11
*#
ADD HYD                NHYDsum=["S_N11"], NHYDs to add=["Duml1"+"SW_11"+"NN_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 11 routed to Node 10
*# Section 1
*#
ROUTE CHANNEL          NHYDout=["N10"] ,NHYDin=["S_N11"] ,
                       RDT=[1](min),
                       CHLGTH=[14028](m),   CHSLOPE=[0.1568](%),
                                            FPSLOPE=[0.1568](%),
                       SECNUM=[1.0],          NSEG=[5]
                       ( SEGROUGH, SEGDIST (m))=
                        [0.04,-52.82
                         0.1,-6.47
                         -0.05,6.47
                         0.1,45.36
                         0.04,423.88] NSEG times
                      ( DISTANCE (m), ELEVATION (m))=
                             [-226.24 ,112.50]
```

```
                                [-167.50 ,111.50]
                                [-106.81 ,111.00]
                                [-92.37 ,110.00]
                                [-52.82 ,109.00]
                                [-24.90, 109.00]
                                [-17.02, 108.50]
                                [-6.47, 108.00]
                                [6.47, 108.00]
                                [15.67, 108.50]
                                [18.95, 109.00]
                                [45.36, 109.50]
                                [120.79, 110.00]
                                [145.72, 111.00]
                                [181.56, 111.50]
                                [423.88, 112.50]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 10 to Node 10
*#
ADD HYD             NHYDsum=["S_N10"], NHYDs to add=["N10"+"SW_10"]
*%----------------|---------------------------------------------------------------|
SAVE HYD            NHYD=["S_N10"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN10"]
                    HYD_COMMENT=["flow at S_N10: N10 + SW_10"]
*%----------------|---------------------------------------------------------------|
*# Addition of Kings Creek to S_N10
*#
ADD HYD             NHYDsum=["S_N10A"], NHYDs to add=["S_N10"+"KG_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 10 routed to Node 9
*# Section 2
*#
ROUTE CHANNEL       NHYDout=["N9"] ,NHYDin=["S_N10A"] ,
                    RDT=[1](min),
                    CHLGTH=[3982](m),   CHSLOPE=[0.0753](%),
                                          FPSLOPE=[0.0753](%),
                    SECNUM=[1.0],         NSEG=[4]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.04,-30.27
                       0.05,-18.42
                      -0.05,18.42
                       0.04,131.58] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                          [-446.74, 106.00]
                          [-415.68, 105.50]
                          [-285.40, 105.00]
                          [-173.77, 104.50]
                          [-144.95, 104.00]
                          [-111.18, 103.50]
                          [-94.06, 103.00]
                          [-71.02, 102.50]
                          [-30.27, 102.00]
                          [-19.33, 100.00]
                          [-18.42, 99.50]
                          [18.42, 99.50]
                          [20.77, 100.00]
                          [27.93, 101.00]
                          [52.29, 101.00]
                          [68.80, 101.50]
                          [79.66, 103.00]
                          [91.50, 103.50]
                          [131.58, 104.00]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 9 and Nichols Creek to Node 9
```

```
*#
ADD HYD                 NHYDsum=["S_N9"], NHYDs to add=["N9"+"SW_9"+"NC_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 9 routed to Node 8
*# Section 3
*#
ROUTE CHANNEL           NHYDout=["N8"] ,NHYDin=["S_N9"] ,
                        RDT=[1](min),
                        CHLGTH=[2269](m),   CHSLOPE=[0.0882](%),
                                             FPSLOPE=[0.0882](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.1,-17.99
                          -0.045,17.31
                          0.1,456.58] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                              [-201.19,100.50]
                              [-135.21, 100.00]
                              [-94.83, 99.50]
                              [-67.05, 99.00]
                              [-17.99, 98.50]
                              [-16.02, 98.00]
                              [-13.95, 97.50]
                              [13.95, 97.50]
                              [15.64, 98.00]
                              [17.31, 98.50]
                              [162.02, 98.50]
                              [172.89 ,99.00]
                              [314.38, 99.00]
                              [343.78, 99.50]
                              [365.67, 100.00]
                              [376.68, 100.00 ]
                              [393.11, 99.50]
                              [404.97, 99.50]
                              [431.70, 100.00]
                              [456.58, 100.50 ]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 8 and Hobb's Drain to Node 8
*#
ADD HYD                 NHYDsum=["S_N8"], NHYDs to add=["N8"+"SW_8"+"HB_DR"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 8 routed to Node 7
*# Section 4
*#
ROUTE CHANNEL           NHYDout=["N7"] ,NHYDin=["S_N8"],
                        RDT=[1](min),
                        CHLGTH=[3750](m),   CHSLOPE=[0.0533](%),
                                             FPSLOPE=[0.0533](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.12,-18.11
                          -0.07,17.22
                          0.12,590.05] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                              [-433.21, 102.00]
                              [-425.34, 101.50]
                              [-377.56, 101.50]
                              [-366.23, 101.00]
                              [-202.60, 100.50]
                              [-96.25, 99.50]
                              [-68.36 99.00]
                              [-18.11, 98.50]
                              [-13.81, 97.50]
```

```
                              [13.81,  97.50]
                              [17.22,  98.50]
                              [161.95,  98.50]
                              [173.11,  99.00]
                              [314.05,  99.00]
                              [365.52,  100.00]
                              [404.70,  99.50]
                              [476.74,  100.50]
                              [502.31,  101.00]
                              [584.69,  101.00]
                              [585.79,  101.00]
                              [590.05,  102.00]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed 7 to Node 7
*#
ADD HYD             NHYDsum=["S_N7"], NHYDs to add=["N7"+"SW_7"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["S_N7"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN7"]
                    HYD_COMMENT=["flow at S_N7: N7 + SW_7"]
*%----------------|-------------------------------------------------------------|
*# Insertion of a reservoir to simulate the effects of the Richmond Fen.
*# Storage area and volumes were estimated from available topo maps.
*# Release rate from fen was assumed to be controlled by the downstream
*# river cross-section for summer conditions.  It is was assumed that for up to
*# 0.75 m of water, the main channel of the river provided the storage.  Above
*# this depth, the wetland starts to signigicantly store water.
*#
ROUTE RESERVOIR     NHYDout=["RES_RF"] ,NHYDin=["S_N7"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [    0.0 ,      0.0 ]
                                  [0.9051,      2.40]
                                  [2.907,       4.13]
                                  [9.744,       9.18]
                                  [20.304,     14.96]
                                  [34.167,    310.21]
                                  [74.993,    605.46]
                                  [104.876,  900.71]
                                  [140.56,  2892.00]
                                  [225.00,  3615.63]
                                  [    -1 ,    -1  ]  (max twenty pts)
                          NHYDovf=["       "] ,
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["RES_RF"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_ResRF"]
                    HYD_COMMENT=["outflow of Richmond Fen"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 7 routed to Node 6
*# Section 5
*#
ROUTE CHANNEL       NHYDout=["N6"] ,NHYDin=["RES_RF"] ,
                    RDT=[1](min),
                    CHLGTH=[3056](m),   CHSLOPE=[0.0818](%),
                                         FPSLOPE=[0.0818](%),
                    SECNUM=[1.0],        NSEG=[5]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.025,-70.8
                      0.1,-23.9
                      -0.05,23.9
                      0.06,39.8
```

```
                          0.05,96.3] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                                        [-100.8, 97.00]
                                        [-70.8, 96.50]
                                        [-52.0, 96.00]
                                        [-35.1, 95.50]
                                        [-30.6, 95.00]
                                        [-23.9, 94.54]
                                        [23.9, 94.54]
                                        [39.8, 95.00]
                                        [50.4, 95.50]
                                        [93.5, 96.00]
                                        [94.9, 96.50]
                                        [96.3, 97.00]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 6 and Van Gaal Drain to Node 6
*#
ADD HYD             NHYDsum=["S_N6"], NHYDs to add=["N6"+"SW_6"+"VG_DR"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 6 routed to Node 5
*# Section 6
*#
ROUTE CHANNEL       NHYDout=["N5"] ,NHYDin=["S_N6"] ,
                    RDT=[1](min),
                    CHLGTH=[1852](m),   CHSLOPE=[0.0540](%),
                                          FPSLOPE=[0.0540](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.035,-131.59
                      -0.045,48.96
                      0.1,239.04] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                        [-686.30, 94.50]
                                        [-675.70, 94.00]
                                        [-492.52, 93.00]
                                        [-467.28, 94.00]
                                        [-131.59, 94.00]
                                        [-92.79, 92.50]
                                        [-18.06, 91.00]
                                        [18.06, 91.00]
                                        [43.47, 92.50]
                                        [48.96, 94.00]
                                        [177.43, 94.00]
                                        [239.04,94.50]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 5 and Flowing Creek to Node 5
*#
ADD HYD             NHYDsum=["S_N5"], NHYDs to add=["N5"+"SW_5"+"FL_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5 routed to Node 5A
*# Section 7
*#
ROUTE CHANNEL       NHYDout=["N5A"] ,NHYDin=["S_N5"] ,
                    RDT=[1](min),
                    CHLGTH=[556](m),   CHSLOPE=[0.0900](%),
                                         FPSLOPE=[0.0900](%),
                    SECNUM=[1.0],         NSEG=[4]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.04,-41.5
                      0.1,-14.0
                      -0.045,14.0
                      0.1,41.1] NSEG times
```

```
                        ( DISTANCE (m), ELEVATION (m)) =
                                        [-275.8,  93.00]
                                        [-248.6,  92.50]
                                        [-237.0,  92.00]
                                        [-219.3,  91.50]
                                        [-202.1,  91.50]
                                        [-186.0,  92.00]
                                        [-129.2,  92.00]
                                        [-117.6,  91.50]
                                        [-100.6,  91.00]
                                        [-41.5,  91.00]
                                        [-20.0,  91.00]
                                        [-14.0,  90.54]
                                        [14.0,  90.54]
                                        [15.3,  91.00]
                                        [17.3,  91.50]
                                        [38.4,  92.00]
                                        [39.8,  92.50]
                                        [41.1,  93.00]
*%----------------|------------------------------------------------------------|
*#
*# Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
*#
ADD HYD                 NHYDsum=["S_N5A"],  NHYDs to add=["N5A"+"SW_5A2"+"SW_5A1"]
*%----------------|------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5A routed to Node 4
*# Section 8
*#
ROUTE CHANNEL           NHYDout=["N4"] ,NHYDin=["S_N5A"] ,
                        RDT=[1](min),
                        CHLGTH=[4630](m),   CHSLOPE=[0.0432](%),
                                             FPSLOPE=[0.0432](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m)) =
                          [0.05,-28.2
                          -0.035,28.2
                          0.05,173.1] NSEG times
                        ( DISTANCE (m), ELEVATION (m)) =
                                        [-38.9,  92.00]
                                        [-35.8,  91.50]
                                        [-33.3,  91.00]
                                        [-28.2,  90.50]
                                        [-15.0,  87.48]
                                        [-5.0,  88.34]
                                        [5.0,  86.20]
                                        [15.0,  88.55]
                                        [28.2,  90.50]
                                        [29.7,  91.00]
                                        [46.5,  91.00]
                                        [127.8,  91.00]
                                        [148.7,  91.50]
                                        [173.1,  92.00]
*%----------------|------------------------------------------------------------|
*#
*# Addition of Subwatershed 4 and Leamy Creek to Node 4
*#
ADD HYD                 NHYDsum=["S_N4"],  NHYDs to add=["N4"+"SW_4"+"LM_CK"]
SAVE HYD                NHYD=["S_N4"],   # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["flow at  S_N4"]
*%----------------|------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 4 routed to Node 2
*# Section 9
*#
ROUTE CHANNEL           NHYDout=["N2"] ,NHYDin=["S_N4"] ,
```

```
                        RDT=[1](min),
                        CHLGTH=[1667](m),   CHSLOPE=[0.0600](%),
                                              FPSLOPE=[0.0600](%),
                        SECNUM=[1.0],         NSEG=[4]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.1,-28.0
                          -0.04,28.4
                          0.06,31.7
                          0.04,80.2] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                                [-36.3, 92.00]
                                [-32.6, 91.50]
                                [-30.2, 91.00]
                                [-28.0, 90.45]
                                [-15.0, 87.48]
                                [-5.0, 88.34]
                                [5.0, 86.20]
                                [15.0, 88.55]
                                [28.0, 90.45]
                                [28.4, 90.50]
                                [30.4, 91.00]
                                [31.7, 91.50]
                                [80.2, 92.00]
*%----------------|---------------------------------------------------------|
*#
*# Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
*#
ADD HYD             NHYDsum=["S_N2"], NHYDs to add=["N2"+"SW_2"+"SM_DR"+"MO_DR"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["S_N2"],   # OF PCYCLES=[-1],   ICASEsh=[-1]
                    HYD_FILENAME=["H_SN2"]
                    HYD_COMMENT=["flow at S_N2 Jock River Gauge at Moodie Dr."]
*%----------------|---------------------------------------------------------|
*#
*# Sum of hydrographs from Node 2 routed to Node 1
*# Section 10
*#
*#########################################################################
*%READ HYD            NHYD=["S_N2"],
*%                    HYD_FILENAME=["H-S_N2"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Node 2 routed to Node 416
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
*#
ROUTE CHANNEL       NHYDout=["N_416"] ,NHYDin=["S_N2"] ,
                    RDT=[1](min),
                    CHLGTH=[2327](m),   CHSLOPE=[0.0498](%),
                                          FPSLOPE=[0.0498](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.075,-23.96
                      -0.055,23.96
                      0.075,157.38]  NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-336.97,93.5]
                    [-318.85,93]
                    [-259,92.5]
                    [-133.18,92]
                    [-33.17,92]
                    [-27.21,92]
                    [-26.14,91.5]
                    [-24.99,91]
                    [-23.96,90.5]
                    [-14.33,88.26]
                    [-0.68,88.12]
```

```
                        [14.33,88.26]
                        [23.96,90.5]
                        [32.12,91]
                        [43.74,91.5]
                        [57.09,92]
                        [73.53,92.5]
                        [108.27,93]
                        [125.88,93.5]
                        [144.81,94]
                        [157.38,94.5]
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment SW_1a
*#     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
*#     - Undeveloped agricultural land
*#*****************************************************************************
CONTINUOUS NASHYD   NHYD=["SW_1a"], DT=[1]min, AREA=[536.42](ha),
                    DWF=[0](cms), CN/C=[72],  IA=[4.67](mm),
                    N=[3], TP=[2.79]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-Okeefe" is a part of S-1 sub-catchment. It is moved to drain before station 7245 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-Okeefe"], DT=[1](min), AREA=[44.93](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[547.296](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-Okeefe"], CINLET=[4.796](cms), NINLET=[1],
*                    MajNHYD=["S-1-OkMJ"]
*                    MinNHYD=["S-1-OkMN"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-OkS"], NHYDs to add=["S-1-OkMJ"+"S-1-OkMN"]
*%----------------|---------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-OkSR"] ,NHYDin=["S-1-OkS"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.5370, 1.7917 ]
*                                  [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-OkSovf"]
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_416"], NHYDs to add=["N_416"+"SW_1a"+"S-1-Okeefe"]
*%----------------|---------------------------------------------------------------|
SAVE HYD            NHYD=["SN_416"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Highway 416"]
*%----------------|---------------------------------------------------------------|
*#
*# Hydrograph from Node 416 routed to Node at Okeefe drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
```

```
*#
ROUTE CHANNEL         NHYDout=["N_OK"] ,NHYDin=["SN_416"] ,
                      RDT=[1](min),
                      CHLGTH=[497](m),   CHSLOPE=[0.3018](%),
                                           FPSLOPE=[0.3018](%),
                      SECNUM=[1.0],          NSEG=[3]
                      ( SEGROUGH, SEGDIST (m))=
                        [0.075,-19.40
                        -0.055,19.40
                        0.075,377.02] NSEG times
                      ( DISTANCE (m), ELEVATION (m))=
                      [-1061.41, 92.50]
                      [-945.91, 92.00]
                      [-783.64, 91.50]
                      [-136.74, 91.00]
                      [-86.04, 91.00]
                      [-20.86, 91.00]
                      [-20.18, 90.50]
                      [-19.40, 90.00]
                      [-11.68, 86.89]
                      [0.00, 86.10]
                      [12.09, 86.81]
                      [19.40, 90.00]
                      [34.68, 90.50]
                      [60.56, 91.00]
                      [170.14, 91.00]
                      [175.05, 90.50]
                      [180.29, 90.00]
                      [193.41, 90.00]
                      [195.98, 90.50]
                      [377.02, 92.50]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Catchment OKEEFE
*#     - To O'Keefe drain (north of the Jock)
*#     - Developed with assumed 43% imp.
*#     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area
513.02 HA)
*#     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model
(Citi-Gate 2014).
*%----------------|---------------------------------------------------------------|
*POST DEVELOPMENT CONDITIONS
*%----------------|---------------------------------------------------------------|
*#################################################################################
CONTINUOUS NASHYD     NHYD=["O-1"], DT=[1]min, AREA=[63.72](ha),
                      DWF=[0](cms), CN/C=[61], IA=[6.2](mm), N=[3], TP=[.9]hrs,
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),
                      SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[12](hrs)
                      Baseflow simulation parameters:
                      BaseFlowOption=[1] ,
                      InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                      VHydCond=[0.055](mm/hr),     END=-1
*%----------------|-------------------------------------------------------------------
-------------------------------|
*ROUTE FLOW THROUGH AREA O-2
ROUTE CHANNEL         NHYDout=["O-1R"], NHYDin=["O-1"], RDT=[1](min),
                      CHLGTH=[960](m), CHSLOPE=[0.63](%), FPSLOPE=[0.63](%),
                      SECNUM=[1], NSEG=[3]
                      ( SEGROUGH, SEGDIST (m))=[0.06,4 -.043,6 0.06,10] NSEG times
                      ( DISTANCE (m), ELEVATION (m))=[0.00, 2.0]
                      [0.0, 2.0]
                      [4.0, 0.0]
                      [6.0, 0.0]
                      [10.0, 2.0]
```

```
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-2"], DT=[1]min, AREA=[28.61](ha),
                    DWF=[0](cms), CNVC=[57], IA=[5.2](mm), N=[3], TP=[1.1]hrs,
                   Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-4"], DT=[1]min, AREA=[46.94](ha),
                    DWF=[0](cms), CNVC=[49], IA=[9.2](mm), N=[3], TP=[0.9]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*TOTAL EXTERNAL FLOW NORTH OF O'KEEFE CT. CROSSING
ADD HYD             NHYDsum=["OKF-N"], NHYDs to add=["O-1R"+"O-2"+"O-4"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW THROUGH AREA O-6
ROUTE CHANNEL       ROUTE CHANNEL NHYDout=["OKF-NR"], NHYDin=["OKF-N"], RDT=[1](min),
                    CHLGTH=[210](m), CHSLOPE=[.81](%), FPSLOPE=[.81](%),
                    SECNUM=[1], NSEG=[3]
                    (SEGROUGH, SEGDIST(m))=[0.043,22.43 -0.043,25.07
                    0.043,45.54] NSEG times
                    (DISTANCE(m), ELEVATION(m))=[0.00, 3.73]
                    (14.62, 1.56)
                    (18.41, 1.44)
                    (22.43, 0.00)
                    (25.07, 0.70)
                    (29.10, 1.79)
                    (33.73, 2.71)
                    (45.54, 3.58)
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-6"], DT=[1]min, AREA=[16.46](ha),
                    DWF=[0](cms), CNVC=[43], IA=[9.2](mm), N=[3], TP=[0.7]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["O-3"], DT=[1](min), AREA=[39.67](ha), XIMP=[0.15],
TIMP=[0.30], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[50], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[0.32](%),
                    LGP=[440](m), MNP=[0.035], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.32](%),
                    LGI=[1880](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["O-5"], DT=[1](min), AREA=[60.63](ha), XIMP=[0.13],
TIMP=[0.26], DWF=[0](cms),
```

```
                        LOSS=[2], SCS curve number CN=[61],
                        Pervious surfaces: IAper=[4.67](mm), SLPP=[1.38](%),
                        LGP=[550](m), MNP=[0.035], SCP=[0](min), Impervious surfaces:
                        IAimp=[1.57](mm), SLPI=[1.38](%),
                        LGI=[1450](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
*TOTAL EXTERNAL FLOWS WEST OF THE SITE AND NORTH OF O'KEEFE CRT
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["PT1"], NHYDs to add=["OKF-NR"+"O-3"+"O-5"+"O-6"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-7"], DT=[1]min, AREA=[5.28](ha),
                        DWF=[0](cms), CNVC=[54], IA=[7.5](mm), N=[3], TP=[0.6]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr), END=-1
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 1 - TOTAL FLOW NORTH OF FALLOWFIELD DR. AND O'KEEFE CRT.
ADD HYD             NHYDsum=["FF"], NHYDs to add=["PT1"+"O-7"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 1
ROUTE CHANNEL       NHYDout=["DRAIN1"], NHYDin=["FF"], RDT=[1](min),
                        CHLGTH=[302]{m), CHSLOPE=[1.00](%), FPSLOPE=[1.00](%),
                        SECNUM=[1], NSEG=[3]
                        (SEGROUGH, SEGDIST(m))=[0.07,13.45 -0.043,16.55 0.07,30.00] NSEG
                        times
                        (DISTANCE(m), ELEVATION(m))=[0.00, 1.70]
                        (3.45, 0.60)
                        (13.45, 0.50)
                        (14.45, 0.00)
                        (15.55, 0.00)
                        (16.55, 0.50)
                        (26.55, 0.60)
                        (30.00, 1.70)
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["D1"], DT=[1]min, AREA=[1.17](ha),
                        DWF=[0](cms), CNVC=[84], IA=[9.0](mm), N=[3], TP=[0.28]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr), END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A1"], DT=[1]min, AREA=[2.50](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[223.607](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
```

```
ROUTE RESERVOIR      NHYDout=["A1-STR"], NHYDin=["A1"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                (cms) - (ha-m)
                               [ 0.000 , 0.000 ]
                               [ 0.035 , 0.038 ]
                               [ 0.072 , 0.051 ]
                               [ 0.100 , 0.059 ]
                               [ 0.125 , 0.070 ]
                               [ 0.160 , 0.074 ]
                               [ 0.185 , 0.081 ]
                               [ -1 , -1 ] (max twenty pts)
                               NHYDovf=["A1-OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-2"], DT=[1]min, AREA=[0.59](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                     Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                     F=[0.00](mm),
                     Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                     MNP=[0.250], SCP=[0](min),
                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                     LGI=[108.628](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                     END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR      NHYDout=["ST2STR"], NHYDin=["ST-2"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                (cms) - (ha-m)
                               [ 0.000 , 0.0000 ]
                               [ 0.052 , 0.0010 ]
                               [ 0.053 , 0.0080 ]
                               [ -1 , -1 ] (max twenty pts)
                               NHYDovf=["ST2OVF"]
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
*TOTAL FLOW NORTH OF STRANDHERD DR. (EAST BRANCH) CROSSING
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["O-8"], DT=[1]min, AREA=[60.55](ha),
                     DWF=[0](cms), CN/C=[69], IA=[4.0](mm), N=[3], TP=[1.0]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE PIPE           PTYPE=[2]rect, NHYDout=["O8PIPE"], RNUMBER=[1], PWIDTH=[1800](mm),
PHEIGHT=[1200](mm), PLNGTH=[335.1](m),
                     PROUGH=[0.013], PSLOPE=[0.001](m/m), NHYDin=["O-8"], RDT=[1](min)
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["ST2-IN"], NHYDs to
add=["DRAIN1"+"D1"+"A1-STR"+"A1-OVF"+"ST2STR"+"ST2OVF"+"O8PIPE"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A7"], DT=[1]min, AREA=[3.51](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                     Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                     F=[0.00](mm),
                     Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                     MNP=[0.250], SCP=[0](min),
                     Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                     LGI=[264.953](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
```

```
                        END=-1
*%----------------|-----------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["A7-STR"], NHYDin=["A7"], RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [ 0.000 , 0.000 ]
                                [ 0.049 , 0.054 ]
                                [ 0.102 , 0.072 ]
                                [ 0.140 , 0.082 ]
                                [ 0.175 , 0.099 ]
                                [ 0.225 , 0.105 ]
                                [ 0.260 , 0.114 ]
                                [ -1 , -1 ] (max twenty pts)
                                NHYDovf=["A7-OVF"]
*%----------------|-----------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-3"], DT=[1]min, AREA=[0.71](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[119.164](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-----------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["ST3STR"], NHYDin=["ST-3"], RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [ 0.000 , 0.0000 ]
                                [ 0.063 , 0.0010 ]
                                [ 0.064 , 0.0094 ]
                                [ -1 , -1 ] (max twenty pts)
                                NHYDovf=["ST3OVF"]
*%----------------|-----------------------------------------------------------|
*ANALYSIS POINT 2 - TOTAL FLOW AT OUTLET OF STREET 2/3 INTERSECTION
*%----------------|-----------------------------------------------------------|
ADD HYD                 NHYDsum=["PT2ST3"], NHYDs to
add=["ST2-IN"+"A7-STR"+"A7-OVF"+"ST3STR"+"ST3OVF"]
*%----------------|-----------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 2
ROUTE CHANNEL           NHYDout=["DRAIN2"], NHYDin=["PT2ST3"], RDT=[1](min),
                        CHLGTH=[592]{m), CHSLOPE=[.23](%), FPSLOPE=[.23](%),
                                        SECNUM=[1], NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=[0.07,12.60 -0.043,17.40 0.07,30.00] NSEG
                        times
                        ( DISTANCE (m), ELEVATION (m))=[0.00, 1.70]
                        (2.60, 0.95)
                        (12.60, 0.75)
                        (14.10, 0.00)
                        (15.90, 0.00)
                        (17.40, 0.75)
                        (27.40, 0.95)
                        (30.00, 1.70)
*%----------------|-----------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["D2"], DT=[1]min, AREA=[2.28](ha), DWF=[0](cms), CN/C=[84],
IA=[9.0](mm),
                        N=[3], TP=[0.99]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
```

```
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A17"], DT=[1]min, AREA=[12.04](ha), XIMP=[0.68],
TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[490.714](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A17STR"], NHYDin=["A17"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.169 , 0.185 ]
                                  [ 0.349 , 0.248 ]
                                  [ 0.482 , 0.283 ]
                                  [ 0.602 , 0.338 ]
                                  [ 0.771 , 0.359 ]
                                  [ 0.891 , 0.391 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["A17OVF"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-4"], DT=[1]min, AREA=[0.35](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[83.666](m),
                        MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST4STR"], NHYDin=["ST-4"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.0000 ]
                                  [ 0.031 , 0.0010 ]
                                  [ 0.032 , 0.0050 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["ST4OVF"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A18"], DT=[1]min, AREA=[5.30](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[325.576](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A18STR"], NHYDin=["A18"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.074 , 0.082 ]
                                  [ 0.154 , 0.109 ]
```

```
                                    [ 0.212 , 0.125 ]
                                    [ 0.265 , 0.149 ]
                                    [ 0.339 , 0.158 ]
                                    [ 0.392 , 0.172 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["A18OVF"]
*%----------------|---------------------------------------------------------------|
*ANALYSIS POINT 3 - TOTAL FLOW AT OUTLET OF STREET 4
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["PT3ST4"], NHYDs to
add=["DRAIN2"+"D2"+"A17STR"+"A17OVF"+"ST4STR"+"ST4OVF"+"A18STR"+"A18OVF"]
*%----------------|---------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 3
ROUTE CHANNEL       NHYDout=["DRAIN3"], NHYDin=["PT3ST4"], RDT=[1](min),
                    CHLGTH=[525](m), CHSLOPE=[.23](%), FPSLOPE=[.23](%),
                    SECNUM=[1], NSEG=[3]
                    (SEGROUGH, SEGDIST(m))=[0.07,12.50 -0.043,17.50 0.07,30.00] NSEG
                    times
                    (DISTANCE(m), ELEVATION(m))=[0.00, 1.70]
                    (2.50, 1.00)
                    (12.50, 0.80)
                    (14.10, 0.00)
                    (15.90, 0.00)
                    (17.50, 0.80)
                    (27.50, 1.00)
                    (30.00, 1.70)
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["D3"], DT=[1]min, AREA=[2.51](ha),
                    DWF=[0](cms), CN/C=[86], IA=[8.7](mm), N=[3], TP=[0.73]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr), END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C1"], DT=[1]min, AREA=[3.41](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[261.151](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["C1-STR"], NHYDin=["C1"], RDT=[1](min),
                          TABLE of (OUTFLOW-STORAGE) values
                                    (cms) - (ha-m)
                                    [ 0.000 , 0.000 ]
                                    [ 0.048 , 0.052 ]
                                    [ 0.099 , 0.070 ]
                                    [ 0.136 , 0.080 ]
                                    [ 0.170 , 0.096 ]
                                    [ 0.218 , 0.102 ]
                                    [ 0.252 , 0.111 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["C1-OVF"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-5"], DT=[1]min, AREA=[0.45](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
```

```
                        F=[0.00](mm),
1451                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
1452                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[94.868](m),
                        MNI=[0.013], SCI=[0](min),
1453                    Continuous simulation parameters:
1454                    IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
1455    *%--------------|-------------------------------------------------------------|
1456    ROUTE RESERVOIR     NHYDout=["ST5STR"], NHYDin=["ST-5"], RDT=[1](min),
1457                            TABLE of ( OUTFLOW-STORAGE ) values
1458                                      (cms) - (ha-m)
1459                                    [ 0.000 , 0.0000 ]
1460                                    [ 0.040 , 0.0010 ]
1461                                    [ 0.041 , 0.0062 ]
1462                                    [ -1 , -1 ] (max twenty pts)
1463                                    NHYDovf=["ST5OVF"]
1464    *%--------------|-------------------------------------------------------------|
1465    ADD HYD             NHYDsum=["ST5-E"], NHYDs to
        add=["DRAIN3"+"D3"+"C1-STR"+"C1-OVF"+"ST5STR"+"ST5OVF"]
1466    *%--------------|-------------------------------------------------------------|
1467    CONTINUOUS STANDHYD NHYD=["STRAND"], DT=[1](min), AREA=[7.59](ha),
1468                    XIMP=[0.64], TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
1469                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
1470                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
1471                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[1230](m),
                        MNI=[0.013], SCI=[0](min),
1472                    Continuous simulation parameters:
1473                    IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
1474    *%--------------|-------------------------------------------------------------|
1475    ROUTE RESERVOIR     NHYDout=["S-POND"], NHYDin=["STRAND"], RDT=[1](min),
1476                            TABLE of ( OUTFLOW-STORAGE ) values
1477                                      (cms) - (ha-m)
1478                                    [ 0.000 , 0.000 ]
1479                                    [ 0.033 , 0.188 ]
1480                                    [ 0.057 , 0.253 ]
1481                                    [ 0.104 , 0.287 ]
1482                                    [ 0.160 , 0.336 ]
1483                                    [ 0.340 , 0.346 ]
1484                                    [ 0.471 , 0.360 ]
1485                                    [ 0.824 , 0.390 ]
1486                                    [ -1 , -1 ] (max twenty pts)
1487                                    NHYDovf=["S-OVF"]
1488    *%--------------|-------------------------------------------------------------|
1489    ADD HYD             NHYDsum=["SSAOUT"], NHYDs to add=["ST5-E"+"S-POND"+"S-OVF"]
1490    *%--------------|-------------------------------------------------------------|
1491    SAVE HYD            NHYD=["SSAOUT"], # OF PCYCLES=[5], ICASEsh=[1]
1492                        HYD_COMMENT=["SSAOUT"]
1493    *%--------------|-------------------------------------------------------------|
1494    CONTINUOUS STANDHYD NHYD=["Area-A"], DT=[1]min, AREA=[66.75](ha), XIMP=[0.64],
        TIMP=[0.80], DWF=[0](cms), LOSS=[1]:
1495                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
1496                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
1497                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[1155.422](m), MNI=[0.013], SCI=[0](min),
1498                    Continuous simulation parameters:
1499                    IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
1500    *%--------------|-------------------------------------------------------------|
1501    SAVE HYD            NHYD=["Area-A"], # OF PCYCLES=[1], ICASEsh=[1]
1502                        HYD_COMMENT=["SMWF-A Inflow"]
```

```
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["SWMF-A"], NHYDin=["Area-A"], RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [ 0.000 , 0.000 ]
                                [ 0.103 , 1.077 ]
                                [ 0.128 , 1.749 ]
                                [ 0.382 , 2.282 ]
                                [ 0.703 , 2.582 ]
                                [ 1.256 , 2.978 ]
                                [ 1.567 , 3.202 ]
                                [ 1.955 , 3.493 ]
                                [ 2.100 , 3.600 ]
                                [ -1 , -1 ] (max twenty pts)
                                NHYDovf=["SWMAOV"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["SWMF-A"], # OF PCYCLES=[1], ICASEsh=[1]
                    HYD_COMMENT=["SMMF-A Outflow"]
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 4 - TOTAL FLOW AT OUTLET OF STREET 5
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["PT4ST5"], NHYDs to add=["SSAOUT"+"SWMF-A"+"SWMAOV"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C6"], DT=[1]min, AREA=[1.87](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[193.391](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["C6-STR"], NHYDin=["C6"], RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [ 0.000 , 0.000 ]
                                [ 0.026 , 0.029 ]
                                [ 0.054 , 0.038 ]
                                [ 0.075 , 0.044 ]
                                [ 0.093 , 0.052 ]
                                [ 0.120 , 0.056 ]
                                [ 0.138 , 0.061 ]
                                [ -1 , -1 ] (max twenty pts)
                                NHYDovf=["C6-OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C7"], DT=[1]min, AREA=[1.62](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[180.000](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["C7-STR"], NHYDin=["C7"], RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [ 0.000 , 0.000 ]
                                [ 0.023 , 0.025 ]
                                [ 0.047 , 0.033 ]
```

```
                                        [ 0.065 , 0.038 ]
                                        [ 0.081 , 0.045 ]
                                        [ 0.104 , 0.048 ]
                                        [ 0.120 , 0.053 ]
                                        [ -1 , -1 ] (max twenty pts)
                                        NHYDovf=["C7-OVF"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-6"], DT=[1]min, AREA=[0.41](ha),XIMP=[0.46], TIMP=[0.57],
DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[90.554](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST6STR"], NHYDin=["ST-6"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                   [ 0.000 , 0.0000 ]
                                   [ 0.036 , 0.0010 ]
                                   [ 0.037 , 0.0058 ]
                                   [ -1 , -1 ] (max twenty pts)
                                   NHYDovf=["ST6OVF"]
*%----------------|---------------------------------------------------------------|
*ANALYSIS POINT 5 - TOTAL FLOW AT OUTLET OF STREET 6
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["PT5ST6"], NHYDs to
add=["PT4ST5"+"C6-STR"+"C6-OVF"+"C7-STR"+"C7-OVF"+"ST6STR"+"ST6OVF"]
*%----------------|---------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 4
ROUTE CHANNEL       NHYDout=["DRAIN4"], NHYDin=["PT5ST6"], RDT=[1](min),
                    CHLGTH=[324](m), CHSLOPE=[.10](%), FPSLOPE=[.10](%),
                    SECNUM=[1], NSEG=[3]
                    ( SEGROUGH, SEGDIST(m))=[0.07,12.00 -0.043,18.00 0.07,30.00] NSEG
                    times
                    ( DISTANCE(m), ELEVATION(m))=[0.00, 2.00]
                    (2.00, 1.20)
                    (12.00, 1.00)
                    (14.00, 0.00)
                    (16.00, 0.00)
                    (18.00, 1.00)
                    (28.00, 1.20)
                    (30.00, 2.00)
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["D4"], DT=[1]min, AREA=[1.73](ha), DWF=[0](cms), CN/C=[88],
IA=[8.4](mm),
                    N=[3], TP=[0.60]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["Area-B"], DT=[1]min, AREA=[24.04](ha), XIMP=[0.62],
TIMP=[0.77], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[1.4](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
```

```
                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.4](%),
                        LGI=[693.397](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["SWMF-B"], NHYDin=["Area-B"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [ 0.000 , 0.000 ]
                                      [ 0.025 , 0.090 ]
                                      [ 0.175 , 0.510 ]
                                      [ 0.350 , 0.710 ]
                                      [ 0.495 , 0.820 ]
                                      [ 0.648 , 0.980 ]
                                      [ 0.965 , 1.045 ]
                                      [ 1.072 , 1.140 ]
                                      [ -1 , -1 ] (max twenty pts)
                                      NHYDovf=["SWMBOVF"]
*%----------------|------------------------------------------------------------|
ADD HYD                 NHYDsum=["D4-EX"], NHYDs to add=["DRAIN4"+"D4"+"SWMF-B"+"SWMBOVF"]
*%----------------|------------------------------------------------------------|
*ROUTE FLOW THROUGH O'Keefe Drain 5
* JFSA: Nov. 2020, added en points to close X-Section
ROUTE CHANNEL           NHYDout=["DRAIN5"], NHYDin=["D4-EX"], RDT=[1](min),
                        CHLGTH=[413.0](m), CHSLOPE=[0.16](%), FPSLOPE=[0.16](%),
                        SECNUM=[1], NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=[0.043,12.29 -0.033,17.97
                        0.043,32.84] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=(-0.01, 2.50)
                        [0.00, 1.41]
                        [6.13, 0.97]
                        [12.29, 0.89]
                        [15.71, 0.00]
                        [17.97, 0.39]
                        [23.04, 0.35]
                        [32.83, 0.96]
                        (32.84, 2.50)
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["D5"], DT=[1]min, AREA=[1.90](ha),
                        DWF=[0](cms), CN/C=[86], IA=[8.7](mm), N=[3], TP=[0.69]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*EXTERNAL FLOWS SOUTHEAST OF THE SITE NORTH OF McKENNA CASEY DR.
CONTINUOUS NASHYD       NHYD=["O-13SDF"], DT=[1]min, AREA=[9.74](ha),
                        DWF=[0](cms), CN/C=[81], IA=[4.0](mm), N=[3], TP=[.43]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*SNOW DISPOSAL FACILITY
*PARAMETERS BASED ON ROBINSON 2006 MODEL
ROUTE RESERVOIR         NHYDout=["SDF"], NHYDin=["O-13SDF"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
```

```
                                        (cms) - (ha-m)
                                       [0.000, 0.000]
                                       [0.150, 0.600]
                                       (0.200, 1.500)
                                       [ -1 , -1 ] (max twenty pts)
                                       NHYDovf=["OVFSDF"]
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 6 - McKenna Casey Dr.
*%----------------|-------------------------------------------------------------|
ADD HYD            NHYDsum=["PT6MC"], NHYDs to add=["DRAIN5"+"D5"+"SDF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD  NHYD=["O-15"], DT=[1]min, AREA=[10.67](ha),
                   DWF=[0](cms), CN/C=[82], IA=[7.5](mm), N=[3], TP=[0.30]hrs,
                   Continuous simulation parameters:
                   IaRECper=[4](hrs),
                   SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                   InterEventTime=[12](hrs)
                   Baseflow simulation parameters:
                   BaseFlowOption=[1] ,
                   InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                   VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*TOTAL FLOW NORTH OF McKENNA CASEY DR.
ADD HYD            NHYDsum=["M-C"], NHYDs to add=["PT6MC"+"O-15"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW THROUGH AREA O-14
* JFSA: Nov. 2020, added end points to close X-section
ROUTE CHANNEL      NHYDout=["O-14Ch"], NHYDin=["M-C"], RDT=[1](min),
                   CHLGTH=[845.3](m), CHSLOPE=[0.10](%), FPSLOPE=[0.10](%),
                   SECNUM=[1], NSEG=[3]
                   ( SEGROUGH, SEGDIST (m))=[0.06,15.00 -0.033,18.04 0.06,31.85] NSEG
                   times
                   ( DISTANCE (m), ELEVATION (m))=[-0.01, 2.5
                   (0.00, 1.53]
                   (5.56, 1.47)
                   (9.21, 1.45)
                   (12.45, 1.53)
                   (13.70, 1.50)
                   (15.00, 0.69)
                   (15.34, 0.00)
                   (16.51, 0.05)
                   (17.30, 0.17)
                   (18.04, 0.74)
                   (19.29, 1.32)
                   (22.73, 1.47)
                   (31.84, 1.41)
                   (31.85, 2.50)
*%----------------|-------------------------------------------------------------|
*%    -Change O-14 from NASHYD to STANDHYD, name it "S-1-Okeefe" and add it to S-1
subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -JFSA 2021-02-16, add detailed subcatchment drainage area for each subcatchment
in Corrigan sub-catchment. After adding part of  O-14 to S_1 sub-catchment so O-14
becomes 5 ha instead of 30.02 ha and TP becomes 0.133 (5*0.8/30.02) instead of 0.8
CONTINUOUS NASHYD  NHYD=["O-14"], DT=[1]min, AREA=[5](ha),
                   DWF=[0](cms), CN/C=[82], IA=[7.5](mm), N=[3], TP=[0.133]hrs,
                   Continuous simulation parameters:
                   IaRECper=[4](hrs),
                   SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                   InterEventTime=[12](hrs)
                   Baseflow simulation parameters:
                   BaseFlowOption=[1] ,
                   InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                   VHydCond=[0.055](mm/hr),    END=-1
*
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 7 - JOCK RIVER
```

```
* 2020-12-01 To Foster Drain
* 2020-12-01  replace ("PT7JR") by ("OKEEFE")
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["OKEEFE"], NHYDs to add=["O-14Ch"+"O-14"]
*%----------------|---------------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["OKEEFE"], DT=[1](min), AREA=[448](ha),
*                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[77],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                            LGI=[1728](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),    END=-1
*#####################################################################
*#    Okeefe Pond
*#    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#      and a ratio of the catchment area to the West Clarke pond rating curve
*#      from the MSS for the next coordinates
*#####################################################################
*ROUTE RESERVOIR     NHYDout=["P_OKE"], NHYDin=["OKEEFE"],
*                    RDT=[1](min),
*                         TABLE of ( OUTFLOW-STORAGE ) values
*                                   (cms) - (ha-m)
*                                  [   0.0  ,  0.0]
*                                  [  14.13 , 13.0]
*                                  [   -1   ,  -1 ]  (maximum one hundred pairs of points)
*                                  NHYDovf=["ok-OVF"],
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-D2" and "S-1-D3" are part of S-1 sub-catchment. They are moved to drain before station 6215 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-D2"], DT=[1](min), AREA=[18.67](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[352.798](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D2"], DT=[1]min, AREA=[18.67](ha),
*                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.120]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D2"], CINLET=[2.062](cms), NINLET=[1],
*                    MajNHYD=["S-1-D2J"]
*                    MinNHYD=["S-1-D2N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D2S"], NHYDs to add=["S-1-D2J"+"S-1-D2N"]
*%----------------|---------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D2R"] ,NHYDin=["S-1-D2S"] ,
```

```
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                     [ 0.0      , 0.0 ]
*                                     [ 0.2231, 0.7445 ]
*                                     [     -1   ,   -1     ]  (max twenty pts)
*                             NHYDovf=["S-1-D2Rovf"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D3"], DT=[1](min), AREA=[6.79](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[212.760](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D3"], DT=[1]min, AREA=[6.79](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.281]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D3"], CINLET=[0.719](cms), NINLET=[1],
*                    MajNHYD=["S-1-D3J"]
*                    MinNHYD=["S-1-D3N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|-------------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D3S"], NHYDs to add=["S-1-D3J"+"S-1-D3N"]
*%----------------|-------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D3R"] ,NHYDin=["S-1-D3S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0      , 0.0 ]
*                                  [ 0.0811, 0.2708 ]
*                                  [     -1   ,   -1     ]  (max twenty pts)
*                          NHYDovf=["S-1-D3Rovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_OK"], NHYDs to add=["N_OK"+"OKEEFE"+"S-1-D2"+"S-1-D3"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["SN_OK"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Okeefe Drain"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Node Okeefe routed to Node at Foster Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
*#
ROUTE CHANNEL       NHYDout=["N_FO"] ,NHYDin=["SN_OK"] ,
                    RDT=[1](min),
                    CHLGTH=[1183](m),   CHSLOPE=[0.0761](%),
                                         FPSLOPE=[0.0761](%),
                    SECNUM=[1.0],        NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.050,-33.89
                      -0.035,31.59
                      0.050,34.41] NSEG times
```

```
                    ( DISTANCE (m), ELEVATION (m))=
                    [-794.18, 91.00]
                    [-775.41, 91.50]
                    [-702.63, 91.50]
                    [-546.19, 91.50]
                    [-529.54, 91.50]
                    [-323.44, 91.00]
                    [-320.71, 91.00]
                    [-183.59, 91.00]
                    [-182.54, 90.50]
                    [-181.36, 90.00]
                    [-177.37, 90.00]
                    [-87.70, 90.00]
                    [-33.89, 90.00]
                    [-18.52, 86.88]
                    [0.00,85.20]
                    [16.20, 86.83]
                    [31.59, 90.00]
                    [33.03, 90.50]
                    [34.41, 91.00]
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#    Catchment FOSTER
*#    - To Foster ditch (north of the Jock)
*#    - Partially developed (medium density); remaining agricultural
*#    - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
*#    - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (513.02 HA) so the total drainage area remains the same
*#    - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["FOSTER"], DT=[1]min, AREA=[325.44](ha),
                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[74],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[1472.956](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*#*****************************************************************************
*#    Foster Pond
*#    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#      and a ratio of the catchment area to the West Clarke pond rating curve
*#      from the MSS for the next coordinates
*#*****************************************************************************
ROUTE RESERVOIR     NHYDout=["P_FOS"],  NHYDin=["FOSTER"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,  0.0 ]
                                  [   10.34 , 10]
                                  [   -1  ,  -1  ]  (max twenty pts)
                          NHYDovf=["FO-OVF"]
*%----------------|-----------------------------------------------------------|
ADD HYD             NHYDsum=["FOSTER-OUT"], NHYDs to add=["P_FOS"+"FO-OVF"]
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
*    -Brazeau area from P 1800-19 =[71.751], change to 63.59 ha based on GIS measurements
*     -JFSA, 2021-01-19  update "W_CLAR_BRAZ" to 73.29 ha based on GIS measurements
*     -JFSA, 2021-01-22  Brazeau ("MS_P10"+"P10-OVF")brazeau pond discharges directly to the jock river through a road side ditch on the west side of Borrisokane road (station 6016)
```

```
CONTINUOUS STANDHYD NHYD=["W_CLAR_BRAZ"], DT=[1]min, AREA=[73.29](ha),
                    XIMP=[0.6], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[699.00](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
* 2020-12-01 correct pond curve values
ROUTE RESERVOIR     NHYDout=["MS_P10"],  NHYDin=["W_CLAR_BRAZ"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,  0.0 ]
                                  [ 0.068 , 0.001 ]
                                  [ 0.271 , 0.022 ]
                                  [ 0.379 , 0.051 ]
                                  [ 0.48 , 0.091 ]
                                  [ 0.853 , 0.341 ]
                                  [ 1.005 , 0.61 ]
                                  [ 1.128 , 1.231 ]
                                  [ 1.155 , 1.592 ]
                                  [ 1.194 , 1.876 ]
                                  [ 1.2 , 1.921 ]
                                  [ 1.259 , 2.369 ]
                                  [ 1.3 , 2.665 ]
                                  [ 1.349 , 2.813 ]
                                  [   -1  ,  -1  ]  (max twenty pts)
                          NHYDovf=["P10-OVF"]
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D2" is a part of S-1 sub-catchment. It is moved to drain
before station 980 on Foster Drain
CONTINUOUS STANDHYD NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[74],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[181.475](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),   END=-1
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-D2"], CINLET=[0.508](cms), NINLET=[1],
*                    MajNHYD=["S-1-FO-D2J"]
*                    MinNHYD=["S-1-FO-D2N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|-------------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-FO-D2S"], NHYDs to add=["S-1-FO-D2J"+"S-1-FO-D2N"]
```

```
*%----------------|-------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-FO-D2R"] ,NHYDin=["S-1-FO-D2S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.0590, 0.1970 ]
*                                  [    -1   , -1    ]  (max twenty pts)
*                          NHYDovf=["S-1FOD2ovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["980"], NHYDs to add=["FOSTER-OUT"+"S-1-FO-D2"]
*%----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["980"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Station 980 on Foster Drain"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Node Foster SWM (Station 980) to Node at station 520
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 980
*#
ROUTE CHANNEL        NHYDout=["980-out"] ,NHYDin=["980"] ,
                     RDT=[1](min),
                     CHLGTH=[460](m),   CHSLOPE=[0.04348](%),
                                          FPSLOPE=[0.04348](%),
                     SECNUM=[1.0],         NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.050, 45.90
                       -0.035, 53.30
                       0.050, 100] NSEG times
                     ( DISTANCE (m), ELEVATION (m))=
                     [0, 91.75 ]
                     [42.4, 92.18 ]
                     [43.5, 92.16 ]
                     [44.1, 92.1 ]
                     [44.6, 92 ]
                     [44.8, 91.86 ]
                     [45.9, 91.04 ]
                     [46.4, 90.65 ]
                     [46.8, 90.36 ]
                     [47.9, 90.32 ]
                     [48.7, 90.35 ]
                     [50.7, 90.33 ]
                     [52.2, 90.38 ]
                     [52.5, 90.59 ]
                     [53.3, 91.28 ]
                     [54, 91.83 ]
                     [54.3, 92 ]
                     [54.8, 92.08 ]
                     [55.4, 92.12 ]
                     [100, 91.84 ]
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D1" is a part of S-1 sub-catchment. It is moved to drain
before station 520 on Foster Drain
CONTINUOUS STANDHYD NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
                     XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                     SCS curve number CN=[74],
                     Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                     Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                              LGI=[184.572](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                     SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-FO-D1"], CINLET=[0.605](cms), NINLET=[1],
*                     MajNHYD=["S-1-FO-D1J"]
```

```
*                       MinNHYD=["S-1-FO-D1N"]
*                       TMISTO=[9999999](cu-m)
*%----------------|------------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-FO-D1S"], NHYDs to add=["S-1-FO-D1N"+"S-1-FO-D1J"]
*%----------------|------------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-FO-D1R"] ,NHYDin=["S-1-FO-D1S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [ 0.0     , 0.0 ]
*                                    [ 0.0611, 0.2038 ]
*                                    [    -1   ,  -1    ]  (max twenty pts)
*                             NHYDovf=["S-1FOD1ovf"]
*%----------------|------------------------------------------------------------|
ADD HYD                 NHYDsum=["520"], NHYDs to add=["980-out"+"S-1-FO-D1"]
*%----------------|------------------------------------------------------------|
SAVE HYD                NHYD=["520"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Sation 520 on Foster Drain"]
*%----------------|------------------------------------------------------------|
*# Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 520
*#
ROUTE CHANNEL           NHYDout=["520-out"] ,NHYDin=["520"] ,
                        RDT=[1](min),
                        CHLGTH=[860](m),   CHSLOPE=[0.5872](%),
                                             FPSLOPE=[0.5872](%),
                        SECNUM=[1.0],         NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,45.90
                          -0.035,54.3
                          0.050,100.1097] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [0, 91.26 ]
                        [44.9, 91.46 ]
                        [45.1, 91.37 ]
                        [45.9, 90.84 ]
                        [47, 90.32 ]
                        [47.5, 90.22 ]
                        [48, 90.17 ]
                        [50.7, 90.19 ]
                        [51.5, 90.17 ]
                        [52.2, 90.13 ]
                        [52.7, 90.12 ]
                        [53.3, 90.14 ]
                        [53.5, 90.31 ]
                        [53.9, 90.59 ]
                        [54.3, 90.87 ]
                        [54.7, 91.04 ]
                        [55.3, 91.24 ]
                        [55.5, 91.26 ]
                        [63.7, 91.37 ]
                        [100.1097, 91.43 ]
*%----------------|------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-F-D" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
                        XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[74],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                                 LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                                 LGI=[315.806](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.007]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-F-D"], CINLET=[1.749](cms), NINLET=[1],
*                    MajNHYD=["S-1FO-F-DJ"]
*                    MinNHYD=["S-1FO-F-DN"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1FO-F-DS"], NHYDs to add=["S-1FO-F-DJ"+"S-1FO-F-DN"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1FO-F-DR"] ,NHYDin=["S-1FO-F-DS"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.1788, 0.5966 ]
*                                  [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1FoFDovf"]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-D8" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha), XIMP=[0.325], TIMP=[0.65], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.785](mm), SLPI=[0.75](%), LGI=[187.439](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D8"], CINLET=[2.279](cms), NINLET=[1],
*                    MajNHYD=["S-1-D8J"]
*                    MinNHYD=["S-1-D8N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D8S"], NHYDs to add=["S-1-D8J"+"S-1-D8N"]
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D"], NHYDs to add=["S-1-Okeefe"+"S-1"+"S-1-Fost"]
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D"], CINLET=[11.616](cms), NINLET=[1],
```

```
*                       MajNHYD=["S-1-D-MJ"]
*                       MinNHYD=["S-1-D-MN"]
*                       TMJSTO=[5974](cu-m)
*%----------------|-------------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-DEV"], NHYDs to add=["S-1-D-MJ"+"S-1-D-MN"]
*%----------------|-------------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-D8R"] ,NHYDin=["S-1-D8S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.0630, 0.2102 ]
*                                  [    -1   ,   -1    ]  (max twenty pts)
*                             NHYDovf=["S-1-D8Rovf"]
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-A" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
CONTINUOUS NASHYD       NHYD=["S-1-A"], DT=[1]min, AREA=[75.88](ha),
                        DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                        N=[3], TP=[0.619]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA, 2021-01-22  "W_CLAR_UNDE" (west of Clarke sub-catchment) discharges directly to the jock river through a road side ditch on the west side of Borrisokane road (station 6016)
CONTINUOUS NASHYD       NHYD=["W_CLAR_UNDE"], DT=[1]min, AREA=[35.65](ha),
                        DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                        N=[3], TP=[1.10]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_FO"], NHYDs to add=["N_FO"+"520-out"+"MS_P10"+"P10-OVF"+"W_CLAR_UNDE"+"S-1-FO-F-D"+"S-1-D8"+"S-1-A"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["SN_FO"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Foster Drain"]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Node Foster routed to Node at Cedarview Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
*#
ROUTE CHANNEL           NHYDout=["N_CE"] ,NHYDin=["SN_FO"] ,
                        RDT=[1](min),
                        CHLGTH=[159](m),  CHSLOPE=[0.0818](%),
                                          FPSLOPE=[0.0818](%),
                        SECNUM=[1.0],       NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-15.46
                          -0.035,26.55
                          0.050,116.76] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-645.23,  91.50]
                        [-391.20,  91.50]
                        [-91.00,  91.50]
```

```
                        [-85.52,  91.50]
                        [-15.46,  89.40]
                        [-9.79,  89.31]
                        [-3.22,  86.24]
                        [3.22,  85.07]
                        [10.96,  85.79]
                        [16.44,  86.49]
                        [26.55,  89.45]
                        [29.03,  90.27]
                        [35.76,  90.67]
                        [36.67,  91.00]
                        [108.08,  91.00]
                        [109.82,  90.50]
                        [112.04,  90.50]
                        [114.62,  91.00]
                        [116.76,  91.50]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#    Catchment S-1
*#    - To Jock River (north and south of Jock)
*#    - Primarily agricultural fields; portion of sand quarry
*%----------------|---------------------------------------------------------------|
*%    -2020-12-17 "S-1-Undev" and "S-1-Fost" was a part of Foster drain, they are below the foster pond. Now they are added to S-1 subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -2020-12-17 Change O-14 (it was part of Okeefe drain) to "S-1-Okeefe" and add it to S-1 subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -2020-12-17 Add "S-1-BCDC" as NASHYD
*%    -2020-12-17 all other S-1 subcatchment as STANDHYD with DUALHYD and ROUTE RESERVOIR
*%----------------|---------------------------------------------------------------|
*#################################################################################
*   -JFSA 2021-02-26  "S-1-A" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*CONTINUOUS NASHYD   NHYD=["S-1-A"], DT=[1]min, AREA=[75.88](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[0.619]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-B"], DT=[1]min, AREA=[55.36](ha),
                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                    N=[3], TP=[0.451]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*#    -  JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B. Change their TP values based on the new areas compared to the old ones.
*CONTINUOUS NASHYD   NHYD=["S-1-BCDC"], DT=[1]min, AREA=[134.9](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
```

```
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*#    -  JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and "S-1-BCDC-2" is part of "S-1-D2" and "S-1-D3"
*CONTINUOUS NASHYD      NHYD=["S-1-BCDC-1"], DT=[1]min, AREA=[0.3](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD      NHYD=["S-1-BCDC-2"], DT=[1]min, AREA=[1.3](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*#    -  JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
*CONTINUOUS NASHYD      NHYD=["S-1-BCDC-3"], DT=[1]min, AREA=[3.9](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-Okeefe" is a part of S-1 sub-catchment. It is moved to drain before station 7245 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-Okeefe"], DT=[1](min), AREA=[44.93](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[547.296](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["S-1-Okeefe"], CINLET=[4.796](cms), NINLET=[1],
*                       MajNHYD=["S-1-OkMJ"]
*                       MinNHYD=["S-1-OkMN"]
*                       TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-OkS"], NHYDs to add=["S-1-OkMJ"+"S-1-OkMN"]
*%-----------------|-------------------------------------------------------|
```

```
*ROUTE RESERVOIR     NHYDout=["S-1-OkSR"] ,NHYDin=["S-1-OkS"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.5370, 1.7917 ]
*                                  [    -1   , -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-OkSovf"]
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-Okeefe"], DT=[1]min, AREA=[44.93](ha),
*                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.049]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D1" is a part of S-1 sub-catchment. It is moved to drain before station 520 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
*                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[74],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                            LGI=[184.572](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-FO-D1"], CINLET=[0.605](cms), NINLET=[1],
*                    MajNHYD=["S-1-FO-D1J"]
*                    MinNHYD=["S-1-FO-D1N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|-------------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-FO-D1S"], NHYDs to add=["S-1-FO-D1N"+"S-1-FO-D1J"]
*%----------------|-------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-FO-D1R"] ,NHYDin=["S-1-FO-D1S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.0611, 0.2038 ]
*                                  [    -1   , -1    ]  (max twenty pts)
*                          NHYDovf=["S-1FOD1ovf"]
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
*                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D2" is a part of S-1 sub-catchment. It is moved to drain before station 980 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
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*                       XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[74],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                               LGI=[181.475](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-D2"], CINLET=[0.508](cms), NINLET=[1],
*                       MajNHYD=["S-1-FO-D2J"]
*                       MinNHYD=["S-1-FO-D2N"]
*                       TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-FO-D2S"], NHYDs to add=["S-1-FO-D2J"+"S-1-FO-D2N"]
*%-----------------|-------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-FO-D2R"] ,NHYDin=["S-1-FO-D2S"] ,
*                       RDT=[1](min),
*                               TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.0590, 0.1970 ]
*                                  [    -1   ,   -1    ]  (max twenty pts)
*                               NHYDovf=["S-1FOD2ovf"]
*%-----------------|-------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-F-D" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                       XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[74],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                               LGI=[315.806](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.007]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-F-D"], CINLET=[1.749](cms), NINLET=[1],
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*                       MajNHYD=["S-1FO-F-DJ"]
*                       MinNHYD=["S-1FO-F-DN"]
*                       TMSTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1FO-F-DS"], NHYDs to add=["S-1FO-F-DJ"+"S-1FO-F-DN"]
*%----------------|---------------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1FO-F-DR"] ,NHYDin=["S-1FO-F-DS"] ,
*                       RDT=[1](min),
*                               TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                       [ 0.0     , 0.0 ]
*                                       [ 0.1788, 0.5966 ]
*                                       [    -1   ,  -1    ]  (max twenty pts)
*                               NHYDovf=["S-1FoFDovf"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D1"], DT=[1](min), AREA=[21.67](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                       IAper=[4.67](mm), SLPP=[2.0](%),
                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                       IAimp=[1.57](mm), SLPI=[0.75](%),
                       LGI=[380.088](m), MNI=[0.013], SCI=[0](min),
                       Continuous simulation parameters:
                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                       InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*CONTINUOUS NASHYD      NHYD=["S-1-D1"], DT=[1]min, AREA=[21.67](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.066]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["S-1-D1"], CINLET=[2.482](cms), NINLET=[1],
*                       MajNHYD=["S-1-D1J"]
*                       MinNHYD=["S-1-D1N"]
*                       TMSTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-D1S"], NHYDs to add=["S-1-D1J"+"S-1-D1N"]
*%----------------|---------------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-D1R"] ,NHYDin=["S-1-D1S"] ,
*                       RDT=[1](min),
*                               TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                       [ 0.0     , 0.0 ]
*                                       [ 0.2590, 0.8642 ]
*                                       [    -1   ,  -1    ]  (max twenty pts)
*                               NHYDovf=["S-1-D1Rovf"]
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-D2" and "S-1-D3" are part of S-1 sub-catchment. They are
moved to drain before station 6215 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-D2"], DT=[1](min), AREA=[18.67](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[352.798](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
```

```
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD      NHYD=["S-1-D2"], DT=[1]min, AREA=[18.67](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.120]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["S-1-D2"], CINLET=[2.062](cms), NINLET=[1],
*                       MajNHYD=["S-1-D2J"]
*                       MinNHYD=["S-1-D2N"]
*                       TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-D2S"], NHYDs to add=["S-1-D2J"+"S-1-D2N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-D2R"] ,NHYDin=["S-1-D2S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [ 0.0     , 0.0 ]
*                                    [ 0.2231, 0.7445 ]
*                                    [    -1   , -1    ]  (max twenty pts)
*                             NHYDovf=["S-1-D2Rovf"]
*%----------------|---------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D3"], DT=[1](min), AREA=[6.79](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[212.760](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD      NHYD=["S-1-D3"], DT=[1]min, AREA=[6.79](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.281]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["S-1-D3"], CINLET=[0.719](cms), NINLET=[1],
*                       MajNHYD=["S-1-D3J"]
*                       MinNHYD=["S-1-D3N"]
*                       TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-D3S"], NHYDs to add=["S-1-D3J"+"S-1-D3N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-D3R"] ,NHYDin=["S-1-D3S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
```

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*                                       [ 0.0      , 0.0 ]
*                                       [ 0.0811, 0.2708 ]
*                                       [    -1    , -1     ]  (max twenty pts)
*                               NHYDovf=["S-1-D3Rovf"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D4"], DT=[1](min), AREA=[3.28](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[147.874](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D4"], DT=[1]min, AREA=[3.28](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D4"], CINLET=[0.373](cms), NINLET=[1],
*                    MajNHYD=["S-1-D4J"]
*                    MinNHYD=["S-1-D4N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D4S"], NHYDs to add=["S-1-D4J"+"S-1-D4N"]
*%----------------|---------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D4R"] ,NHYDin=["S-1-D4S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                          [ 0.0      , 0.0 ]
*                          [ 0.0392, 0.1308 ]
*                          [    -1    , -1     ]  (max twenty pts)
*                          NHYDovf=["S-1-D4Rovf"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D5"], DT=[1](min), AREA=[12.84](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[292.57](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D5"], DT=[1]min, AREA=[12.84](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
```

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*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D5"], CINLET=[1.395](cms), NINLET=[1],
*                    MajNHYD=["S-1-D5J"]
*                    MinNHYD=["S-1-D5N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D5S"], NHYDs to add=["S-1-D5J"+"S-1-D5N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D5R"] ,NHYDin=["S-1-D5S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                   (cms) - (ha-m)
*                                [ 0.0     , 0.0 ]
*                                [ 0.1535, 0.5120 ]
*                                [    -1   ,   -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D5Rovf"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D6"], DT=[1](min), AREA=[1.75](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[108.01](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D6"], DT=[1]min, AREA=[1.75](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D6"], CINLET=[0.218](cms), NINLET=[1],
*                    MajNHYD=["S-1-D6J"]
*                    MinNHYD=["S-1-D6N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D6S"], NHYDs to add=["S-1-D6J"+"S-1-D6N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D6R"] ,NHYDin=["S-1-D6S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                   (cms) - (ha-m)
*                                [ 0.0     , 0.0 ]
*                                [ 0.0209, 0.0698 ]
*                                [    -1   ,   -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D6Rovf"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D7"], DT=[1](min), AREA=[2.03](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[116.33](m), MNI=[0.013], SCI=[0](min),
```

```
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D7"], DT=[1]min, AREA=[2.03](ha),
*                    DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D7"], CINLET=[2.279](cms), NINLET=[1],
*                    MajNHYD=["S-1-D7J"]
*                    MinNHYD=["S-1-D7N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D7S"], NHYDs to add=["S-1-D7J"+"S-1-D7N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D7R"] ,NHYDin=["S-1-D7S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                     (cms) - (ha-m)
*                                   [ 0.0     , 0.0 ]
*                                   [ 0.0243, 0.0810 ]
*                                   [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D8Rovf"]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-D8" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-D8"], DT=[1](min), AREA=[5.27](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                    LGI=[187.439](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),   IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha),
*                    DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D8"], CINLET=[2.279](cms), NINLET=[1],
*                    MajNHYD=["S-1-D8J"]
*                    MinNHYD=["S-1-D8N"]
*                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-D8S"], NHYDs to add=["S-1-D8J"+"S-1-D8N"]
*%----------------|---------------------------------------------------------|
```

```
*ADD HYD              NHYDsum=["S-1-D"], NHYDs to add=["S-1-Okeefe"+"S-1"+"S-1-Fost"]
*%-----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D"], CINLET=[11.616](cms), NINLET=[1],
*                    MajNHYD=["S-1-D-MJ"]
*                    MinNHYD=["S-1-D-MN"]
*                    TMJSTO=[5974](cu-m)
*%-----------------|-------------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-DEV"], NHYDs to add=["S-1-D-MJ"+"S-1-D-MN"]
*%-----------------|-------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-D8R"] ,NHYDin=["S-1-D8S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [ 0.0     , 0.0 ]
*                                  [ 0.0630, 0.2102 ]
*                                  [    -1   ,   -1    ]  (max twenty pts)
*                          NHYDovf=["S-1-D8Rovf"]
*%-----------------|-------------------------------------------------------------|
*%-----------------|-------------------------------------------------------------|
*       -JFSA 2021-02-08 Clarke (MS_P2 and P2-OVF) and Clarke Undeveloped area (W_CLAR_UNDE) drain to Jock River at Station 5002 instead of Station 4534
*#     Catchment W_CLAR
*#     - To West Clarke Drain (south of the Jock)
*#     - Subdivision with 43% imp. as per Barrhaven South MSS
*#     - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)-11
*#     - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL
*#*************************************************************************
CONTINUOUS STANDHYD NHYD=["W_CLAR_MJ"], DT=[1]min, AREA=[1.772](ha),
                    XIMP=[0.46], TIMP=[0.59], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[109](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["W_CLAR_MJ"], CINLET=[0.213](cms), NINLET=[1],
*                    MajNHYD=["W_CLAR_MJj"]
*                    MinNHYD=["W_CLAR_MJn"]
*                    TMJSTO=[0.1](cu-m)
*%-----------------|-------------------------------------------------------------|
*# 5-Year + 12% Capture
ROUTE RESERVOIR     NHYDout=["W_CLAR_MJn"] ,NHYDin=["W_CLAR_MJ"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.0     , 0.0 ]
                                  [ 0.213 , 0.0001 ]
                                  [    -1   ,   -1    ]  (max twenty pts)
                          NHYDovf=["W_CLAR_MJj"] ,
*%-----------------|-------------------------------------------------------------|
*     -Clarke_All area from P 598(04)-11 = 120.207 ha, change to 127.298 ha based on GIS measurements,
*     -JFSA, 2021-01-19  update W_CLAR_ALL to (121.17-1.772=119.398) ha based on GIS measurements W_CLAR is 121.17 ha and W_CLAR_MJ is 1.772 ha
CONTINUOUS STANDHYD NHYD=["W_CLAR_ALL"], DT=[1]min, AREA=[119.398](ha),
                    XIMP=[0.60], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[892.18](m), MNI=[0.013], SCI=[0](min),
```

```
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["W_CLAR"], NHYDs to add=["W_CLAR_ALL"+"W_CLAR_MJj"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["W_CLAR"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows to West Clarke"]
*#*************************************************************************
*#     West Clarke Pond 2
*#     - Rating curve obtained from Barrhaven South MSS modeling
*#     - Tributary Drainage Area to MSS Pond 2 = 241 ha
*#*************************************************************************
ROUTE RESERVOIR         NHYDout=["MS_P2"],   NHYDin=["W_CLAR"],
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                   [    0.0 ,   0.0 ]
                                   [  0.128 ,  0.161 ]
                                   [  0.138 ,  0.409 ]
                                   [  0.148 ,  0.68 ]
                                   [  0.227 ,  0.931 ]
                                   [  0.354 ,  1.223 ]
                                   [  0.505 ,  1.52 ]
                                   [  0.666 ,  1.821 ]
                                   [  0.831 ,  2.123 ]
                                   [  0.995 ,  2.434 ]
                                   [  1.069 ,  2.583 ]
                                   [  1.51 ,  2.647 ]
                                   [  4.904 ,  2.861 ]
                                   [  13.048 ,  3.188 ]
                                   [  23.745 ,  3.523 ]
                                   [  36.474 ,  3.871 ]
                                   [  45.938 ,  4.127 ]
                                   [  61.652 ,  4.539 ]
                                   [   -1   ,   -1   ]  (max twenty pts)
                              NHYDovf=["P2-OVF"]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
*     -JFSA, 2021-01-22  "W_CLAR_UNDE" (west of Clarke sub-catchment) discharges
directly to the jock river through a road side ditch on the west side of Borrisokane
road (station 6016)
*CONTINUOUS NASHYD      NHYD=["W_CLAR_UNDE"], DT=[1]min, AREA=[35.65](ha),
*                       DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_CE"], NHYDs to
add=["N_CE"+"S-1-D4"+"S-1-D5"+"MS_P2"+"P2-OVF"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["SN_CE"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows before Station 5737 on Jock River"]
*%----------------|-------------------------------------------------------------|
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
*# 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the
HEC-RAS model
T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\HEC-RAS\JockLidar2005
*# JFSA 2021-03-02  change the slope to 0.0175% instead of 0.02593 to stabilize the model
```

```
ROUTE CHANNEL          NHYDout=["5737"] ,NHYDin=["SN_CE"] ,
                       RDT=[1](min),
                       CHLGTH=[270](m),   CHSLOPE=[0.0175](%),
                                             FPSLOPE=[0.0175](%),
                       SECNUM=[1.0],          NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.050,-24.04
                         -0.035,23.92
                         0.050,1130.8] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-1060.52, 94 ]
                       [-268.6, 91.5 ]
                       [-259.43, 91.5 ]
                       [-179.48, 91.5 ]
                       [-67.9, 91.5 ]
                       [-59.21, 91.5 ]
                       [-33.19, 91 ]
                       [-26.08, 90.5 ]
                       [-24.04, 90 ]
                       [-13.14, 86.77 ]
                       [0, 85 ]
                       [14.68, 86.74 ]
                       [23.92, 90 ]
                       [25.78, 90.5 ]
                       [31.91, 91 ]
                       [91.95, 91.5 ]
                       [772.15, 92 ]
                       [961.49, 92.5 ]
                       [1044.69, 93 ]
                       [1130.8, 95 ]
*%----------------|-------------------------------------------------------------|
ADD HYD                NHYDsum=["5002"], NHYDs to add=["5737"+"S-1-D1"+"S-1-D6"+"S-1-D7"]
*%----------------|-------------------------------------------------------------|
SAVE HYD               NHYD=["5002"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                       HYD_COMMENT=["Total Flows before Station 5002 on Jock River"]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
*# JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255
% so the model will be more stable and give reasonable results. It is justifiable as
ROUTE CHANNELs aren't well suited to really flat slopes.
*# JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one
with 825 m length so the model will be more stable
*# JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m That is
because of adding station 5737 between station 6016 and station 5002. Then the length
from station 5737 to station 5002 is 736 m Change the slope from 0.0255 % to 0.09511 %
*
ROUTE CHANNEL          NHYDout=["N_WCa"] ,NHYDin=["5002"] ,
                       RDT=[1](min),
                       CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                             FPSLOPE=[0.09511](%),
                       SECNUM=[1.0],          NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.050,-37.5
                         -0.035,37.50
                         0.050,157.05] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-601.81, 91.5]
                       [-37.50, 90.00]
                       [-19.61, 87.04]
                       [0.00, 85.70]
                       [14.87, 86.93]
                       [37.50, 90.00]
                       [38.54, 90.50]
                       [42.23, 91]
                       [157.05,91.50]
```

```
*                       [161.44,  91.50]
*                       [236.48,  93.00]
*                       [385.47,  92.50]
*                       [390.78,  92.50]
*%-----------------|-------------------------------------------------------------|
ROUTE CHANNEL           NHYDout=["N_WCb"] ,NHYDin=["N_WCa"] ,
                        RDT=[1](min),
                        CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                                 FPSLOPE=[0.09511](%),
                        SECNUM=[1.0],            NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-37.5
                          -0.035,37.50
                          0.050,157.05] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-601.81,  91.5]
                        [-37.50,  90.00]
                        [-19.61,  87.04]
                        [0.00,  85.70]
                        [14.87,  86.93]
                        [37.50,  90.00]
                        [38.54,  90.50]
                        [42.23,  91]
                        [157.05,91.50]
*%-----------------|-------------------------------------------------------------|
ROUTE CHANNEL           NHYDout=["N_WC"] ,NHYDin=["N_WCb"] ,
                        RDT=[1](min),
                        CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                                 FPSLOPE=[0.09511](%),
                        SECNUM=[1.0],            NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-37.5
                          -0.035,37.50
                          0.050,157.05] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-601.81,  91.5]
                        [-37.50,  90.00]
                        [-19.61,  87.04]
                        [0.00,  85.70]
                        [14.87,  86.93]
                        [37.50,  90.00]
                        [38.54,  90.50]
                        [42.23,  91]
                        [157.05,91.50]
*#*************************************************************************
*       -JFSA 2021-02-08 Clarke (MS_P2 and P2-OVF) and Clarke Undeveloped area
(W_CLAR_UNDE) drain to Jock River at Station 5002 instead of Station 4534
*ADD HYD                 NHYDsum=["SN_WC"], NHYDs to
add=["MS_P2"+"P2-OVF"+"N_WC"+"W_CLAR_UNDE"]
*%-----------------|-------------------------------------------------------------|
*SAVE HYD                NHYD=["SN_WC"],    # OF PCYCLES=[-1],  ICASEsh=[1]
*                       HYD_COMMENT=["Total Flows at West Clarke Pond Outlet"]
*%-----------------|-------------------------------------------------------------|
*# Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
*#
ROUTE CHANNEL           NHYDout=["N_KB"] ,NHYDin=["N_WC"] ,
                        RDT=[1](min),
                        CHLGTH=[1020](m),   CHSLOPE=[0.0498](%),
                                            FPSLOPE=[0.0498](%),
                        SECNUM=[1.0],            NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-23.63
                          -0.035,23.63
                          0.050,728.3] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
```

```
                        [-1082.01,94]
                        [-1028.17,92.5]
                        [-992.3,93.5]
                        [-279.34,90]
                        [-23.63,90]
                        [-13.45,87.13]
                        [-0.07,86.24]
                        [10.54,87.15]
                        [23.63,90]
                        [24.86,90.5]
                        [26.72,91]
                        [45.07,91.5]
                        [128.17,91.5]
                        [270.7,92.5]
                        [728.3,95]
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment KEN_BU
*#     - To Kennedy-Burnett SWM Facility
*#     - Outlets to Fraser-Clarke drain (north of the Jock)
*#     - Medium density residential subdivision
*     - Add Kennedy Burnett model (Convert PCSWMM from NOVATECH June, 2020 to SWMHYMO)
*#*****************************************************************************
*CONTINUOUS STANDHYD NHYD=["KEN_BU"], DT=[1]min, AREA=[281](ha),
*                        XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
*                        SCS curve number CN=[71],
*                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                                LGI=[1369](m), MNI=[0.013], SCI=[0](min),
*                        Continuous simulation parameters:
*                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#   Existing Kennedy-Burnett SWM Facility
*#     - Rating curve obtained from URTKBP
*#     - Tributary Drainage Area to Pond = 160 ha
*#*****************************************************************************
*ROUTE RESERVOIR     NHYDout=["KEN_P"],  NHYDin=["KEN_BU"],
*                        RDT=[1](min),
*                              TABLE of ( OUTFLOW-STORAGE ) values
*                                        (cms) - (ha-m)
*                                     [   0.0 ,  0.0 ]
*                                     [   0.13 , 0.26]
*                                     [   0.43 , 0.56]
*                                     [   0.67 , 0.90]
*                                     [   0.86 , 1.32]
*                                     [   1.01 , 1.79]
*                                     [   1.15 , 2.33]
*                                     [   -1   ,  -1  ]  (max twenty pts)
*                              NHYDovf=["KEN-OV"]
*%----------------|---------------------------------------------------------------|
*     -JFSA, 2021-01-19  update all KEN_BU areas based on GIS measurements
CONTINUOUS STANDHYD NHYD=["KB-01A"], DT=[1]min, AREA=[40.82](ha), XIMP=[0.097],
TIMP=[0.4], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[0.5](%),
                        LGI=[521.664](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
```

```
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-01A"], CINLET=[3.6](cms), NINLET=[1],
                    MajNHYD=["KB-01A-MJ"]
                    MinNHYD=["KB-01A-MN"]
                    TMJSTO=[4995](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-01A-S"], NHYDs to add=["KB-01A-MJ"+"KB-01A-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-01B"], DT=[1]min, AREA=[31.1](ha), XIMP=[0.1875],
TIMP=[0.375], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[0.42](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.785](mm), SLPI=[0.42](%),
                    LGI=[455.339](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-01B"], CINLET=[1.585](cms), NINLET=[1],
                    MajNHYD=["KB-01B-MJ"]
                    MinNHYD=["KB-01B-MN"]
                    TMJSTO=[6075](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-01B-S"], NHYDs to add=["KB-01B-MJ"+"KB-01B-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-01C"], DT=[1]min, AREA=[13.78](ha), XIMP=[0.2045],
TIMP=[0.409], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.785](mm), SLPI=[0.5](%),
                    LGI=[303.095](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-01C"], CINLET=[1.35](cms), NINLET=[1],
                    MajNHYD=["KB-01C-MJ"]
                    MinNHYD=["KB-01C-MN"]
                    TMJSTO=[1880](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-01C-S"], NHYDs to add=["KB-01C-MJ"+"KB-01C-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-03"], DT=[1]min, AREA=[84.78](ha), XIMP=[0.197],
TIMP=[0.394], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.785](mm), SLPI=[0.63](%),
                    LGI=[751.798](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-03"], CINLET=[5.27](cms), NINLET=[1],
                    MajNHYD=["KB-03-MJ"]
                    MinNHYD=["KB-03-MN"]
                    TMJSTO=[15500](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-03-S"], NHYDs to add=["KB-03-MJ"+"KB-03-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-04"], DT=[1]min, AREA=[6.95](ha), XIMP=[0.85],
```

```
      TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
3155                          Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                              F=[0.00](mm),
3156                          Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                              MNP=[0.250], SCP=[0](min),
3157                          Impervious areas: IAimp=[0.942](mm), SLPI=[0.5](%),
                              LGI=[215.252](m), MNI=[0.013], SCI=[0](min),
3158                          Continuous simulation parameters:
3159                          IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                              END=-1
3160      *%----------------|------------------------------------------------------------|
3161      COMPUTE DUALHYD     NHYDin=["KB-04"], CINLET=[0.503](cms), NINLET=[1],
3162                          MajNHYD=["KB-04-MJ"]
3163                          MinNHYD=["KB-04-MN"]
3164                          TMJSTO=[1972](cu-m)
3165      *%----------------|------------------------------------------------------------|
3166      ADD HYD             NHYDsum=["KB-04-S"], NHYDs to add=["KB-04-MJ"+"KB-04-MN"]
3167      *%----------------|------------------------------------------------------------|
3168      CONTINUOUS STANDHYD NHYD=["KB-05"], DT=[1]min, AREA=[5.19](ha), XIMP=[0.93],
      TIMP=[0.93], DWF=[0](cms), LOSS=[1]:
3169                          Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                              F=[0.00](mm),
3170                          Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                              MNP=[0.250], SCP=[0](min),
3171                          Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                              LGI=[186.011](m), MNI=[0.013], SCI=[0](min),
3172                          Continuous simulation parameters:
3173                          IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                              END=-1
3174      *%----------------|------------------------------------------------------------|
3175      *%----------------|------------------------------------------------------------|
3176      CONTINUOUS STANDHYD NHYD=["KB-06"], DT=[1]min, AREA=[12.93](ha), XIMP=[0.873],
      TIMP=[0.873], DWF=[0](cms), LOSS=[1]:
3177                          Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                              F=[0.00](mm),
3178                          Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                              MNP=[0.250], SCP=[0](min),
3179                          Impervious areas: IAimp=[0.942](mm), SLPI=[4.75](%),
                              LGI=[293.598](m), MNI=[0.013], SCI=[0](min),
3180                          Continuous simulation parameters:
3181                          IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                              END=-1
3182      *%----------------|------------------------------------------------------------|
3183      COMPUTE DUALHYD     NHYDin=["KB-06"], CINLET=[2.262](cms), NINLET=[1],
3184                          MajNHYD=["KB-06-MJ"]
3185                          MinNHYD=["KB-06-MN"]
3186                          TMJSTO=[1950](cu-m)
3187      *%----------------|------------------------------------------------------------|
3188      ADD HYD             NHYDsum=["KB-06-S"], NHYDs to add=["KB-06-MJ"+"KB-06-MN"]
3189      *%----------------|------------------------------------------------------------|
3190      CONTINUOUS STANDHYD NHYD=["KB-11"], DT=[1]min, AREA=[4.03](ha), XIMP=[0.675],
      TIMP=[0.675], DWF=[0](cms), LOSS=[1]:
3191                          Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                              F=[0.00](mm),
3192                          Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                              MNP=[0.250], SCP=[0](min),
3193                          Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                              LGI=[163.911](m), MNI=[0.013], SCI=[0](min),
3194                          Continuous simulation parameters:
3195                          IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                              END=-1
3196      *%----------------|------------------------------------------------------------|
3197      COMPUTE DUALHYD     NHYDin=["KB-11"], CINLET=[0.5773](cms), NINLET=[1],
3198                          MajNHYD=["KB-11-MJ"]
3199                          MinNHYD=["KB-11-MN"]
3200                          TMJSTO=[597](cu-m)
```

```
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["KB-11-S"], NHYDs to add=["KB-11-MJ"+"KB-11-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S1"], DT=[1]min, AREA=[4.99](ha), XIMP=[0.93], TIMP=[0.93],
DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                  LGI=[182.392](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-15"], DT=[1]min, AREA=[2.15](ha), XIMP=[0.79],
TIMP=[0.79], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%),
                  LGI=[119.722](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["KB-P1"], NHYDs to
add=["KB-01A-S"+"KB-01B-S"+"KB-01C-S"+"KB-03-S"+"KB-04-S"+"KB-05"+"KB-06-S"+"KB-11-S"+"KB
-15"+"S1"]
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR   NHYDout=["KB-P1R"],  NHYDin=["KB-P1"],
                  RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                 [   0.0 ,  0.0 ]
                                 [0.076, 0.003]
                                 [0.088, 0.006]
                                 [0.136, 0.011]
                                 [0.301, 0.017]
                                 [0.454, 0.027]
                                 [0.631, 0.041]
                                 [1.173, 0.068]
                                 [1.91, 0.111]
                                 [4.847, 0.231]
                                 [9.813, 0.436]
                                 [12.134, 0.617]
                                 [12.438, 0.732]
                                 [12.424, 0.811]
                                 [12.425, 0.894]
                                 [   -1  ,  -1  ]  (max twenty pts)
                        NHYDovf=["KB-P1ovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["KB-Pond1"], NHYDs to add=["KB-P1R"+"KB-P1ovf"]
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["KB-Pond1"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at KB first pond"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-07"], DT=[1]min, AREA=[10.86](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
```

```
                        LGI=[269.072](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-07"], CINLET=[2.094](cms), NINLET=[1],
                        MajNHYD=["KB-07-MJ"]
                        MinNHYD=["KB-07-MN"]
                        TMJSTO=[1378](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-07-S"], NHYDs to add=["KB-07-MJ"+"KB-07-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-08"], DT=[1]min, AREA=[6.61](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[209.921](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-08"], CINLET=[1.058](cms), NINLET=[1],
                        MajNHYD=["KB-08-MJ"]
                        MinNHYD=["KB-08-MN"]
                        TMJSTO=[787](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-08-S"], NHYDs to add=["KB-08-MJ"+"KB-08-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-09"], DT=[1]min, AREA=[2.6](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                        LGI=[131.656](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-10_1"], DT=[1]min, AREA=[2.37](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                        LGI=[125.698](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-10_2"], DT=[1]min, AREA=[1.14](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%), LGI=[87.178](m),
                        MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
```

```
                        END=-1
*%----------------|---------------------------------------------------------------|
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-12"], DT=[1]min, AREA=[4.86](ha), XIMP=[0.79],
TIMP=[0.79], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.099](mm), SLPI=[2.0](%),
                        LGI=[180.000](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-12"], CINLET=[0.8665](cms), NINLET=[1],
                    MajNHYD=["KB-12-MJ"]
                    MinNHYD=["KB-12-MN"]
                    TMJSTO=[632](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-12-S"], NHYDs to add=["KB-12-MJ"+"KB-12-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-13"], DT=[1]min, AREA=[10.19](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[260.640](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-13"], CINLET=[1.722](cms), NINLET=[1],
                    MajNHYD=["KB-13-MJ"]
                    MinNHYD=["KB-13-MN"]
                    TMJSTO=[1077](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-13-S"], NHYDs to add=["KB-13-MJ"+"KB-13-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-14"], DT=[1]min, AREA=[5.47](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[190.962](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["KB-14"], CINLET=[0.8734](cms), NINLET=[1],
                    MajNHYD=["KB-14-MJ"]
                    MinNHYD=["KB-14-MN"]
                    TMJSTO=[631](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-14-S"], NHYDs to add=["KB-14-MJ"+"KB-14-MN"]
*%----------------|---------------------------------------------------------------|
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-16_2"], DT=[1]min, AREA=[3.42](ha), XIMP=[0.71],
TIMP=[0.71], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
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                        MNP=[0.250], SCP=[0](min),
3345                    Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%),
                        LGI=[150.997](m), MNI=[0.013], SCI=[0](min),
3346                    Continuous simulation parameters:
3347                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3348    *%----------------|---------------------------------------------------------|
3349    ADD HYD           NHYDsum=["KB-P2"], NHYDs to
        add=["KB-Pond1"+"KB-07-S"+"KB-08-S"+"KB-09"+"KB-10_1"+"KB-10_2"+"KB-12-S"+"KB-13-S"+"KB-14-S"+"KB-16_2"]
3350    *%----------------|---------------------------------------------------------|
3351    ROUTE RESERVOIR   NHYDout=["KB-P2R"],  NHYDin=["KB-P2"],
3352                      RDT=[1](min),
3353                            TABLE of ( OUTFLOW-STORAGE ) values
3354                                      (cms) - (ha-m)
3355                                    [   0.0 ,  0.0 ]
3356                                    [0.053, 0.005]
3357                                    [0.132, 0.009]
3358                                    [0.269, 0.014]
3359                                    [0.455, 0.023]
3360                                    [0.699, 0.037]
3361                                    [0.947, 0.056]
3362                                    [1.853, 0.09]
3363                                    [2.712, 0.146]
3364                                    [6.626, 0.287]
3365                                    [11.228, 0.515]
3366                                    [14.885, 0.738]
3367                                    [16.473, 0.893]
3368                                    [17.311, 0.998]
3369                                    [17.633, 1.063]
3370                                    [17.634, 1.112]
3371                                    [   -1  ,  -1  ]  (max twenty pts)
3372                            NHYDovf=["KB-P2ovf"]
3373    *%----------------|---------------------------------------------------------|
3374    ADD HYD           NHYDsum=["KB-Pond2"], NHYDs to add=["KB-P2R"+"KB-P2ovf"]
3375    *%----------------|---------------------------------------------------------|
3376    SAVE HYD          NHYD=["KB-Pond2"],   # OF PCYCLES=[-1],  ICASEsh=[1]
3377                      HYD_COMMENT=["Total Flows at KB second pond"]
3378    *%----------------|---------------------------------------------------------|
3379    CONTINUOUS STANDHYD NHYD=["KB-16_1"], DT=[1]min, AREA=[2.8](ha), XIMP=[0.75],
        TIMP=[0.75], DWF=[0](cms), LOSS=[1]:
3380                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3381                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3382                    Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%),
                        LGI=[136.626](m), MNI=[0.013], SCI=[0](min),
3383                    Continuous simulation parameters:
3384                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3385    *%----------------|---------------------------------------------------------|
3386    ADD HYD           NHYDsum=["KB-P3"], NHYDs to add=["KB-Pond2"+"KB-16_1"]
3387    *%----------------|---------------------------------------------------------|
3388    *%----------------|---------------------------------------------------------|
3389    * One inflow node from pond 3 is added to the model (ROUTE RESERVOIR)
3390    * Another inflow node from right side of pond 3 is not added to the model
3391    ROUTE RESERVOIR   NHYDout=["KB-P3R"],  NHYDin=["KB-P3"],
3392                      RDT=[1](min),
3393                            TABLE of ( OUTFLOW-STORAGE ) values
3394                                      (cms) - (ha-m)
3395                                    [   0.0 ,  0.0 ]
3396                                    [0.051, 0.002]
3397                                    [0.048, 0.003]
3398                                    [0.057, 0.029]
3399                                    [0.089, 0.045]
3400                                    [0.133, 0.069]
```

```
                                        [0.199,0.106]
                                        [0.321,0.172]
                                        [1.029,0.306]
                                        [4.036,0.527]
                                        [8.332,0.761]
                                        [11.727,0.941]
                                        [14.125,1.067]
                                        [15.675,1.149]
                                        [16.555,1.196]
                                        [16.911,1.214]
                                        [   -1   ,   -1   ]   (max twenty pts)
                              NHYDovf=["KB-P3ovf"]
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["KB-Pond3"], NHYDs to add=["KB-P3R"+"KB-P3ovf"]
*%----------------|---------------------------------------------------------|
SAVE HYD          NHYD=["KB-Pond3"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at KB third pond"]
*%----------------|---------------------------------------------------------|
*#*********************************************************************
*#     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report June, 2020)
*#     - TO FRASER-CLARKE DRAIN
*#*********************************************************************
CONTINUOUS STANDHYD NHYD=["FC-01"], DT=[1]min, AREA=[8.03](ha), XIMP=[0.47], TIMP=[0.47], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%), LGI=[231.373](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["FC-01"], CINLET=[0.756](cms), NINLET=[1],
                  MajNHYD=["FC-01-MJ"]
                  MinNHYD=["FC-01-MN"]
                  TMJSTO=[714](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["FC-01-S"], NHYDs to add=["FC-01-MJ"+"FC-01-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["FC-02"], DT=[1]min, AREA=[16.05](ha), XIMP=[0.93], TIMP=[0.93], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%), LGI=[327.109](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["FC-02"], CINLET=[1.159](cms), NINLET=[1],
                  MajNHYD=["FC-02-MJ"]
                  MinNHYD=["FC-02-MN"]
                  TMJSTO=[2385](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["FC-02-S"], NHYDs to add=["FC-02-MJ"+"FC-02-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["FC-03"], DT=[1]min, AREA=[7.37](ha), XIMP=[0.64], TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
```

```
                        MNP=[0.250], SCP=[0](min),
3454                    Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[221.660](m), MNI=[0.013], SCI=[0](min),
3455                    Continuous simulation parameters:
3456                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3457    *%--------------|-------------------------------------------------------------|
3458    COMPUTE DUALHYD     NHYDin=["FC-03"], CINLET=[0.358](cms), NINLET=[1],
3459                        MajNHYD=["FC-03-MJ"]
3460                        MinNHYD=["FC-03-MN"]
3461                        TMJSTO=[1131](cu-m)
3462    *%--------------|-------------------------------------------------------------|
3463    ADD HYD             NHYDsum=["FC-03-S"], NHYDs to add=["FC-03-MJ"+"FC-03-MN"]
3464    *%--------------|-------------------------------------------------------------|
3465    CONTINUOUS STANDHYD NHYD=["FC-04"], DT=[1]min, AREA=[12.87](ha), XIMP=[0.64],
    TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
3466                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3467                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3468                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[292.916](m), MNI=[0.013], SCI=[0](min),
3469                        Continuous simulation parameters:
3470                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3471    *%--------------|-------------------------------------------------------------|
3472    COMPUTE DUALHYD     NHYDin=["FC-04"], CINLET=[0.741](cms), NINLET=[1],
3473                        MajNHYD=["FC-04-MJ"]
3474                        MinNHYD=["FC-04-MN"]
3475                        TMJSTO=[1794](cu-m)
3476    *%--------------|-------------------------------------------------------------|
3477    ADD HYD             NHYDsum=["FC-04-S"], NHYDs to add=["FC-04-MJ"+"FC-04-MN"]
3478    *%--------------|-------------------------------------------------------------|
3479    *#*************************************************************************
3480    *#     PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling
    Approach, NOVATECH Report June, 2020)
3481    *#     - TO JOCK RIVER
3482    *#*************************************************************************
3483    CONTINUOUS STANDHYD NHYD=["JR-01"], DT=[1]min, AREA=[8.24](ha), XIMP=[0.64],
    TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
3484                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3485                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3486                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[234.379](m), MNI=[0.013], SCI=[0](min),
3487                        Continuous simulation parameters:
3488                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3489    *%--------------|-------------------------------------------------------------|
3490    COMPUTE DUALHYD     NHYDin=["JR-01"], CINLET=[0.563](cms), NINLET=[1],
3491                        MajNHYD=["JR-01-MJ"]
3492                        MinNHYD=["JR-01-MN"]
3493                        TMJSTO=[1040](cu-m)
3494    *%--------------|-------------------------------------------------------------|
3495    ADD HYD             NHYDsum=["JR-01-S"], NHYDs to add=["JR-01-MJ"+"JR-01-MN"]
3496    *%--------------|-------------------------------------------------------------|
3497    CONTINUOUS STANDHYD NHYD=["JR-02"], DT=[1]min, AREA=[1.59](ha), XIMP=[0.64],
    TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
3498                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3499                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3500                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[102.956](m), MNI=[0.013], SCI=[0](min),
3501                        Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["JR-02"], CINLET=[0.153](cms), NINLET=[1],
                        MajNHYD=["JR-02-MJ"]
                        MinNHYD=["JR-02-MN"]
                        TMJSTO=[153](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["JR-02-S"], NHYDs to add=["JR-02-MJ"+"JR-02-MN"]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
*#     Catchment FRASER
*#     - To Fraser-Clarke drain (north of the Jock)
*#     - Developed land with assumed 43% imp.
*#     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
*#     - 2020-12-17 All Fraser is undeveloped (Nashyd)
*#*************************************************************************
CONTINUOUS NASHYD       NHYD=["FRASER-DRN"], DT=[1]min, AREA=[13.65](ha),
                        DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                        N=[3], TP=[0.4258]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*
CONTINUOUS STANDHYD     NHYD=["FRASER-D"], DT=[1]min, AREA=[21.61](ha),
                        XIMP=[0.585], TIMP=[0.585], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[80],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[379.561](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["FRASER-D"], CINLET=[2.281](cms), NINLET=[1],
                        MajNHYD=["FRASER-J"]
                        MinNHYD=["FRASER-N"]
                        TMJSTO=[9999999](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["FRASER-S"], NHYDs to add=["FRASER-J"+"FRASER-N"]
*%----------------|-------------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["MS_P20"],   NHYDin=["FRASER"],
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                [    0.0 ,  0.0 ]
*                                [    0.04 , 0.36]
*                                [    -1   ,  -1  ]  (max twenty pts)
*                          NHYDovf=["P20-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["4241"], NHYDs to
add=["KB-Pond3"+"S-1-B"+"FRASER-DRN"+"FRASER-S"+"N_KB"+"FC-01-S"+"FC-02-S"+"FC-03-S"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["4241"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Ken-Burnett Outlet"]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Node Ken-Burnett to station 3633
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
*#
```

```
ROUTE CHANNEL          NHYDout=["4241-out"], NHYDin=["4241"],   RDT=[1](min),
                       CHLGTH=[294](m),   CHSLOPE=[0.1088](%), FPSLOPE=[0.1088](%),
                       SECNUM=[1.0],         NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=[0.05, -20.12
                                                -0.035, 45.26
                                                 0.05, 403.84] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=[]
                       [-909.72, 95 ]
                       [-907.09, 94.5 ]
                       [-904.65, 94 ]
                       [-902.26, 93.5 ]
                       [-44.51, 91.5 ]
                       [-25.1, 91.5 ]
                       [-20.98, 91 ]
                       [-20.61, 90.5 ]
                       [-20.12, 90 ]
                       [-6.13, 87.26 ]
                       [17.51, 86.56 ]
                       [31.37, 87.2 ]
                       [45.26, 90 ]
                       [50.41, 90.5 ]
                       [63.06, 91 ]
                       [134.5, 91.5 ]
                       [190.63, 92 ]
                       [251.98, 92.5 ]
                       [321.32, 93.5 ]
                       [403.84, 95 ]
*%-----------------|-------------------------------------------------------------|
ADD HYD                NHYDsum=["SN_KB"], NHYDs to
add=["4241-out"+"FC-04-S"+"JR-01-S"+"JR-02-S"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD               NHYD=["SN_KB"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                       HYD_COMMENT=["Total Flows before Station 3633]
*%-----------------|-------------------------------------------------------------|
*# Hydrograph from Station 3633 to Node Todd
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
*# JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and
change the slope from 0.0498% to 0.24671% That is because of adding station 4241
between station 4534 and  station 3633
*#
ROUTE CHANNEL          NHYDout=["N_TO"], NHYDin=["SN_KB"],   RDT=[1](min),
                       CHLGTH=[608](m),   CHSLOPE=[0.24671](%), FPSLOPE=[0.24671](%),
                       SECNUM=[1.0],         NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=[0.05, -23.74
                                                -0.035, 23.74
                                                 0.05, 26.50] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=[]
                       -29.24, 91.0
                       -27.41, 90.5
                       -25.64, 90
                       -23.74, 89.5
                       -22, 89.26
                       -20, 88.51
                       -19, 88.32
                       -15, 88.1
                       -10, 88.11
                       -5, 88.17
                       0, 88.27
                       5, 88.19
                       10, 88.06
                       15, 88.48
                       16, 88.7
                       23.74, 89.5
                       24.68, 90
                       25.57, 90.5
                       26.50, 91.0
```

```
*                                                [-29.24, 91]
*                                                [-27.41, 90.5]
*                                                [-25.64, 90]
*                                                [-23.74, 89.5]
*                                                [-22, 89. 26]
*                                                [-20, 88.51]
*                                                [-19, 88.32]
*                                                [-15, 88.1]
*                                                [-10, 88.11]
*                                                [-5, 88.17]
*                                                [0, 88.27]
*                                                [5, 88.19]
*                                                [10, 88.06]
*                                                [15, 88.48]
*                                                [16, 88.7]
*                                                [23.74, 89.5]
*                                                [24.68, 90]
*                                                [25.57, 90.5]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment Greenbank
*#     - To Greenbank Drain (south of the Jock)
*#     - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
*#     - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["Greenbank"], DT=[1]min, AREA=[36.6](ha),
                    XIMP=[0.639], TIMP=[0.682], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[493.96](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["GreenB_MN"] ,NHYDin=["Greenbank"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                   [    0.0 , 0.0    ]
                                   [ 0.033 , 0.084 ]
                                   [ 0.039 , 0.201 ]
                                   [ 0.113 , 0.292 ]
                                   [ 0.237 , 0.386 ]
                                   [ 0.382 , 0.484 ]
                                   [ 0.539 , 0.585 ]
                                   [ 0.7 , 0.692 ]
                                   [ 0.86 , 0.804 ]
                                   [ 4.684 , 0.922 ]
                                   [ 11.539 , 1.052 ]
                                   [ 20.867 , 1.168 ]
                                   [ 103.616 , 1.974 ]
                                   [    -1  ,  -1    ]  (max twenty pts)
                          NHYDovf=["GreenB_MI"] ,
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["GreenB"], NHYDs to add=["N_TO"+"GreenB_MI"+"GreenB_MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["GreenB"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Greenbank Drain"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment TODD
*#     - To Todd Drain (south of the Jock)
```

```
*#     - Subdivision with 43% imp. as per Barrhaven South MSS
*#     - 2020-11-30 increase imp. based on P598(04)-11
*#     - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on P598(04)-11
*#     - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
*#**************************************************************************
*#     - JFSA 2021-01-19 add "TODD_MN1" as part of Clarke("W_CLAR_MJ") and remove it from Todd
*CONTINUOUS STANDHYD NHYD=["TODD_MN1"], DT=[1]min, AREA=[1.772](ha),
*                    XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[77],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                            LGI=[108.689](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MN2"], DT=[1]min, AREA=[2.1](ha),
                    XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[118.322](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MN3"], DT=[1]min, AREA=[0.117](ha),
                    XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[27.928](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MJ"], DT=[1]min, AREA=[30.230](ha),
                    XIMP=[0.52], TIMP=[0.64], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[448.925](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
*     -JFSA, 2021-01-19  update "TODD_ALL" area from 108.741 ha to 112.908 ha based on GIS measurements (148.41-30.23-0.117-2.1-3.055=112.908 ha)
CONTINUOUS STANDHYD NHYD=["TODD_ALL"], DT=[1]min, AREA=[112.908](ha),
                    XIMP=[0.52], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[867.594](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_P"], DT=[1]min, AREA=[3.055](ha),
                        XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[142.712](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|------------------------------------------------------------|
*%----------------|------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_DEVL" is part of the Corrigan sub-catchment because it drains to Corrigan SWM as per geoOttawa.ca Feb. 2021. "TODD_DEVL" now is called "corr1" and its parameters remain the same.
*CONTINUOUS STANDHYD NHYD=["TODD_DEVL"], DT=[1]min, AREA=[15.87](ha),
*                       XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[77],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                               LGI=[325.27](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),   IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%----------------|------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_UnD" is part of the Corrigan sub-catchment. "TODD_UnD" now is called "corr2" and its parameters remain the same.
*CONTINUOUS NASHYD   NHYD=["TODD_UnD"], DT=[1]min, AREA=[12.47](ha),
*                       DWF=[0](cms), CN/C=[77],   IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*# 5-Year + 12% Capture
*COMPUTE DUALHYD     NHYDin=["TODD_MJ"], CINLET=[3.314](cms), NINLET=[1],
*                       MajNHYD=["TODD_MJj"]
*                       MinNHYD=["TODD_MJn"]
*                       TMISTO=[0.1](cu-m)
ROUTE RESERVOIR     NHYDout=["TODD_MJn"] ,NHYDin=["TODD_MJ"] ,
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [     0.0 ,  0.0     ]
                                    [  3.314  ,  0.0001  ]
                                    [     -1  ,    -1    ]  (max twenty pts)
                              NHYDovf=["TODD_MJj"] ,
*%----------------|------------------------------------------------------------|
*# 5-Year + 12% Capture
*COMPUTE DUALHYD     NHYDin=["TODD_MN1"], CINLET=[0.227](cms), NINLET=[1],
*                       MajNHYD=["TODD_MN1j"]
*                       MinNHYD=["TODD_MN1n"]
*                       TMISTO=[0.1](cu-m)
*ROUTE RESERVOIR     NHYDout=["TODD_MN1n"] ,NHYDin=["TODD_MN1"] ,
```

```
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                   [     0.0 , 0.0     ]
*                                   [ 0.227   , 0.0001  ]
*                                   [     -1  ,  -1     ]  (max twenty pts)
*                             NHYDovf=["TODD_MN1j"] ,
*%-----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["TODD_MN2"], CINLET=[0.268](cms), NINLET=[1],
*                     MajNHYD=["TODD_MN2j"]
*                     MinNHYD=["TODD_MN2n"]
*                     TMISTO=[0.1](cu-m)
ROUTE RESERVOIR      NHYDout=["TODD_MN2n"] ,NHYDin=["TODD_MN2"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                 [     0.0 , 0.0     ]
                                 [ 0.268   , 0.0001  ]
                                 [     -1  ,  -1     ]  (max twenty pts)
                           NHYDovf=["TODD_MN2j"] ,
*%-----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["TODD_MN3"], CINLET=[0.016](cms), NINLET=[1],
*                     MajNHYD=["TODD_MN3j"]
*                     MinNHYD=["TODD_MN3n"]
*                     TMISTO=[0.1](cu-m)
ROUTE RESERVOIR      NHYDout=["TODD_MN3n"] ,NHYDin=["TODD_MN3"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                 [     0.0 , 0.0     ]
                                 [ 0.016   , 0.0001  ]
                                 [     -1  ,  -1     ]  (max twenty pts)
                           NHYDovf=["TODD_MN3j"] ,
*%-----------------|-------------------------------------------------------------|
*    -JFSA 2021-01-19 move A2 from Corrigan sub-catchment to Todd sub-catchment so the
major system from A2 can be added to Todd
CONTINUOUS STANDHYD NHYD=["A2"], DT=[1]min, AREA=[25.5](ha),
                     XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
                     SCS curve number CN=[75],
                     Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                     Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[566](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[18](hrs),   END=-1
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["A2"], CINLET=[1.818](cms), NINLET=[1],
                     MajNHYD=["A2-MJ"]
                     MinNHYD=["A2-MN"]
                     TMISTO=[924](cu-m)
*%-----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["TODD"], NHYDs to
add=["TODD_MN2n"+"TODD_MN3n"+"TODD_MJj"+"TODD_P"+"TODD_ALL"+"W_CLAR_MJn"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["TODD"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Todd Drain"]
*%-----------------|-------------------------------------------------------------|
*#*********************************************************************
*#    Todd Pond 3
*#    - Rating curve obtained from Barrhaven South MSS modeling
*#    - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
*#*********************************************************************
ROUTE RESERVOIR      NHYDout=["MS_P3"],   NHYDin=["TODD"],
                     RDT=[1](min),
```

```
                                TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [    0.0 ,   0.0 ]
                                [ 0.014 , 0.155 ]
                                [ 0.048 , 0.394 ]
                                [ 0.061 , 0.56 ]
                                [ 0.08 , 0.909 ]
                                [ 0.088 , 1.089 ]
                                [ 0.109 , 1.652 ]
                                [ 0.118 , 1.952 ]
                                [ 0.122 , 2.099 ]
                                [ 1.972 , 2.269 ]
                                [ 9.135 , 2.598 ]
                                [ 15.608 , 2.826 ]
                                [ 19.256 , 2.942 ]
                                [ 27.282 , 3.181 ]
                                [ 40.957 , 3.55 ]
                                [ 56.372 , 3.929 ]
                                [ 73.349 , 4.317 ]
                                [ 85.469 , 4.579 ]
                                [ 104.771 , 4.977 ]
                                [   -1  ,  -1  ]  (max twenty pts)
                            NHYDovf=["P3-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_TO"], NHYDs to
add=["GreenB"+"MS_P3"+"P3-OVF"+"TODD_MN2j"+"A2-MJ"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["SN_TO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Todd Drain"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Todd Drain routed to Corrigan Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*# 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so
the model will be more stable and give reasonable results. It is justifiable as ROUTE
CHANNELs aren't well suited to really flat slopes.
*
ROUTE CHANNEL       NHYDout=["N_TO"] ,NHYDin=["SN_TO"] ,
                    RDT=[1](min),
                    CHLGTH=[280](m),   CHSLOPE=[0.05](%),
                                         FPSLOPE=[0.05](%),
                    SECNUM=[1.0],        NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.075,-17.72
                      -0.045,17.72
                      0.075,80.62] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-83.32, 90.00]
                    [-81.36, 89.50]
                    [-79.12, 89.00]
                    [-76.13, 88.50]
                    [-20.46, 88.00]
                    [-19.36, 87.50]
                    [-18.51, 87.00]
                    [-17.72, 86.50]
                    [-11.95, 85.24]
                    [-0.11, 85.12]
                    [11.49, 85.20]
                    [17.72, 86.50]
                    [19.74, 87.00]
                    [21.22, 87.50]
                    [22.68, 88.00]
                    [24.28, 88.50]
                    [26.79, 89.00]
                    [71.98, 90.00]
                    [80.62, 90.50]
```

```
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["N_TO"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total inflows at Station 2462"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    Catchment CORRIG
*#    - To Corrigan Drain (south of the Jock)
*#    - Primarily Developed (medium density)
*#    - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
*#*****************************************************************************
*ROUTE RESERVOIR   NHYDout=["MS_P1"],  NHYDin=["CORRIG"],
*                  RDT=[1](min),
*                        TABLE of ( OUTFLOW-STORAGE ) values
*                                 (cms) - (ha-m)
*                                 [   0.0 ,  0.0 ]
*                                 [   0.06 , 0.58]
*                                 [   -1  ,  -1  ]  (max twenty pts)
*                        NHYDovf=["P1-OVF"]
*%----------------|-------------------------------------------------------------|
*ADD HYD           NHYDsum=["SN_CO"], NHYDs to add=["N_TO"+"P1-OVF"+"MS_P1"]
*%----------------|-------------------------------------------------------------|
*SAVE HYD          NHYD=["SN_CO"],    # OF PCYCLES=[-1],  ICASEsh=[1]
*                  HYD_COMMENT=["Total Flows at Corrigan Drain"]
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_DEVL" is part of the Corrigan sub-catchment because it drains to Corrigan SWM as per geoOttawa.ca Feb. 2021. "TODD_DEVL" now is called "corr1" and its parameters remain the same.
CONTINUOUS STANDHYD NHYD=["corr1"], DT=[1]min, AREA=[15.87](ha),
                  XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[77],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[325.27](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*      -JFSA 2021-02-23 add DUALHYD for "corr1". "corr1" DUALHYD Parameters are the same as A2 DUALHYD Parameters because A2 is the nearest sub-catchment to "corr1".
*       At the same time, Corrigan Report, IBI group 2008 has no DUALHYD Parameters for A1-Corrig
COMPUTE DUALHYD   NHYDin=["corr1"], CINLET=[1.818](cms), NINLET=[1],
                  MajNHYD=["corr1-MJ"]
                  MinNHYD=["corr1-MN"]
                  TMISTO=[924](cu-m)
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_UnD" is part of the Corrigan sub-catchment. "TODD_UnD" now is called "corr2" and its parameters remain the same.
CONTINUOUS NASHYD NHYD=["corr2"], DT=[1]min, AREA=[12.47](ha),
                  DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                  N=[3], TP=[1.10]hrs,
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[12](hrs)
                  Baseflow simulation parameters:
                  BaseFlowOption=[1] ,
                  InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                  VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-19 change A1-Corrig to be developed as per geoottawa website and apply the parameters of A2, the nearest sub-catchment to A1-Corrig, LGI is calculated based on A1-Corrig area
*     -JFSA 2021-01-19 update all Corrigan areas based on GIS measurements, and keep
```

```
LGI as it is from Corrigan Report, IBI Group, 2008 because LGI calculated is less than LGI from the Corrigan Report
CONTINUOUS STANDHYD NHYD=["A1-Corrig"], DT=[1]min, AREA=[15.75](ha),
                    XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[324.037](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*
*       -JFSA 2021-01-25 add DUALHYD for A1-Corrig. A1-Corrig DUALHYD Parameters are the same as A2 DUALHYD Parameters because A2 is the nearest sub-catchment to A1-Corrig.
*        At the same time, Corrigan Report, IBI group 2008 has no DUALHYD Parameters for A1-Corrig
COMPUTE DUALHYD     NHYDin=["A1-Corrig"], CINLET=[1.818](cms), NINLET=[1],
                    MajNHYD=["A1-MJ"]
                    MinNHYD=["A1-MN"]
                    TMISTO=[924](cu-m)
*%-----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["A1-Corrig"], DT=[1]min, AREA=[15.75](ha),
*                   DWF=[0](cms),  CNVC=[66], IA=[2.5](mm),
*                   N=[3.0], TP=[0.36]hrs,
*                   Continuous simulation parameters:
*                   IaRECper=[4](hrs),
*                   SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                   InterEventTime=[12](hrs)
*                   Baseflow simulation parameters:
*                   BaseFlowOption=[1] ,
*                   InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                   VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["B1"], DT=[1]min, AREA=[2.77](ha),
                    DWF=[0](cms),  CNVC=[56], IA=[2.5](mm),
                    N=[3.0], TP=[0.23]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A4"], DT=[1]min, AREA=[1.27](ha),
                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[253](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A4"], CINLET=[0.405](cms), NINLET=[1],
                    MajNHYD=["A4-MJ"]
                    MinNHYD=["A4-MN"]
                    TMISTO=[68](cu-m)
*%-----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["MH101"], NHYDs to
add=["A1-MJ"+"A1-MN"+"corr1-MJ"+"corr1-MN"+"corr2"+"B1"+"A4-MN"]
```

```
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["MH101"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at MH101"]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["101-102"], RNUMBER=[1.0], PDIAM=[1050](mm),
                  PLNGTH=[368](m), PROUGH=[0.013], PSLOPE=[0.0054](m/m),
                  NHYDin=["MH101"], RDT=[1]
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-01-19 move A2 from Corrigan sub-catchment to Todd sub-catchment so the
major system from A2 can be added to Todd
*CONTINUOUS STANDHYD NHYD=["A2"], DT=[1]min, AREA=[25.5](ha),
*                  XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
*                  SCS curve number CN=[75],
*                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                          LGI=[566](m), MNI=[0.013], SCI=[0](min),
*                  Continuous simulation parameters:
*                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                  InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD   NHYDin=["A2"], CINLET=[1.818](cms), NINLET=[1],
*                  MajNHYD=["A2-MJ"]
*                  MinNHYD=["A2-MN"]
*                  TMISTO=[924](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["MH102"], NHYDs to add=["A2-MN"+"101-102"]
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["MH102"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at MH102"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A5"], DT=[1]min, AREA=[1.6](ha),
                  XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[300](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["A5T"], NHYDs to add=["A4-MJ"+"A5"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["A5T"], CINLET=[0.357](cms), NINLET=[1],
                  MajNHYD=["A5-MJ"]
                  MinNHYD=["A5-MN"]
                  TMISTO=[60](cu-m)
*%----------------|-------------------------------------------------------------|
*   -JFSA Jan. 2021, A3 is a part of Todd so it is removed
*   -JFSA Jan. 2021, "A2-MJ" added to "Todd"
*CONTINUOUS STANDHYD NHYD=["A3"], DT=[1]min, AREA=[18.4](ha),
*                  XIMP=[0.58], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                  SCS curve number CN=[75],
*                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                          LGI=[450](m), MNI=[0.013], SCI=[0](min),
*                  Continuous simulation parameters:
*                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                  InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*ADD HYD           NHYDsum=["A3-A2MJ"], NHYDs to add=["A2-MJ"+"A3"]
```

```
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD    NHYDin=["A3-A2MJ"], CINLET=[2.208](cms), NINLET=[1],
*                   MajNHYD=["A3R-MJ"]
*                   MinNHYD=["A3R-MN"]
*                   TMJSTO=[908](cu-m)
*%----------------|-------------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["102-103"], RNUMBER=[1.0], PDIAM=[1500](mm),
                    PLNGTH=[504](m), PROUGH=[0.013], PSLOPE=[0.0028](m/m),
                    NHYDin=["MH102"], RDT=[1]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["MH103"], NHYDs to add=["102-103"+"A5-MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["MH103"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH103"]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["103-104"], RNUMBER=[1.0], PDIAM=[1650](mm),
                    PLNGTH=[438](m), PROUGH=[0.013], PSLOPE=[0.0046](m/m),
                    NHYDin=["MH103"], RDT=[1]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A6"], DT=[1]min, AREA=[1.56](ha),
                    XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[280](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["A6T"], NHYDs to add=["A5-MJ"+"A6"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A6T"], CINLET=[0.357](cms), NINLET=[1],
                    MajNHYD=["A6-MJ"]
                    MinNHYD=["A6-MN"]
                    TMJSTO=[60](cu-m)
*%----------------|-------------------------------------------------------------|
*   -JFSA Jan. 2021, A7-corrig is a part of Todd so it is removed
*CONTINUOUS STANDHYD NHYD=["A7-corrig"], DT=[1]min, AREA=[11.8](ha),
*                   XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
*                   SCS curve number CN=[75],
*                   Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                           LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                   Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                           LGI=[438](m), MNI=[0.013], SCI=[0](min),
*                   Continuous simulation parameters:
*                   IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                   SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                   InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*ADD HYD             NHYDsum=["A7-A3RMJ"], NHYDs to add=["A3R-MJ"+"A7-corrig"]
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["A7-A3RMJ"], CINLET=[1.003](cms), NINLET=[1],
*                   MajNHYD=["A7R-MJ"]
*                   MinNHYD=["A7R-MN"]
*                   TMJSTO=[496](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["MH104"], NHYDs to add=["A6-MN"+"103-104"+"TODD_MJn"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["MH104"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH104"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B2"], DT=[1]min, AREA=[12.31](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
```

```
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[417](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B2"], CINLET=[1.029](cms), NINLET=[1],
                    MajNHYD=["B2-MJ"]
                    MinNHYD=["B2-MN"]
                    TMISTO=[508](cu-m)
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["315-333"], RNUMBER=[1.0], PDIAM=[1200](mm),
                    PLNGTH=[254](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["B2-MN"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B3"], DT=[1]min, AREA=[5.59](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[345](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B3"], CINLET=[0.459](cms), NINLET=[1],
                    MajNHYD=["B3-MJ"]
                    MinNHYD=["B3-MN"]
                    TMISTO=[227](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["MH333"], NHYDs to add=["B3-MN"+"315-333"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["MH333"],   # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH333"]
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["333-335"], RNUMBER=[1.0], PDIAM=[1200](mm),
                    PLNGTH=[251](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["MH333"], RDT=[1]
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["335-338"], RNUMBER=[1.0], PDIAM=[1200](mm),
                    PLNGTH=[185](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["333-335"], RDT=[1]
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["338-340"], RNUMBER=[1.0], PDIAM=[1350](mm),
                    PLNGTH=[233](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["335-338"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B4"], DT=[1]min, AREA=[7.6](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[388](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B4"], CINLET=[0.655](cms), NINLET=[1],
                    MajNHYD=["B4-MJ"]
```

```
4258                        MinNHYD=["B4-MN"]
4259                        TMISTO=[323](cu-m)
4260    *%----------------|-------------------------------------------------------------|
4261    ADD HYD             NHYDsum=["MH340"], NHYDs to add=["338-340"+"B4-MN"]
4262    *%----------------|-------------------------------------------------------------|
4263    SAVE HYD            NHYD=["MH340"],   # OF PCYCLES=[-1],   ICASEsh=[1]
4264                        HYD_COMMENT=["Total Flows at MH340"]
4265    *%----------------|-------------------------------------------------------------|
4266    ROUTE PIPE          PTYPE=[1]circ, NHYDout=["340-104"], RNUMBER=[1.0], PDIAM=[1650](mm),
4267                        PLNGTH=[240](m), PROUGH=[0.013], PSLOPE=[0.0015](m/m),
                            NHYDin=["MH340"], RDT=[1]
4268    *%----------------|-------------------------------------------------------------|
4269    ADD HYD             NHYDsum=["MH104T"], NHYDs to add=["340-104"+"MH104"]
4270    *%----------------|-------------------------------------------------------------|
4271    ROUTE PIPE          PTYPE=[2]rect, NHYDout=["104-105"], RNUMBER=[1.0],
    PWIDTH=[2400](mm)   by PHEIGHT=[2100](mm),
4272                        PLNGTH=[380](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                            NHYDin=["MH104T"], RDT=[1]
4273    *%----------------|-------------------------------------------------------------
    ------------------------------|
4274    CONTINUOUS STANDHYD NHYD=["B5"], DT=[1]min, AREA=[2.2](ha),
4275                        XIMP=[0.57], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
4276                        SCS curve number CN=[75],
4277                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
4278                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
4279                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
4280                                LGI=[187](m), MNI=[0.013], SCI=[0](min),
4281                        Continuous simulation parameters:
4282                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
4283                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
4284                        InterEventTime=[18](hrs),    END=-1
4285    *%----------------|-------------------------------------------------------------|
4286    COMPUTE DUALHYD     NHYDin=["B5"], CINLET=[0.260](cms), NINLET=[1],
4287                        MajNHYD=["B5-MJ"]
4288                        MinNHYD=["B5-MN"]
4289                        TMISTO=[250](cu-m)
4290    *%----------------|-------------------------------------------------------------|
4291    CONTINUOUS STANDHYD NHYD=["A8"], DT=[1]min, AREA=[0.96](ha),
4292                        XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
4293                        SCS curve number CN=[75],
4294                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
4295                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
4296                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
4297                                LGI=[186](m), MNI=[0.013], SCI=[0](min),
4298                        Continuous simulation parameters:
4299                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
4300                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
4301                        InterEventTime=[18](hrs),    END=-1
4302    *%----------------|-------------------------------------------------------------|
4303    ADD HYD             NHYDsum=["A8T"], NHYDs to add=["A6-MJ"+"A8"]
4304    *%----------------|-------------------------------------------------------------|
4305    COMPUTE DUALHYD     NHYDin=["A8T"], CINLET=[0.238](cms), NINLET=[1],
4306                        MajNHYD=["A8-MJ"]
4307                        MinNHYD=["A8-MN"]
4308                        TMISTO=[40](cu-m)
4309    *%----------------|-------------------------------------------------------------|
4310    ADD HYD             NHYDsum=["MH105"], NHYDs to
    add=["104-105"+"B5-MN"+"A8-MN"+"TODD_MN3j"]
4311    *%----------------|-------------------------------------------------------------|
4312    SAVE HYD            NHYD=["MH105"],   # OF PCYCLES=[-1],   ICASEsh=[1]
4313                        HYD_COMMENT=["Total Flows at MH105"]
4314    *%----------------|-------------------------------------------------------------|
4315    DIVERT HYD          NHYDin=["A8-MJ"] NIDout=[2]max five,
4316                        outflow hydrographs (NHYDs)=["A8-MJ-JR" "A8-MJ-B6"]
4317                        flow distribution table: (modify as necessary)
4318                        Note: all flows are in (cms)
```

```
                        QIDi  +  QIDii   =  QTOTAL
                      [   0   +    0     =    0   ]                    ]
                      [   50  +   50     =    100  ] end
*%----------------|-------------------------------------------------------------------------------------|
DIVERT HYD            NHYDin=["MH105"] NIDout=[2]max five,
                      outflow hydrographs (NHYDs)=["MH105-JR"  "MH105-B6"]
                      flow distribution table: (modify as necessary)
                      Note: all flows are in (cms)
                        QIDi  +  QIDii   =  QTOTAL
                      [   0   +    0     =    0   ]
                      [   0   +   3.0   =   3.0  ]
                      [  96.9+  3.1     =   100  ] end
*%----------------|-------------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B7"], DT=[1]min, AREA=[7.19](ha),
                      XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                      SCS curve number CN=[75],
                      Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                      Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[211](m), MNI=[0.013], SCI=[0](min),
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                      SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD               NHYDsum=["B7-B4MJ"], NHYDs to add=["B4-MJ"+"B7"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD       NHYDin=["B7-B4MJ"], CINLET=[0.629](cms), NINLET=[1],
                      MajNHYD=["B7R-MJ"]
                      MinNHYD=["B7R-MN"]
                      TMJSTO=[311](cu-m)
*%----------------|-------------------------------------------------------------|
ROUTE PIPE            PTYPE=[1]circ, NHYDout=["360-106A"], RNUMBER=[1.0], PDIAM=[1050](mm),
                      PLNGTH=[167](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                      NHYDin=["B7R-MN"], RDT=[1]
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-19 change B6 to be developed as per geoottawa website and apply the parameters of A7, the nearest sub-catchment to B6, LGI is calculated based on B6 area
CONTINUOUS STANDHYD NHYD=["B6"], DT=[1]min, AREA=[3.29](ha),
                      XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                      SCS curve number CN=[75],
                      Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                      Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[148.099](m), MNI=[0.013], SCI=[0](min),
                      Continuous simulation parameters:
                      IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                      SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-25   add B1 DUALHYD as per Corrigan Report, IBI Group, 2008
COMPUTE DUALHYD       NHYDin=["B6"], CINLET=[0.064](cms), NINLET=[1],
                      MajNHYD=["B6-MJ"]
                      MinNHYD=["B6-MN"]
                      TMJSTO=[5484](cu-m)
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["B6"], DT=[1]min, AREA=[3.29](ha),
*                    DWF=[0](cms),  CN/C=[75], IA=[2.5](mm),
*                    N=[3.0], TP=[0.36]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
```

```
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*%    -EX-LAND is external land. It is a part of JOCKVA sub-catchment as per Corrigan Report, IBI Group, 2008
CONTINUOUS STANDHYD NHYD=["EX-LAND"], DT=[1]min, AREA=[32.5](ha),
                    XIMP=[0.50], TIMP=[0.50], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[74],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[465.475](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["EX-LAND"], CINLET=[2.275](cms), NINLET=[1],
                    MajNHYD=["EX-LAND-MJ"]
                    MinNHYD=["EX-LAND-MN"]
                    TMJSTO=[1365](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["B6-B7ExMJ"], NHYDs to add=["B7R-MJ"+"EX-LAND-MJ"+"B5-MJ"+"B6-MJ"+"B6-MN"+"A8-MJ-B6"]
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B6-B7ExMJ"], CINLET=[0.064](cms), NINLET=[1],
                    MajNHYD=["B6R-MJ"]
                    MinNHYD=["B6R-MN"]
                    TMJSTO=[5484](cu-m)
*%----------------|---------------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["105-106A"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[208](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["MH105-B6"], RDT=[1]
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["MH106A"], NHYDs to add=["360-106A"+"105-106A"+"B6R-MN"+"B6R-MJ"]
*%----------------|---------------------------------------------------------------|
SAVE HYD            NHYD=["MH106A"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH106A"]
*%----------------|---------------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH106 is called MH117/106 in Corrigan Report, IBI Group, July 2008
*%
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["106A-106"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[190](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["MH106A"], RDT=[1]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A9"], DT=[1]min, AREA=[2.44](ha),
                    XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[262](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A9"], CINLET=[0.547](cms), NINLET=[1],
                    MajNHYD=["A9-MJ"]
                    MinNHYD=["A9-MN"]
                    TMJSTO=[0](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["MH106"], NHYDs to add=["106A-106"+"A9-MN"]
```

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*%----------------|---------------------------------------------------------|
SAVE HYD          NHYD=["MH106"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at MH106"]
*%----------------|---------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH107 is called MH118/107 in Corrigan Report, IBI
Group, July 2008
*%
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["106-107"], RNUMBER=[1.0], PDIAM=[1800](mm),
                  PLNGTH=[122.5](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                  NHYDin=["MH106"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A10"], DT=[1]min, AREA=[4.14](ha),
                  XIMP=[0.35], TIMP=[0.47], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[183](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["A10"], CINLET=[0.310](cms), NINLET=[1],
                  MajNHYD=["A10-MJ"]
                  MinNHYD=["A10-MN"]
                  TMJSTO=[228](cu-m)
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A11"], DT=[1]min, AREA=[10.61](ha),
                  XIMP=[0.53], TIMP=[0.62], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[379](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["A11"], CINLET=[0.993](cms), NINLET=[1],
                  MajNHYD=["A11-MJ"]
                  MinNHYD=["A11-MN"]
                  TMJSTO=[556](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD           NHYDsum=["MH107"], NHYDs to add=["106-107"+"A10-MN"+"A11-MN"]
*%----------------|---------------------------------------------------------|
SAVE HYD          NHYD=["MH107"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at MH107"]
*%----------------|---------------------------------------------------------|
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["107-119"], RNUMBER=[1.0], PDIAM=[1800](mm),
                  PLNGTH=[114](m), PROUGH=[0.013], PSLOPE=[0.0012](m/m),
                  NHYDin=["MH107"], RDT=[1]
*%----------------|---------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH108 is called MH120/108 in Corrigan Report, IBI
Group, July 2008
*%
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["119-108"], RNUMBER=[1.0], PDIAM=[1800](mm),
                  PLNGTH=[65.8](m), PROUGH=[0.013], PSLOPE=[0.0012](m/m),
                  NHYDin=["107-119"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A12"], DT=[1]min, AREA=[12.29](ha),
                  XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
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                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[183](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A12"], CINLET=[1.029](cms), NINLET=[1],
                    MajNHYD=["A12-MJ"]
                    MinNHYD=["A12-MN"]
                    TMJSTO=[672](cu-m)
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A13"], DT=[1]min, AREA=[2.59](ha),
                    XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[379](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A13"], CINLET=[0.571](cms), NINLET=[1],
                    MajNHYD=["A13-MJ"]
                    MinNHYD=["A13-MN"]
                    TMJSTO=[0](cu-m)
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-01-22 add the Corrigan pond area ("Pond-Block")
CONTINUOUS STANDHYD NHYD=["Pond-Block"], DT=[1]min, AREA=[2.94](ha),
                    XIMP=[0.415], TIMP=[0.415], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[183](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["MH108"], NHYDs to add=["119-108"+"A13-MN"+"A12-MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["MH108"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH108"]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["108-116"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[76.6](m), PROUGH=[0.013], PSLOPE=[0.0013](m/m),
                    NHYDin=["MH108"], RDT=[1]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["116-corrig"], RNUMBER=[1.0],
PDIAM=[1800](mm),
                    PLNGTH=[79.5](m), PROUGH=[0.013], PSLOPE=[0.0013](m/m),
                    NHYDin=["108-116"], RDT=[1]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["Corrigan"], NHYDs to add=["116-corrig"+"Pond-Block"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["Corrigan"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Corrigan Pond]
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["Co-P"],  NHYDin=["Corrigan"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                [   0.0 ,   0.0 ]
```

```
                                        [    0.015 ,  0.04118]
                                        [    0.030 ,  0.08297]
                                        [    0.045 ,  0.12537]
                                        [    0.060 ,  0.16837]
                                        [    0.075 ,  0.21199]
                                        [    0.090 ,  0.27545]
                                        [    0.105 ,  0.34650]
                                        [    0.120 ,  0.42049]
                                        [    0.135 ,  0.50188]
                                        [    0.186 ,  0.60307]
                                        [    2.110 ,  0.79083]
                                        [    5.874 ,  1.00271]
                                        [    11.395 ,  1.29643]
                                        [    18.770 ,  1.62054]
                                        [    28.143 ,  1.97516]
                                        [    -1   ,   -1   ]  (max twenty pts)
                                NHYDovf=["Co-P-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["corrig"], NHYDs to
add=["Co-P-OVF"+"Co-P"+"N_TO"+"MH105-JR"+"A8-MJ-JR"+"A9-MJ"+"A10-MJ"+"A11-MJ"+"A12-MJ"+"A
13-MJ"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["corrig"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Corrigan Pond"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    Corrigan Pond 1
*#    - Rating curve obtained from Barrhaven South MSS modeling
*#    - Tributary Drainage Area to MSS Pond 1 = 145 ha
*#*****************************************************************************
*ROUTE RESERVOIR     NHYDout=["MS_P1"],   NHYDin=["CORRIG"],
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [    0.0 ,   0.0 ]
*                                  [    0.06 ,  0.58]
*                                  [    -1   ,   -1   ]  (max twenty pts)
*                          NHYDovf=["P1-OVF"]
*%----------------|-------------------------------------------------------------|
*ADD HYD             NHYDsum=["SN_CO"], NHYDs to add=["N_TO"+"P1-OVF"+"MS_P1"]
*%----------------|-------------------------------------------------------------|
*SAVE HYD            NHYD=["SN_CO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
*                    HYD_COMMENT=["Total Flows at Corrigan Drain"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Corrigan Drain routed to Jockvale Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*#
ROUTE CHANNEL       NHYDout=["N_MJ"] ,NHYDin=["corrig"] ,
                    RDT=[1](min),
                    CHLGTH=[580](m),   CHSLOPE=[0.4448](%),
                                         FPSLOPE=[0.4448](%),
                    SECNUM=[1.0],          NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.075,-17.72
                      -0.045,17.72
                      0.075,80.62]  NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-83.32,  90.00]
                    [-81.36,  89.50]
                    [-79.12,  89.00]
                    [-76.13,  88.50]
                    [-20.46,  88.00]
                    [-19.36,  87.50]
                    [-18.51,  87.00]
                    [-17.72,  86.50]
```

```
                        [-11.95,  85.24]
                        [-0.11,  85.12]
                        [11.49,  85.20]
                        [17.72,  86.50]
                        [19.74,  87.00]
                        [21.22,  87.50]
                        [22.68,  88.00]
                        [24.28,  88.50]
                        [26.79,  89.00]
                        [71.98,  90.00]
                        [80.62,  90.50]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment MILLS
*#     - To SWM Facility north of the Jock
*#     - Primarily residental development
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["MILLS"], DT=[1]min, AREA=[175.99](ha),
                        XIMP=[0.38], TIMP=[0.38], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[74],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                 LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                 LGI=[1118.123](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Chapman Mills SWM Pond
*#     - Rating curve obtained from CCL hydraulic modeling
*#*****************************************************************************
ROUTE RESERVOIR     NHYDout=["MILL_P"],   NHYDin=["MILLS"],
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [   0.0 ,  0.0 ]
                                      [   0.01 , 0.01]
                                      [   0.05 , 0.06]
                                      [   0.09 , 0.11]
                                      [   0.13 , 0.15]
                                      [   0.18 , 0.19]
                                      [   0.28 , 0.28]
                                      [   0.37 , 0.34]
                                      [   0.45 , 0.40]
                                      [   0.51 , 0.44]
                                      [   0.56 , 0.47]
                                      [   0.64 , 0.52]
                                      [   0.76 , 0.59]
                                      [   0.86 , 0.65]
                                      [   1.09 , 0.78]
                                      [   1.44 , 0.96]
                                      [   3.18 , 1.84]
                                      [   4.05 , 2.31]
                                      [   -1   ,  -1  ]  (max twenty pts)
                              NHYDovf=["MIL-OV"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_MI"], NHYDs to add=["N_MI"+"MIL-OV"+"MILL_P"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["SN_MI"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Jockvale Road"]
*%----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Jockvale Road routed to Heart's Desire
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 689
```

```
*#
ROUTE CHANNEL          NHYDout=["N_DE"] ,NHYDin=["SN_MI"] ,
                       RDT=[1](min),
                       CHLGTH=[1962](m),   CHSLOPE=[0.2227](%),
                                            FPSLOPE=[0.2227](%),
                       SECNUM=[1.0],        NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.075,-17.56
                         -0.045,18.27
                         0.075,32.51] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-54.07, 85.00]
                       [-39.43, 84.50]
                       [-28.30, 84.00]
                       [-24.12, 83.50]
                       [-22.30, 83.00]
                       [-20.55, 82.50]
                       [-17.56, 82.00]
                       [-12.63, 81.22]
                       [-0.11, 80.75]
                       [11.55, 81.22]
                       [18.27, 82.00]
                       [19.82, 82.50]
                       [22.48, 83.00]
                       [27.90, 83.50]
                       [29.31, 84.00]
                       [30.81, 84.50]
                       [32.51, 85.00]
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#     Catchment DESIRE
*#     - To Jock River (north of the Jock)
*#     - Rural-estate subdivision (Heart's Desire Community)
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["DESIRE"], DT=[1]min, AREA=[23.78](ha),
                       XIMP=[0.25], TIMP=[0.25], DWF=[0](cms), LOSS=[2],
                       SCS curve number CN=[77],
                       Pervious    surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[400](m), MNI=[0.013], SCI=[0](min),
                       Continuous simulation parameters:
                       IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                       InterEventTime=[18](hrs),    END=-1
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#     Catchment JOCKVA
*#     - To Jockvale SWM Facility
*#     - Residential development & golf course
*#     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
*#       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two
areas JOCKVA and EX-LAND 32.5 ha as per IBI GROUP, July 2008.
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["JOCKVA"], DT=[1]min, AREA=[225.13](ha),
                       XIMP=[0.50], TIMP=[0.50], DWF=[0](cms), LOSS=[2],
                       SCS curve number CN=[74],
                       Pervious    surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[1310.55](m), MNI=[0.013], SCI=[0](min),
                       Continuous simulation parameters:
                       IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                       InterEventTime=[18](hrs),    END=-1
*%----------------|-----------------------------------------------------------|
```

```
ADD HYD                 NHYDsum=["JOCKVA-TO"], NHYDs to
add=["EX-LAND-MN"+"JOCKVA"+"B2-MJ"+"B3-MJ"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["JOCKVA-TO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at KB first pond"]
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#    Jockvale SWM Facility
*#    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
*#*****************************************************************************
ROUTE RESERVOIR         NHYDout=["JOCK_P"],   NHYDin=["JOCKVA-TO"],
                        RDT=[1](min),
                               TABLE of ( OUTFLOW-STORAGE ) values
                                          (cms) - (ha-m)
                                        [   0.0 ,   0.0 ]
                                        [   0.27 ,  0.03]
                                        [   0.28 ,  0.55]
                                        [   0.29 ,  1.14]
                                        [   0.30 ,  1.80]
                                        [   0.31 ,  2.32]
                                        [   1.12 ,  2.87]
                                        [   2.92 ,  3.45]
                                        [   4.64 ,  4.07]
                                        [   6.69 ,  4.72]
                                        [   9.02 ,  5.39]
                                        [   11.62 ,  6.10]
                                        [   14.42 ,  6.85]
                                        [   17.45 ,  7.62]
                                        [   20.69 ,  8.44]
                                        [   24.08 ,  9.28]
                                        [   27.68 ,  10.17]
                                        [   -1   ,   -1   ]  (max twenty pts)
                               NHYDovf=["JO-OVF"]
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_DE"], NHYDs to add=["N_DE"+"DESIRE"+"JO-OVF"+"JOCK_P"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["SN_DE"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Heart's Desire"]
*%----------------|---------------------------------------------------------------|
*#
*# Hydrograph from Heart's Desire routed to Rideau River
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 0
*#
ROUTE CHANNEL           NHYDout=["N1"] ,NHYDin=["SN_DE"] ,
                        RDT=[1](min),
                        CHLGTH=[563](m),   CHSLOPE=[0.9668](%),
                                             FPSLOPE=[0.9668](%),
                        SECNUM=[1.0],          NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.075,-30.20
                          -0.045,30.20
                          0.075,48.48] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-98.46,  81.50]
                        [-92.24,  81.00]
                        [-86.88,  80.50]
                        [-81.54,  80.00]
                        [-74.36,  79.50]
                        [-63.54,  79.00]
                        [-39.23,  78.50]
                        [-34.51,  78.00]
                        [-33.01,  77.50]
                        [-30.20,  77.00]
                        [-13.42,  76.18]
                        [-1.14,  76.09]
                        [17.06,  76.18]
```

```
                        [30.20,  77.00]
                        [32.95,  77.50]
                        [34.06,  78.00]
                        [35.11,  78.50]
                        [36.32,  79.00]
                        [37.74,  79.50]
                        [48.48,  81.50]
*%----------------|---------------------------------------------------------|
*#*************************************************************************
*#     Catchment S-2
*#     - To Jock River (north and south)
*#     - Undeveloped floodplain and river
*#*************************************************************************
CONTINUOUS NASHYD    NHYD=["S-2"], DT=[1]min, AREA=[102.94](ha),
                     DWF=[0](cms), CN/C=[72],  IA=[4.67](mm),
                     N=[3], TP=[0.40]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD              NHYDsum=["SN_N1"], NHYDs to add=["N1"+"S-2"]
*%----------------|---------------------------------------------------------|
SAVE HYD             NHYD=["SN_N1"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Rideau River"]
*%----------------|---------------------------------------------------------|
*#########################################################################
*% 5 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[5]
*%                    ["C24SC005.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 10 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[10]
*%                    ["C24SC010.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 25 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[25]
*%                    ["C24SC025.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 50 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[50]
*%                    ["C24SC050.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 3 hr Chicago storm based on OTTAWA CDA IDF Curves
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                    ["100YC3H.STM"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                    ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 3 hr Chicago storm based on OTTAWA CDA IDF Curves
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                    ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[101]
*%                    ["A24SC100.stm"] <--storm filename, one per line for NSTORM time
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[102]
*%                    ["A24SC100_60.stm"] <--storm filename, one per line for NSTORM time
FINISH
```

```
00001>  ================================================================================
00002>
00003>  SSSSS   W   W   M   M   H   H   Y   Y   M   M    OOO          222     000    11   5555   ========
00004>  S       W   W   MM MM   H   H    Y Y    MM MM   O   O        2   2   0   0  111   5
00005>  SSSSS   W W W   M M M   HHHHH     Y     M M M   O   O            2   0   0   11   5       Ver 5.500
00006>      S   W W W   M   M   H   H     Y     M   M   O   O        222     0   0   11   555     FEB 2015
00007>  SSSSS    W W    M   M   H   H     Y     M   M    OOO         2       0   0   11     5   ========
00008>                                                               2       0   0   11     5   # 2549237
00009>          StormWater Management HYdrologic Model                222     000    11   555   ========
00010>
00011>  ********************************************************************************
00012>  ********************  SWMHYMO Ver 5.500  ********************
00013>  ******************** A single event and continuous hydrologic simulation model  ********************
00014>  ********************      based on the principles of HYMO and its successors     ********************
00015>  ********************              OTTHYMO-83 and OTTHYMO-89.                     ********************
00016>  ********************************************************************************
00017>  ******************** Distributed by:  J. F. Sabourin and Associates Inc.         ********************
00018>  ********************                  Ottawa,  Ontario: (613) 836-3884           ********************
00019>  ********************                  Gatineau, Quebec: (819) 243-6858           ********************
00020>  ********************                  E-Mail: swmhymo@jfsa.Com                   ********************
00021>  ********************************************************************************
00022>
00023>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024>  ++++++++++++++++++++  Licensed user: JFSAInc.                    ++++++++++++++++++++
00025>  ++++++++++++++++++++              Ottawa                SERIAL#: 2549237          ++++++++++++++++++++
00026>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028>  ********************************************************************************
00029>  ********************          ++++++ PROGRAM ARRAY DIMENSIONS ++++++          ********************
00030>  ********************          Maximum value for ID numbers  :    11          ********************
00031>  ********************          Max. number of rainfall points: 105408         ********************
00032>  ********************          Max. number of flow points    : 105408         ********************
00033>  ********************************************************************************
00034>
00035>
00036>  **********************************  S U M M A R Y   O U T P U T  **********************************
00037>  ********************************************************************************
00038>  *                    RUN DATE: 2021-03-04        TIME: 11:54:16        RUN COUNTER: 002083         *
00039>  ********************************************************************************
00040>  * Input   file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated*
00041>  *                3\SMR_S-1_S-Fr_SD.dat                                                           *
00042>  * Output  file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated*
00043>  *                3\SMR_S-1_S-Fr_SD.out                                                           *
00044>  * Summary file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated*
00045>  *                3\SMR_S-1_S-Fr_SD.sum                                                           *
00046>  * User comments:                                                                               *
00047>  * 1:-------------------------------------------------------------------------------------------*
00048>  * 2:-------------------------------------------------------------------------------------------*
00049>  * 3:-------------------------------------------------------------------------------------------*
00050>  ********************************************************************************
00051>
00052>
00053>  #*******************************************************************************
00054>  #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE                          *
00055>  #*******************************************************************************
00056>  #  Project Name: [Jock River]      Project Number: [1474-16]                   *
00057>  #  Date        : 04-03-2021                                                    *
00058>  #  Modeller    : [MM]                                                          *
00059>  #  Company     : JFSAinc.                                                      *
00060>  #  License #   : 2549237                                                      *
00061>  #*******************************************************************************
00062>  # CALIBRATION OF SUMMER MODEL PARAMETERS
00063>  # USING CONTINUOUS SIMULATIONS
00064>  # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00065>  # Use data collected from May 1st to July 14, 2003
00066>  # 2020-11-30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0.1 instead of 0.0001)
00067>  # 2020-12-01 correct pond curve values
00068>  # 2020-12-01 change W_CLAR_BRAZ_XIMP to 0.55, SLPI=[0.5]/(% (impervious slope), and LGI up to 700m
00069>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TOF"], NHYDin=["SN_TOF"]) from 0.033 %(as per S
00070>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
00071>  # ------------------------------------------------------------------------------
00072>      ** END OF RUN :  1
00073>
00074>  ********************************************************************************
00075>
00076>
00077>
00078>
00079>
00080>  RUN#: COMMAND#
00081>  R0002: C00001-------------------------------------------------------------------------
00082>         START
00083>         [TZERO =     .00 hrs on       0]
00084>         [METOUT=   2     (1=imperial, 2=metric output)]
00085>         [NSTORM=   1 ]
00086>         [NRUN  = 0002 ]
00087>  #*******************************************************************************
00088>  #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE                          *
00089>  #*******************************************************************************
00090>  #  Project Name: [Jock River]      Project Number: [1474-16]                   *
00091>  #  Date        : 04-03-2021                                                    *
00092>  #  Modeller    : [MM]                                                          *
00093>  #  Company     : JFSAinc.                                                      *
00094>  #  License #   : 2549237                                                      *
00095>  #*******************************************************************************
00096>  # CALIBRATION OF SUMMER MODEL PARAMETERS
00097>  # USING CONTINUOUS SIMULATIONS
00098>  # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00099>  # Use data collected from May 1st to July 14, 2003
00100>  # 2020-11-30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0.1 instead of 0.0001)
00101>  # 2020-12-01 correct pond curve values
00102>  # 2020-12-01 change W_CLAR_BRAZ_XIMP to 0.55, SLPI=[0.5]/(% (impervious slope), and LGI up to 700m
00103>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TOF"], NHYDin=["SN_TOF"]) from 0.033 %(as per S
00104>  # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
00105>  # ------------------------------------------------------------------------------
00106>  R0002: C00002-------------------------------------------------------------------------
00107>         READ STORM
00108>         Filename = storm001
00109>         Comment  = Pluie SCS de 24 hres 1:2 ans pour Ottawa CDA
00110>         [SDI=10.00:SDUR=  24.00:PTOT=  45.51]
00111>  R0002: C00003-------------------------------------------------------------------------
00112>         MODIFY STORM
00113>         [RFACT=   1.00:TSHIFT= 960.00 min]
00114>         [SDI=10.00:SDUR=  40.00:PTOT=  45.51]
00115>  R0002: C00004-------------------------------------------------------------------------
00116>         DEFAULT VALUES
00117>         Filename = T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated3\CitiGate.DEF
00118>         [CASEdv  = 1 (read and print data)
00119>         FileTitle= File comment: [Based onvarious calibration exercises in Onta
00120>                    THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
00121>         Horton's infiltration equation parameters:
00122>         [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=   .00 mm]
00123>         Parameters for PERVIOUS surfaces in STANDHYD:
00124>         [IAper=   4.67 mm] [LGP=50.00 m] [MNP=  .250]
00125>         Parameters for IMPERVIOUS surfaces in STANDHYD:
00126>         [IAimp=   1.57 mm] [CLI=  1.50]   [MNI=  .013]
00127>         Parameters used in NASHYD:
00128>         [Ia=   4.67 mm] [N= 3.00]
00129>         Average monthly Pan Evaporation data in    (mm)
00130>         JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
00131>         .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
00132>         Average monthly Potential Evapotranspiration in    (mm)
00133>         JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
00134>         .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
00135>  R0002: C00005-------------------------------------------------------------------------
00136>         COMPUTE API
00137>         [APIini= 50.00:  APIkdy=  .8500:  APIkdt= .9989]
00138>         [APImax= 80.12:  APIavg=  56.74:  APImin= 44.87]
00139>  #
00140>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00141>  # of 1.32
00142>  R0002: C00006-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00143>         CONTINUOUS NASHYD      1.0 01:JR_HW       3680.00     6.204 No_date   37:06   11.47 .252      .000
00144>         [CN= 64.0: N= 3.00: Tp= 7.13]
00145>         [IaREC= 4.00: SMN= 57.05: SMX=380.32: SK= .010]
00146>         [InterEventTime=  12.00]
00147>  #
00148>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00149>  # of 1.32
00150>  R0002: C00007-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00151>         CONTINUOUS NASHYD      1.0 01:SW_13        971.00     2.187 No_date   32:37   10.75 .236      .000
00152>         [CN= 61.0: N= 3.00: Tp= 3.76]
00153>         [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
00154>         [InterEventTime=  12.00]
00155>  #
00156>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00157>  # of 1.80
00158>  R0002: C00008-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00159>         CONTINUOUS NASHYD      1.0 01:JR_GWM      3074.00     3.218 No_date   39:59    9.43 .207      .000
00160>         [CN= 55.0: N= 3.00: Tp=11.33]
00161>         [IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
00162>         [InterEventTime=  12.00]
00163>  R0002: C00009-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00164>         CONTINUOUS NASHYD      1.0 01:JR_ASH      1781.00     5.504 No_date   32:45   13.94 .306      .000
00165>         [CN= 72.0: N= 3.00: Tp= 3.91]
00166>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00167>         [InterEventTime=  12.00]
00168>  R0002: C00010-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00169>         CONTINUOUS NASHYD      1.0 01:SW_11        500.00     2.720 No_date   29:22   11.98 .263      .000
00170>         [CN= 66.0: N= 3.00: Tp= 1.24]
00171>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00172>         [InterEventTime=  12.00]
00173>  #
00174>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00175>  # of 1.80
00176>  R0002: C00011-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00177>         CONTINUOUS NASHYD      1.0 01:NC_CK       1917.00     4.042 No_date   34:34   11.98 .263      .000
00178>         [CN= 66.0: N= 3.00: Tp= 5.29]
00179>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00180>         [InterEventTime=  12.00]
00181>  #
00182>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00183>  # of 1.52
00184>  R0002: C00012-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00185>         CONTINUOUS NASHYD      1.0 01:SW_10       5666.00    11.228 No_date   38:07   13.94 .306      .000
00186>         [CN= 72.0: N= 3.00: Tp= 8.00]
00187>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00188>         [InterEventTime=  12.00]
00189>  #
00190>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00191>  # of 1.75
00192>  R0002: C00013-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00193>         CONTINUOUS NASHYD      1.0 01:KG_CK       8376.00    11.072 No_date   39:59   11.98 .263      .000
00194>         [CN= 66.0: N= 3.00: Tp=11.66]
00195>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00196>         [InterEventTime=  12.00]
00197>  #
00198>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00199>  # of 1.68
00200>  R0002: C00014-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00201>         CONTINUOUS NASHYD      1.0 01:SW_9        1132.00     4.434 No_date   30:56   13.35 .293      .000
00202>         [CN= 70.0: N= 3.00: Tp= 2.51]
00203>         [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
00204>         [InterEventTime=  12.00]
00205>  #
00206>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00207>  # of 1.82
00208>  R0002: C00015-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00209>         CONTINUOUS NASHYD      1.0 01:NC_CK       4464.00     5.504 No_date   39:59   10.98 .241      .000
00210>         [CN= 62.0: N= 3.00: Tp=11.32]
00211>         [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
00212>         [InterEventTime=  12.00]
00213>  #
00214>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00215>  # of 1.80
00216>  R0002: C00016-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00217>         CONTINUOUS NASHYD      1.0 01:SW_8         131.00      .805 No_date   28:57   11.22 .247      .000
00218>         [CN= 63.0: N= 3.00: Tp=  .90]
00219>         [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
00220>         [InterEventTime=  12.00]
00221>  #
00222>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00223>  # of 1.65
00224>  R0002: C00017-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00225>         CONTINUOUS NASHYD      1.0 01:HB_DR       3854.00     6.242 No_date   38:46   11.98 .263      .000
00226>         [CN= 66.0: N= 3.00: Tp= 8.42]
00227>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00228>         [InterEventTime=  12.00]
00229>  #
00230>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00231>  # of 1.82
00232>  R0002: C00018-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00233>         CONTINUOUS NASHYD      1.0 01:SW_7        3197.00     4.651 No_date   36:31    9.85 .217      .000
00234>         [CN= 57.0: N= 3.00: Tp= 6.65]
00235>         [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
00236>         [InterEventTime=  12.00]
00237>  #
00238>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00239>  # of 1.75
00240>  R0002: C00019-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00241>         CONTINUOUS NASHYD      1.0 01:SW_6         165.00      .413 No_date   33:07   12.24 .269      .000
00242>         [CN= 67.0: N= 3.00: Tp= 4.18]
00243>         [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
00244>         [InterEventTime=  12.00]
00245>  #
00246>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00247>  # of 1.67
00248>  R0002: C00020-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00249>         CONTINUOUS NASHYD      1.0 01:VG_DR       1332.00     3.148 No_date   35:23   13.94 .306      .000
00250>         [CN= 72.0: N= 3.00: Tp= 5.95]
00251>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00252>         [InterEventTime=  12.00]
00253>  R0002: C00021-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00254>         CONTINUOUS NASHYD      1.0 01:SW_5         224.00     2.597 No_date   28:45   15.91 .350      .000
00255>         [CN= 77.0: N= 3.00: Tp=  .75]
00256>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00257>         [InterEventTime=  12.00]
00258>  #
00259>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00260>  # of 1.20
00261>  R0002: C00022-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00262>         CONTINUOUS NASHYD      1.0 01:FL_CK       4945.00    14.839 No_date   33:25   14.57 .320      .000
00263>         [CN= 74.0: N= 3.00: Tp= 4.45]
00264>         [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
00265>         [InterEventTime=  12.00]
00266>  R0002: C00023-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00267>         CONTINUOUS NASHYD      1.0 01:SW_5A2        20.00      .309 No_date   28:36   17.79 .391      .000
00268>         [CN= 81.0: N= 3.00: Tp=  .62]
00269>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00270>         [InterEventTime=  12.00]
00271>  #
00272>  # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00273>  # of 1.61
00274>  R0002: C00024-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00275>         CONTINUOUS NASHYD      1.0 01:SW_5A1      1412.00     3.090 No_date   38:04   15.22 .334      .000
00276>         [CN= 75.0: N= 3.00: Tp= 8.00]
00277>         [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
00278>         [InterEventTime=  12.00]
00279>  R0002: C00025-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00280>         CONTINUOUS NASHYD      1.0 01:SW_4         585.00     4.325 No_date   29:58   17.79 .391      .000
00281>         [CN= 81.0: N= 3.00: Tp= 1.75]
00282>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00283>         [InterEventTime=  12.00]
00284>  R0002: C00026-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00285>         CONTINUOUS NASHYD      1.0 01:LM_CK       1021.00     5.747 No_date   30:50   17.39 .382      .000
00286>         [CN= 80.0: N= 3.00: Tp= 2.46]
00287>         [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
00288>         [InterEventTime=  12.00]
00289>  R0002: C00027-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00290>         CONTINUOUS NASHYD      1.0 01:SW_2         177.00     2.052 No_date   28:45   15.91 .350      .000
00291>         [CN= 77.0: N= 3.00: Tp=  .75]
00292>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00293>         [InterEventTime=  12.00]
00294>  R0002: C00028-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00295>         CONTINUOUS NASHYD      1.0 01:SM_DR       1122.00     5.337 No_date   31:50   17.79 .391      .000
00296>         [CN= 81.0: N= 3.00: Tp= 3.25]
00297>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00298>         [InterEventTime=  12.00]
00299>  R0002: C00029-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00300>         CONTINUOUS NASHYD      1.0 01:MO_DR       2737.00    11.528 No_date   31:35   15.56 .342      .000
00301>         [CN= 76.0: N= 3.00: Tp= 3.03]
00302>         [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
00303>         [InterEventTime=  12.00]
00304>  #
00305>  # Routing hydrographs
00306>  #
00307>  # Starting with the addition of Jock River Headwater and Subwatershed 13
00308>  #
00309>  R0002: C00030-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00310>         ADD HYD                1.0 02:JR_HW       3680.00     6.204 No_date   37:06   11.47  n/a      .000
00311>                              + 1.0 02:SW_13        971.00     2.187 No_date   32:37   10.75  n/a      .000
00312>                            SUM= 1.0 01:S_N13      4651.00     7.871 No_date   35:37   11.32  n/a      .000
00313>  #
00314>  # Sum of hydrographs from Node 13 routed to Node 13A
00315>  # (Approximated cross-section - see cross-section 258)
00316>  # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00317>  #
00318>  R0002: C00031-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00319>         ROUTE CHANNEL     -> 1.0 02:S_N13      4651.00     7.871 No_date   35:37   11.32  n/a      .000
00320>         [RDT= 1.00] out <- 1.0 01:N13A         4651.00     6.258 No_date   39:59   11.32  n/a      .000
00321>                            [L/S/n= 9074./ .022/ .040]
00322>                            [Vmax=  .429: Dmax= 2.557]
00323>  #
00324>  # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
00325>  #
00326>  R0002: C00032-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00327>         ADD HYD                1.0 02:N13A        4651.00     6.258 No_date   39:59   11.32  n/a      .000
00328>                              + 1.0 02:JR_GWM      3074.00     3.218 No_date   39:59    9.43  n/a      .000
00329>                            SUM= 1.0 01:SN13A      7725.00     9.475 No_date   39:59   10.57  n/a      .000
00330>  #
00331>  # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
00332>  #
00333>  R0002: C00033-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00334>         ROUTE RESERVOIR -> 1.0 02:SN13A       7725.00     9.475 No_date   39:59   10.57  n/a      .000
00335>                        out <= 1.0 01:RES_GM    7725.00     2.619 No_date   55:07   10.57  n/a      .000
00336>                         {MxStoUsed= 3585E+02  m3}
00337>  #
00338>  R0002: C00034-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00339>         SAVE HYD               1.0 01:RES_GM      7725.00     2.619 No_date   55:07   10.57  n/a      .000
00340>         fname :H_RESGM
00341>         remark: Outflow from Res GM
00342>  # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
00343>  # (Approximated cross-section - see cross-section 258)
00344>  # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00345>  R0002: C00035-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00346>         ROUTE CHANNEL     -> 1.0 02:RES_GM     7725.00     2.619 No_date   55:07   10.57  n/a      .000
00347>         [RDT= 1.00] out <- 1.0 01:N12          7725.00     2.609 No_date   58:09   10.57  n/a      .000
00348>                            [L/S/n= 5926./ .076/ .040]
00349>                            [Vmax=  .501: Dmax= 1.329]
00350>  #
00351>  # Addition of Subwatershed Jock River at Ashton to Node 12
00352>  #
00353>  R0002: C00036-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00354>         ADD HYD                1.0 02:N12         7725.00     2.609 No_date   58:08   10.57  n/a      .000
00355>                              + 1.0 02:JR_ASH      1781.00     5.504 No_date   32:45   13.94  n/a      .000
00356>                            SUM= 1.0 01:S_N12      9506.00     7.458 No_date   32:50   11.20  n/a      .000
00357>  R0002: C00037-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00358>         SAVE HYD               1.0 01:S_N12       9506.00     7.458 No_date   32:50   11.20  n/a      .000
00359>         fname :H_SN12
00360>         remark: flow at S_N12 near Ashton
00361>  #
00362>  # Sum of hydrographs from Node 12 routed to Node 11
00363>  # (Approximated cross-section - see cross-section 258)
00364>  # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00365>  #
00366>  # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
00367>  #
00368>  R0002: C00038-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00369>         ROUTE CHANNEL     -> 1.0 02:S_N12      9506.00     7.458 No_date   32:50   11.20  n/a      .000
00370>         [RDT= 1.00] out <- 1.0 01:Dum11        9506.00     7.379 No_date   33:12   11.20  n/a      .000
00371>                            [L/S/n=  972./ .054/ .040]
00372>                            [Vmax=  .591: Dmax= 2.108]
00373>  #
00374>  # Addition of Subwatershed 11 and No Name Creek to Node 11
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00375> #
00376< R0002: C00039-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00377>       ADD HYD                    1.0 02: Dam1          9506.00     7.379 No_date   33:12   11.20  n/a      .000
00378>                              +    1.0 02: SW_11          500.00     2.720 No_date   29:22   11.98  n/a      .000
00379>                              +    1.0 02: NN_CK         1917.00     4.042 No_date   34:34   11.98  n/a      .000
00380>                          SUM=     1.0 01: S_N11        11923.00    12.077 No_date   33:14   11.36  n/a      .000
00381< #
00382< # Sum of hydrographs from Node 11 routed to Node 10
00383< # Section 1
00384< #
00385< R0002: C00040-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00386<       ROUTE CHANNEL    ->     1.0 02: S_N11         11923.00    12.077 No_date   33:14   11.36  n/a      .000
00387<        [RDT= 1.00] out<-     1.0 01: N10           11923.00     8.276 No_date   39:46   11.36  n/a      .000
00388<         [L/S/n=14028./ .157/.040]
00389<         {Vmx= .462: Dmx= .886}
00390< #
00391< # Addition of Subwatersheds 10 to Node 10
00392< #
00393< R0002: C00041-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00394>       ADD HYD                    1.0 02: N10           11923.00     8.276 No_date   39:46   11.36  n/a      .000
00395>                              +    1.0 02: SW_N10        5666.00    11.228 No_date   38:07   13.94  n/a      .000
00396>                          SUM=     1.0 01: S_N10         17589.00    19.451 No_date   38:31   12.19  n/a      .000
00397< R0002: C00042-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00398>       SAVE HYD                   1.0 01: S_N10         17589.00    19.451 No_date   38:31   12.19  n/a      .000
00399>          fname : H_SN10
00400>          remark: flow at S_N10:  N10 + SW10
00401< # Addition of Kings Creek to S_N10
00402< #
00403< R0002: C00043-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00404>       ADD HYD                    1.0 02: S_N10         17589.00    19.451 No_date   38:31   12.19  n/a      .000
00405>                              +    1.0 02: KG_CK          8376.00    11.072 No_date   39:59   11.98  n/a      .000
00406>                          SUM=     1.0 01: S_N10A        25965.00    30.328 No_date   39:58   12.12  n/a      .000
00407< #
00408< # Sum of hydrographs from Node 10 routed to Node 9
00409< # Section 2
00410< #
00411< R0002: C00044-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00412>       ROUTE CHANNEL    ->     1.0 02: S_N10A        25965.00    30.328 No_date   39:58   12.12  n/a      .000
00413<        [RDT= 1.00] out<-     1.0 01: N9            25965.00    29.579 No_date   39:59   12.12  n/a      .000
00414<         [L/S/n= 3982./ .075/.040]
00415<         {Vmx= .595: Dmx= 1.208}
00416< #
00417< # Addition of Subwatershed 9 and Nichols Creek to Node 9
00418< #
00419< R0002: C00045-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00420>       ADD HYD                    1.0 02: N9            25965.00    29.579 No_date   39:59   12.12  n/a      .000
00421>                              +    1.0 02: SW_9           1132.00     4.434 No_date   30:56   13.35  n/a      .000
00422>                              +    1.0 02: NC_CK          4464.00     5.504 No_date   39:59   10.98  n/a      .000
00423>                          SUM=     1.0 01: S_N9          31561.00    36.313 No_date   39:59   12.00  n/a      .000
00424< #
00425< # Sum of hydrographs from Node 9 routed to Node 8
00426< # Section 3
00427< #
00428< R0002: C00046-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00429>       ROUTE CHANNEL    ->     1.0 02: S_N9          31561.00    36.313 No_date   39:59   12.00  n/a      .000
00430<        [RDT= 1.00] out<-     1.0 01: N8            31561.00    34.173 No_date   39:59   12.00  n/a      .000
00431<         [L/S/n= 2269./ .088/.045]
00432<         {Vmx= .418: Dmx= 1.281}
00433< #
00434< # Addition of Subwatershed 8 and Hobb's Drain to Node 8
00435< #
00436< R0002: C00047-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00437>       ADD HYD                    1.0 02: N8            31561.00    34.173 No_date   39:59   12.00  n/a      .000
00438>                              +    1.0 02: SW_8            131.00     0.805 No_date   28:57   11.22  n/a      .000
00439>                              +    1.0 02: HB_DR          3854.00     6.242 No_date   38:46   11.98  n/a      .000
00440>                          SUM=     1.0 01: S_N8          35546.00    40.474 No_date   39:59   12.00  n/a      .000
00441< #
00442< # Sum of hydrographs from Node 8 routed to Node 7
00443< # Section 4
00444< #
00445< R0002: C00048-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00446>       ROUTE CHANNEL    ->     1.0 02: S_N8          35546.00    40.474 No_date   39:59   12.00  n/a      .000
00447<        [RDT= 1.00] out<-     1.0 01: N7            35546.00    32.891 No_date   44:30   12.00  n/a      .000
00448<         [L/S/n= 3750./ .053/.070]
00449<         {Vmx= .208: Dmx= 1.651}
00450< #
00451< # Addition of Subwatershed 7 to Node 7
00452< #
00453< R0002: C00049-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00454>       ADD HYD                    1.0 02: N7            35546.00    32.891 No_date   44:30   12.00  n/a      .000
00455>                              +    1.0 02: SW_7           3197.00     4.651 No_date   36:31    9.85  n/a      .000
00456>                          SUM=     1.0 01: S_N7          38743.00    35.071 No_date   43:33   11.82  n/a      .000
00457< R0002: C00050-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00458>       SAVE HYD                   1.0 01: S_N7          38743.00    35.071 No_date   43:33   11.82  n/a      .000
00459>          fname : H_SN7
00460>          remark: flow at S_N7:  N7 + SW_7
00461< # Insertion of a reservoir to simulate the effects of the Richmond Fen.
00462< # Storage area and volumes were estimated from available topo maps.
00463< # Release rate from fen was assumed to be controlled by the downstream
00464< # river cross-section for summer conditions.  It is was assumed that for up to
00465< # 0.75 m of water, the main channel of the river provided the storage.  Above
00466< # this depth, the wetland starts to significantly store water.
00467< #
00468< R0002: C00051-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00469>       ROUTE RESERVOIR  ->     1.0 02: S_N7          38743.00    35.071 No_date   43:33   11.82  n/a      .000
00470>                        out <=    1.0 01: RES_RF        38743.00    23.265 No_date   55:09   11.82  n/a      .000
00471<         [MxStOlked= 7801E+02   m3]
00472< R0002: C00052-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00473>       SAVE HYD                   1.0 01: RES_RF        38743.00    23.265 No_date   55:09   11.82  n/a      .000
00474>          fname : H_ResRF
00475>          remark: outflow of Richmond Fen
00476< #
00477< # Sum of hydrographs from Node 7 routed to Node 6
00478< # Section 5
00479< #
00480< R0002: C00053-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00481>       ROUTE CHANNEL    ->     1.0 02: RES_RF        38743.00    23.265 No_date   55:09   11.82  n/a      .000
00482<        [RDT= 1.00] out<-     1.0 01: N6            38743.00    23.228 No_date   56:38   11.82  n/a      .000
00483<         [L/S/n= 3056./ .082/.025]
00484<         {Vmx= .432: Dmx= .808}
00485< #
00486< # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
00487< #
00488< R0002: C00054-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00489>       ADD HYD                    1.0 02: N6            38743.00    23.228 No_date   56:38   11.82  n/a      .000
00490>                              +    1.0 02: SW_6           165.00     .413 No_date   33:07   12.24  n/a      .000
00491>                              +    1.0 02: VG_DR         1332.00     3.148 No_date   35:23   13.94  n/a      .000
00492>                          SUM=     1.0 01: S_N6          40240.01    23.318 No_date   39:59   11.89  n/a      .000
00493< #
00494< # Sum of hydrographs from Node 6 routed to Node 5
00495< # Section 6
00496< #
00497< R0002: C00055-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00498>       ROUTE CHANNEL    ->     1.0 02: S_N6          40240.01    23.318 No_date   39:59   11.89  n/a      .000
00499<        [RDT= 1.00] out<-     1.0 01: N5            40240.01    23.285 No_date   56:09   11.89  n/a      .000
00500<         [L/S/n= 1852./ .054/.035]
00501<         {Vmx= .378: Dmx= .917}
00502< #
00503< # Addition of Subwatershed 5 and Flowing Creek to Node 5
00504< #
00505< R0002: C00056-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00506>       ADD HYD                    1.0 02: N5            40240.01    23.285 No_date   56:09   11.89  n/a      .000
00507>                              +    1.0 02: SW_5           224.00     2.597 No_date   28:45   15.91  n/a      .000
00508>                              +    1.0 02: FL_CK         4945.00    14.839 No_date   33:25   14.57  n/a      .000
00509>                          SUM=     1.0 01: S_N5          45409.01    33.166 No_date   37:08   12.20  n/a      .000
00510< #
00511< # Sum of hydrographs from Node 5 routed to Node 5A
00512< # Section 7
00513< #
00514< R0002: C00057-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00515>       ROUTE CHANNEL    ->     1.0 02: S_N5          45409.01    33.166 No_date   37:08   12.20  n/a      .000
00516<        [RDT= 1.00] out<-     1.0 01: N5A           45409.01    33.135 No_date   37:20   12.20  n/a      .000
00517<         [L/S/n= 556./ .090/.040]
00518<         {Vmx= .443: Dmx= .937}
00519< #
00520< # Addition of Subwatershed 5AI and Subwatershed 5A2 to Node 5A
00521< #
00522< R0002: C00058-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00523>       ADD HYD                    1.0 02: N5A           45409.01    33.135 No_date   37:20   12.20  n/a      .000
00524>                              +    1.0 02: SW_5A2          20.00      .309 No_date   28:36   17.79  n/a      .000
00525>                              +    1.0 02: SW_5AI        1412.00     3.090 No_date   38:04   15.22  n/a      .000
00526>                          SUM=     1.0 01: S_N5A         46841.01    36.236 No_date   37:28   12.30  n/a      .000
00527< #
00528< # Sum of hydrographs from Node 5A routed to Node 4
00529< # Section 8
00530< #
00531< R0002: C00059-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00532>       ROUTE CHANNEL    ->     1.0 02: S_N5A         46841.01    36.236 No_date   37:28   12.30  n/a      .000
00533<        [RDT= 1.00] out<-     1.0 01: N4            46841.01    35.288 No_date   39:22   12.30  n/a      .000
00534<         [L/S/n= 4630./ .043/.035]
00535<         {Vmx= .695: Dmx= 2.844}
00536< #
00537< # Addition of Subwatershed 4 and Leamy Creek to Node 4
00538< #
00539< R0002: C00060-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00540>       ADD HYD                    1.0 02: N4            46841.01    35.288 No_date   39:22   12.30  n/a      .000
00541>                              +    1.0 02: SW_4           585.00     4.325 No_date   29:58   17.79  n/a      .000
00542>                              +    1.0 02: LM_CK         1021.00     5.747 No_date   30:50   17.39  n/a      .000
00543>                          SUM=     1.0 01: S_N4          48447.00    37.581 No_date   38:13   12.47  n/a      .000
00544< R0002: C00061-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00545>       SAVE HYD                   1.0 01: S_N4          48447.00    37.581 No_date   38:13   12.47  n/a      .000
00546>          fname : S_N4. 0002
00547>          remark: flow at S_N4
00548< #
00549< # Sum of hydrographs from Node 4 routed to Node 2
00550< # Section 9
00551< #
00552< R0002: C00062-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00553>       ROUTE CHANNEL    ->     1.0 02: S_N4          48447.00    37.581 No_date   38:13   12.47  n/a      .000
00554<        [RDT= 1.00] out<-     1.0 01: N2            48447.00    37.455 No_date   38:49   12.47  n/a      .000
00555<         [L/S/n= 1667./ .060/.040]
00556<         {Vmx= .715: Dmx= 2.845}
00557< #
00558< # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
00559< #
00560< R0002: C00063-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00561>       ADD HYD                    1.0 02: N2            48447.00    37.455 No_date   38:49   12.47  n/a      .000
00562>                              +    1.0 02: SW_2           177.00     2.052 No_date   28:45   15.91  n/a      .000
00563>                              +    1.0 02: SM_DR         1122.00     5.337 No_date   31:50   17.79  n/a      .000
00564>                              +    1.0 02: MD_DR         2737.00    11.528 No_date   31:35   15.56  n/a      .000
00565>                          SUM=     1.0 01: S_N2          52483.00    46.294 No_date   33:33   12.76  n/a      .000
00566< R0002: C00064-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00567>       SAVE HYD                   1.0 01: S_N2          52483.00    46.294 No_date   33:33   12.76  n/a      .000
00568>          fname : H_SN2
00569>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
00570< #
00571< # Sum of hydrographs from Node 2 routed to Node 1
00572< # Section 10
00573< #
00574< #*************************************************************************
00575< #
00576< # Hydrograph from Node 2 routed to Node 416
00577< # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
00578< #
00579< R0002: C00065-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00580>       ROUTE CHANNEL    ->     1.0 02: S_N2          52483.00    46.294 No_date   33:33   12.76  n/a      .000
00581<        [RDT= 1.00] out<-     1.0 01: N_416         52483.00    45.431 No_date   35:37   12.76  n/a      .000
00582<         [L/S/n= 2327./ .050/.055]
00583<         {Vmx= .577: Dmx= 2.212}
00584< #*************************************************************************
00585< #     Catchment SW1a
00586< #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
00587< #     - Undeveloped agricultural land
00588< #*************************************************************************
00589< R0002: C00066-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00590>       CONTINUOUS NASHYD      1.0 01: SW1a          536.42     1.885 No_date   31:21   13.01  .286      .000
00591<         [CN= 72.0: N= 3.00: Tp= .79]
00592<         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00593<         [InterEventTime= 12.00]
00594< R0002: C00067-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00595>       CONTINUOUS STANDHYD    1.0 01: S-1-Okeefe     44.93     3.420 No_date   28:04   32.20  .707      .000
00596<         [XIMP=.65: TIMP=.65]
00597<         [LOSS= 2 : CN= 75.0]
00598<         [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40. : MNP=.250: SCP=    .0]
00599<         [Impervious    area: IAimp= 1.57: SLPI= .75: LGI= 547. : MNI=.013: SCI=    .0]
00600<         [IaRECimp=  4.00: IaRECper=    4.00]
00601<         [SMN= 33.81: SMX=225.43: SK= .010]
00602< R0002: C00068-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00603>       ADD HYD                    1.0 02: N_416         52483.00    45.431 No_date   35:37   12.76  .941      .000
00604>                              +    1.0 02: SW_1a          536.42     1.885 No_date   31:21   13.01  .494      .000
00605>                              +    1.0 02: S-1-Okeefe      44.93     3.420 No_date   28:04   32.20  .707      .000
00606>                          SUM=     1.0 01: SN_416        53064.36    46.619 No_date   35:24   12.78  .941      .000
00607< R0002: C00069-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00608>       SAVE HYD                   1.0 01: SN_416        53064.36    46.619 No_date   35:24   12.78  .941      .000
00609>          fname : SN_416. 0002
00610>          remark: Total Flows at Highway 416
00611< #
00612< # Hydrograph from Node 416 routed to Node at Okeefe drain
00613< # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
00614< #
00615< R0002: C00070-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00616>       ROUTE CHANNEL    ->     1.0 02: SN_416        53064.36    46.619 No_date   35:24   12.78  .941      .000
00617<        [RDT= 1.00] out<-     1.0 01: N_OK          53064.36    46.610 No_date   35:24   12.78  .941      .000
00618<         [L/S/n=  497./ .302/.055]
00619<         {Vmx= 1.190: Dmx= 1.879}
00620< #*************************************************************************
00621< #     Catchment OKEEFE
00622< #     - To O'Keefe drain (north of the Jock)
00623< #     - Developed with assumed 43% imp.
00624< #     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
00625< #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
00626< #*************************************************************************
00627< R0002: C00071-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00628>       CONTINUOUS NASHYD      1.0 01: O-1            63.72      .305 No_date   28:59    9.62  .211      .000
00629<         [CN= 61.0: N= 3.00: Tp= .90]
00630<         [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
00631<         [InterEventTime= 12.00]
00632< R0002: C00072-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00633>       ROUTE CHANNEL    ->     1.0 02: O-1            63.72      .305 No_date   28:59    9.62  n/a      .000
00634<        [RDT= 1.00] out<-     1.0 01: O-1R           63.72      .272 No_date   29:20    9.62  n/a      .000
00635<         [L/S/n=  960./ .630/.043]
00636<         {Vmx= .589: Dmx= .212}
00637< R0002: C00073-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00638>       CONTINUOUS NASHYD      1.0 01: O-2            28.61      .110 No_date   29:14    9.11  .200      .000
00639<         [CN= 57.0: N= 3.00: Tp= 1.10]
00640<         [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
00641<         [InterEventTime= 12.00]
00642< R0002: C00074-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00643>       CONTINUOUS NASHYD      1.0 01: O-4            46.94      .126 No_date   29:02    7.06  .155      .000
00644<         [CN= 49.0: N= 3.00: Tp= .90]
00645<         [IaREC= 4.00: SMN=104.59: SMX=697.25: SK= .010]
00646<         [InterEventTime= 12.00]
00647< R0002: C00075-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00648>       ADD HYD                    1.0 02: O-1R           63.72      .272 No_date   29:20    9.62  n/a      .000
00649>                              +    1.0 02: O-2            28.61      .110 No_date   29:14    9.11  n/a      .000
00650>                              +    1.0 02: O-4            46.94      .126 No_date   29:02    7.06  n/a      .000
00651>                          SUM=     1.0 01: OKF-N         139.27      .504 No_date   29:15    8.65  n/a      .000
00652< R0002: C00076-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00653>       ROUTE CHANNEL    ->     1.0 02: OKF-N         139.27      .504 No_date   29:15    8.65  n/a      .000
00654<        [RDT= 1.00] out<-     1.0 01: OKF-NR        139.27      .502 No_date   29:20    8.65  n/a      .000
00655<         [L/S/n=  210./ .810/.043]
00656<         {Vmx=  .722: Dmx=  .437}
00657< R0002: C00077-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00658>       CONTINUOUS NASHYD      1.0 01: O-6            16.46      .042 No_date   28:47    6.40  .141      .000
00659<         [CN= 43.0: N= 3.00: Tp= .70]
00660<         [IaREC= 4.00: SMN=134.47: SMX=896.47: SK= .010]
00661<         [InterEventTime= 12.00]
00662< R0002: C00078-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00663>       CONTINUOUS STANDHYD    1.0 01: O-3            39.67      .402 No_date   28:28   11.03  .242      .000
00664<         [XIMP=.15: TIMP=.30]
00665<         [LOSS= 2 : CN= 50.0]
00666<         [Pervious      area: IAper= 4.67: SLPP=  .32: LGP= 440. : MNP=.035: SCP=    .0]
00667<         [Impervious    area: IAimp= 1.57: SLPI= .32: LGI=1880. : MNI=.013: SCI=    .0]
00668<         [IaRECimp=  4.00: IaRECper=    4.00]
00669<         [SMN= 99.77: SMX=665.12: SK= .010]
00670< R0002: C00079-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00671>       CONTINUOUS STANDHYD    1.0 01: O-5            60.63      .937 No_date   28:10   12.08  .265      .000
00672<         [XIMP=.13: TIMP=.26]
00673<         [LOSS= 2 : CN= 61.0]
00674<         [Pervious      area: IAper= 4.67: SLPP=1.38: LGP= 550. : MNP=.035: SCP=    .0]
00675<         [Impervious    area: IAimp= 1.57: SLPI=1.38: LGI=1450. : MNI=.013: SCI=    .0]
00676<         [IaRECimp=  4.00: IaRECper=    4.00]
00677<         [SMN= 64.50: SMX=430.01: SK= .010]
00678< R0002: C00080-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00679>       ADD HYD                    1.0 02: OKF-NR        139.27      .502 No_date   29:20    8.65  n/a      .000
00680>                              +    1.0 02: O-3            39.67      .402 No_date   28:28   11.03  n/a      .000
00681>                              +    1.0 02: O-5            60.63      .937 No_date   28:10   12.08  n/a      .000
00682>                              +    1.0 02: O-6            16.46      .042 No_date   28:47    6.40  n/a      .000
00683>                          SUM=     1.0 01: PT1           256.03     1.441 No_date   28:30    9.69  n/a      .000
00684< R0002: C00081-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00685>       CONTINUOUS NASHYD      1.0 01: O-7             5.28      .024 No_date   28:38    8.02  .176      .000
00686<         [CN= 54.0: N= 3.00: Tp= .60]
00687<         [IaREC= 4.00: SMN= 87.01: SMX=580.07: SK= .010]
00688<         [InterEventTime= 12.00]
00689< R0002: C00082-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00690>       ADD HYD                    1.0 02: PT1           256.03     1.441 No_date   28:30    9.69  n/a      .000
00691>                              +    1.0 02: O-7             5.28      .024 No_date   28:38    8.02  n/a      .000
00692>                          SUM=     1.0 01: PF            261.31     1.465 No_date   28:30    9.65  n/a      .000
00693< R0002: C00083-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00694>       ROUTE CHANNEL    ->     1.0 02: PF            261.31     1.465 No_date   28:30    9.65  n/a      .000
00695<        [RDT= 1.00] out<-     1.0 01: DRAI NI       261.31     1.446 No_date   28:36    9.65  n/a      .000
00696<         [L/S/n=  302./1.000/.043]
00697<         {Vmx=  .953: Dmx=  .543}
00698< R0002: C00084-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00699>       CONTINUOUS NASHYD      1.0 01: DI             1.17      .026 No_date   28:12   15.66  .344      .000
00700<         [CN= 84.0: N= 3.00: Tp= .28]
00701<         [IaREC= 4.00: SMN= 21.09: SMX=140.62: SK= .010]
00702<         [InterEventTime= 12.00]
00703< R0002: C00085-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00704>       CONTINUOUS STANDHYD    1.0 01: AI             2.50      .256 No_date   28:01   34.35  .755      .000
00705<         [XIMP=.68: TIMP=.85]
00706<         [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    Fe=    .00]
00707<         [Pervious      area: IAper= 4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
00708<         [Impervious    area: IAimp= 1.57: SLPI=  .50: LGI=  224. : MNI=.013: SCI=    .0]
00709<         [IaRECimp=  4.00: IaRECper=    4.00]
00710< R0002: C00086-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00711>       ROUTE RESERVOIR  ->     1.0 02: AI             2.50      .256 No_date   28:01   34.35  n/a      .000
00712>                        out <=    1.0 01: AI-STR         2.50      .048 No_date   28:35   34.35  n/a      .000
00713>                     overflow <=    1.0 03: AI-OVF          .00      .000 No_date    0:00     .00  n/a      .000
00714<         [MxStOlked=.4261E-01   m3,  TotOrfVol=.0000E+00   m3,  N-Orf=    0,  TotDurOrf=    0. hrs]
00715< R0002: C00087-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00716>       CONTINUOUS STANDHYD    1.0 01: ST-2            .59      .044 No_date   28:00   25.32  .556      .000
00717<         [XIMP=.46: TIMP=.57]
00718<         [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:    Fe=    .00]
00719<         [Pervious      area: IAper= 4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
00720<         [Impervious    area: IAimp= 1.57: SLPI=  .50: LGI=  109. : MNI=.013: SCI=    .0]
00721<         [IaRECimp=  4.00: IaRECper=    4.00]
00722< R0002: C00088-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00723>       ROUTE RESERVOIR  ->     1.0 02: ST-2            .59      .044 No_date   28:00   25.32  n/a      .000
00724>                        out <=    1.0 01: ST2STR         .59      .041 No_date   28:02   25.32  n/a      .000
00725>                     overflow <=    1.0 03: ST2OVF          .00      .000 No_date    0:00     .00  n/a      .000
00726<         [MxStOlked=.7924E-03   m3,  TotOrfVol=.0000E+00   m3,  N-Orf=    0,  TotDurOrf=    0. hrs]
00727< R0002: C00089-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00728>       CONTINUOUS NASHYD      1.0 01: O-8            60.55      .405 No_date   29:05   12.46  .274      .000
00729<         [CN= 69.0: N= 3.00: Tp= 1.00]
00730<         [IaREC= 4.00: SMN= 44.82: SMX=298.82: SK= .010]
00731<         [InterEventTime= 12.00]
00732< R0002: C00090-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00733>       ROUTE PIPE       ->     1.0 02: O-8            60.55      .405 No_date   29:05   12.46  n/a      .000
00734<        [RDT= 1.00] out<-     1.0 01: OKPI PE        60.55      .402 No_date   29:10   12.46  n/a      .000
00735<         [L/S/n=  335./ .100/.013]
00736<         {Vmx=  .842: Dmx=  .265}
00737<         [HGTH= 1.20: WDTH= 1.80]
00738< R0002: C00091-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00739>       ADD HYD                    1.0 02: DRAI NI       261.31     1.446 No_date   28:36    9.65  n/a      .000
00740>                              +    1.0 02: DI             1.17      .026 No_date   28:12   15.66  n/a      .000
00741>                              +    1.0 02: AI-STR         2.50      .048 No_date   28:35   34.35  n/a      .000
00742>                              +    1.0 02: AI-OVF          .00      .000 No_date    0:00     .00  n/a      .000
00743>                              +    1.0 02: ST2STR          .59      .041 No_date   28:02   25.32  n/a      .000
00744>                              +    1.0 02: ST2OVF          .00      .000 No_date    0:00     .00  n/a      .000
00745>                              +    1.0 02: OKPI PE       60.55      .402 No_date   29:10   12.46  n/a      .000
00746>                          SUM=     1.0 01: ST2-1N        326.12     1.834 No_date   28:39   10.41  n/a      .000
00747< R0002: C00092-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
00748>       CONTINUOUS STANDHYD    1.0 01: A7             3.51      .348 No_date   28:02   34.35  .755      .000
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00749>        [ XI M=. 68: TI M=. 85]
00750>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
00751>        [ P ervious      area:  I Aper=  4. 67: SLPP=  .50: LGP=   50. : MNP=. 250: SCP=    .0]
00752>        [ I mpervious    area:  I Aimp=  1. 57: SLPI=  .50: LGI=  265. : MNI=. 013: SCI=    .0]
00753>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
00754> R0002: C00093- - - -
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01123>        [ SMN= 31.15:  SMX=207.66:  SK= .010]
01124> R0002: C00153-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01125>      ROUTE RESERVOIR ->      1.0 02: W_CLAR_BRA      73.29      4.584 No_date   28:07   31.34  n/a     .000
01126>                  out <=      1.0 01: MS_P10          73.29      1.033 No_date   28:50   31.34  n/a     .000
01127>              overflow <=     1.0 03: P10- OVF          .00       .000 No_date   0:00     .00  n/a     .000
01128>        {MsStoUsed= 7493E+00  m3,  Tot Ovf Vol = 0000E+00  m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs}
01129> R0002: C00154-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01130>      CONTINUOUS STANDHYD     1.0 01: S- 1- FO- D2       4.94       .383 No_date   28:01   28.56 .628      .000
01131>        [ XI M= .55: TI M= .55]
01132>        [ LOSS= 2 : CN= 74.0]
01133>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
01134>        [ Impervious    area: I Aimp= 1. 57: SLPI=  .50: LGI= 181. : MNI=. 013: SCI=    .0]
01135>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01136>        [ SMN= 36. 67:  SMX=244. 49:  SK= .010]
01137> R0002: C00155-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01138>      ADD HYD                 1.0 02: FOSTER- OUT      325.44      3.894 No_date   29:12   28.56  n/a     .000
01139>                      +       1.0 02: S- 1- FO- D2       4.94       .383 No_date   28:01   28.56  n/a     .000
01140>                  SUM=        1.0 01: 980              330.38      3.925 No_date   29:11   28.56  n/a     .000
01141> R0002: C00156-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01142>      SAVE HYD                1.0 01: 980              330.38      3.925 No_date   29:11   28.56  n/a     .000
01143>        fname : 980. 0002
01144>        remark: Total Flows at Station 980 on Foster Drain
01145> #
01146> # Hydrograph from Node Foster SWM ( Station 980) to Node at station 520
01147> # Channel X- Section obtained from RVCA Hydraulic Model - Station 980
01148> #
01149> R0002: C00157-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01150>      ROUTE CHANNEL   ->      1.0 02: 980              330.38      3.925 No_date   29:11   28.56  n/a     .000
01151>        [ RDT= 1. 00]  out <-      1.0 01: 980- out   330.38      3.801 No_date   29:21   28.56  n/a     .000
01152>        [ L/ S/ n=   460. /  .587/ .035]
01153>        [ Vmx=   .544: Dmx=  1. 093]
01154> R0002: C00158-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01155>      CONTINUOUS STANDHYD     1.0 01: S- 1- FO- D1       5.11       .460 No_date   28:01   31.98  .703     .000
01156>        [ XI M= .65: TI M= .65]
01157>        [ LOSS= 2 : CN= 74.0]
01158>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
01159>        [ Impervious    area: I Aimp= 1. 57: SLPI=  .50: LGI= 185. : MNI=. 013: SCI=    .0]
01160>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01161>        [ SMN= 36. 67:  SMX=244. 49:  SK= .010]
01162> R0002: C00159-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01163>      ADD HYD                 1.0 02: 980- out         330.38      3.801 No_date   29:21   28.56  n/a     .000
01164>                      +       1.0 02: S- 1- FO- D1       5.11       .460 No_date   28:01   31.98  n/a     .000
01165>                  SUM=        1.0 01: 520              335.49      3.832 No_date   29:21   28.62  n/a     .000
01166> R0002: C00160-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01167>      SAVE HYD                1.0 01: 520              335.49      3.832 No_date   29:21   28.62  n/a     .000
01168>        fname : 520. 0002
01169>        remark: Total Flows at Station 520 on Foster Drain
01170> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
01171> # Channel X- Section obtained from RVCA Hydraulic Model - Station 520
01172> #
01173> R0002: C00161-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01174>      ROUTE CHANNEL   ->      1.0 02: 520              335.49      3.832 No_date   29:21   28.62  n/a     .000
01175>        [ RDT= 1. 00]  out <-      1.0 01: 520- out   335.49      3.792 No_date   29:34   28.62  n/a     .000
01176>        [ L/ S/ n=   860. /  .587/ .035]
01177>        [ Vmx=  1. 197: Dmx=   .521]
01178> R0002: C00162-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01179>      CONTINUOUS STANDHYD     1.0 01: S- 1- FO- F- D      14.96      1.215 No_date   28:02   31.98  .703     .000
01180>        [ XI M= .65: TI M= .65]
01181>        [ LOSS= 2 : CN= 74.0]
01182>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
01183>        [ Impervious    area: I Aimp= 1. 57: SLPI=  .50: LGI= 316. : MNI=. 013: SCI=    .0]
01184>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01185>        [ SMN= 36. 67:  SMX=244. 49:  SK= .010]
01186> R0002: C00163-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01187>      CONTINUOUS STANDHYD     1.0 01: S- 1- D8           5.27       .475 No_date   28:02   23.32  .512     .000
01188>        [ XI M= .32: TI M= .65]
01189>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
01190>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01191>        [ Impervious    area: I Aimp=  .79: SLPI=  .75: LGI= 187. : MNI=. 013: SCI=    .0]
01192>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01193> R0002: C00164-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01194>      CONTINUOUS NASHYD       1.0 01: S- 1- A           75.88       .912 No_date   28:37   14.83  .326     .000
01195>        [ CN= 77. 0:  N= 3. 00:  Tp=   .62]
01196>        [ I a RECP mp=   4. 00:  SMN=  31. 15:  SMX=207. 66:  SK= .010]
01197>        [ Inter Event Time=   12. 00]
01198> R0002: C00165-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01199>      CONTINUOUS NASHYD       1.0 01: W_CLAR_UND        35.65       .286 No_date   29:12   14.83  .326     .000
01200>        [ CN= 77. 0:  N= 3. 00:  Tp= 1. 10]
01201>        [ I a RECP mp=   4. 00:  SMN=  31. 15:  SMX=207. 66:  SK= .010]
01202>        [ Inter Event Time=   12. 00]
01203> R0002: C00166-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01204>      ADD HYD                 1.0 02: N_FO             53577. 82   47. 426 No_date   35:25   12. 82  n/a     .000
01205>                      +       1.0 02: 520- out         335. 49      3. 792 No_date   29:34   28. 62  n/a     .000
01206>                      +       1.0 02: MS_P10            73. 29      1. 033 No_date   28:50   31. 34  n/a     .000
01207>                      +       1.0 02: P10- OVF            .00       .000 No_date   0:00     .00  n/a     .000
01208>                      +       1.0 02: W_CLAR_UND        35. 65       .286 No_date   29:12   14. 83  n/a     .000
01209>                      +       1.0 02: S- 1- FO- F- D    14. 96      1. 215 No_date   28:02   31. 98  n/a     .000
01210>                      +       1.0 02: S- 1- D8           5. 27       .475 No_date   28:02   23. 32  n/a     .000
01211>                      +       1.0 02: S- 1- A           75. 88       .912 No_date   28:37   14. 83  n/a     .000
01212>                  SUM=        1.0 01: SN_FO            54118. 36   49. 014 No_date   34:32   12. 96  n/a     .000
01213> R0002: C00167-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01214>      SAVE HYD                1.0 01: SN_FO            54118. 36   49. 014 No_date   34:32   12. 96  n/a     .000
01215>        fname : SN_FO. 0002
01216>        remark: Total Flows at Foster Drain
01217> # Hydrograph from Node Foster routed to Node at Cedarview Road
01218> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6016
01219> #
01220> R0002: C00168-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01221>      ROUTE CHANNEL   ->      1.0 02: SN_FO            54118. 36   49. 014 No_date   34:32   12. 96  n/a     .000
01222>  *     [ RDT= 1. 00]  out <-      1.0 01: N_CE         54118. 36   49. 006 No_date   34:39   12. 96  n/a     .000
01223>        [ L/ S/ n=   159. /  .082/ .035]
01224>        [ Vmx=  1. 113: Dmx=  2. 623]
01225> #*************************************************************************
01226> #     Catchment S- 1
01227> #     - To Jock River (north and south of Jock)
01228> #     - Primarily agricultural fields; portion of sand quarry
01229> #*************************************************************************
01230> R0002: C00169-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01231>      CONTINUOUS NASHYD       1.0 01: S- 1- B           55. 36       .825 No_date   28:24   14. 83  .326     .000
01232>        [ CN= 77. 0:  N= 3. 00:  Tp=   .45]
01233>        [ I a RECP mp=   4. 00:  SMN=  31. 15:  SMX=207. 66:  SK= .010]
01234>        [ Inter Event Time=   12. 00]
01235> #     - JFSA 2021- 02- 24  change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
01236> #     - JFSA 2021- 02- 24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore. "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
01237> #     - JFSA 2021- 01- 19, after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymore
01238> R0002: C00170-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01239>      CONTINUOUS STANDHYD     1.0 01: S- 1- D1          21. 67      1. 802 No_date   28:02   32. 20  .707     .000
01240>        [ XI M= .65: TI M= .65]
01241>        [ LOSS= 2 : CN= 75. 0]
01242>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01243>        [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 380. : MNI=. 013: SCI=    .0]
01244>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01245>        [ SMN= 33. 81:  SMX=225. 43:  SK= .010]
01246> R0002: C00171-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01247>      CONTINUOUS STANDHYD     1.0 01: S- 1- D4           3. 28       .322 No_date   28:00   32. 20  .707     .000
01248>        [ XI M= .65: TI M= .65]
01249>        [ LOSS= 2 : CN= 75. 0]
01250>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01251>        [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 148. : MNI=. 013: SCI=    .0]
01252>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01253>        [ SMN= 33. 81:  SMX=225. 43:  SK= .010]
01254> R0002: C00172-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01255>      CONTINUOUS STANDHYD     1.0 01: S- 1- D5          12. 84      1. 124 No_date   28:02   32. 20  .707     .000
01256>        [ XI M= .65: TI M= .65]
01257>        [ LOSS= 2 : CN= 75. 0]
01258>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01259>        [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 293. : MNI=. 013: SCI=    .0]
01260>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01261>        [ SMN= 33. 81:  SMX=225. 43:  SK= .010]
01262> R0002: C00173-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01263>      CONTINUOUS STANDHYD     1.0 01: S- 1- D6           1. 75       .176 No_date   28:00   32. 20  .707     .000
01264>        [ XI M= .65: TI M= .65]
01265>        [ LOSS= 2 : CN= 75. 0]
01266>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01267>        [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 108. : MNI=. 013: SCI=    .0]
01268>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01269>        [ SMN= 33. 81:  SMX=225. 43:  SK= .010]
01270> R0002: C00174-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01271>      CONTINUOUS STANDHYD     1.0 01: S- 1- D7           2. 03       .204 No_date   28:00   32. 20  .707     .000
01272>        [ XI M= .65: TI M= .65]
01273>        [ LOSS= 2 : CN= 75. 0]
01274>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01275>        [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 116. : MNI=. 013: SCI=    .0]
01276>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01277>        [ SMN= 33. 81:  SMX=225. 43:  SK= .010]
01278> #     Catchment W_CLAR
01279> #     - To West Clarke Drain (south of the Jock)
01280> #     - Subdivision with 43% imp. as per Barrhaven South MSS
01281> #     - 2020- 11- 30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)- 11
01282> #     - 2020- 11- 30 split CLARKE Drainage Area to MAJOR and ALL
01283> #*************************************************************************
01284> R0002: C00175-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01285>      CONTINUOUS STANDHYD     1.0 01: W_CLAR_MI          1. 77       .141 No_date   28:00   27. 78  .610     .000
01286>        [ XI M= .46: TI M= .59]
01287>        [ LOSS= 2 : CN= 77. 0]
01288>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01289>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 109. : MNI=. 013: SCI=    .0]
01290>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01291>        [ SMN= 31. 15:  SMX=207. 66:  SK= .010]
01292> # 5- Year + 12% Capture
01293> R0002: C00176-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01294>      ROUTE RESERVOIR ->      1.0 02: W_CLAR_MI          1. 77       .141 No_date   28:00   27. 78  n/a     .000
01295>                  out <=      1.0 01: W_CLAR_MIn         1. 77       .141 No_date   28:00   27. 78  n/a     .000
01296>              overflow <=     1.0 03: W_CLAR_MIj          .00       .000 No_date   0:00     .00  n/a     .000
01297>        {MsStoUsed= 6675E- 04  m3,  Tot Ovf Vol = 0000E+00  m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs}
01298> R0002: C00177-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01299>      CONTINUOUS STANDHYD     1.0 01: W_CLAR_ALL        119. 40      7. 746 No_date   28:06   31. 34  .689     .000
01300>        [ XI M= .60: TI M= .65]
01301>        [ LOSS= 2 : CN= 77. 0]
01302>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01303>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 892. : MNI=. 013: SCI=    .0]
01304>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01305>        [ SMN= 31. 15:  SMX=207. 66:  SK= .010]
01306> R0002: C00178-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01307>      ADD HYD                 1.0 02: W_CLAR_ALL        119. 40      7. 746 No_date   28:06   31. 34  n/a     .000
01308>                      +       1.0 02: W_CLAR_MIj          .00       .000 No_date   0:00     .00  n/a     .000
01309>                  SUM=        1.0 01: W_CLAR           119. 40      7. 746 No_date   28:06   31. 34  n/a     .000
01310>
01311> R0002: C00179-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01312>      SAVE HYD                1.0 01: W_CLAR           119. 40      7. 746 No_date   28:06   31. 34  n/a     .000
01313>        fname : W_CLAR. 0002
01314>        remark: Total Flows to West Clarke
01315> #*************************************************************************
01316> #     - Rating curve obtained from Barrhaven South MSS modeling
01317> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
01318> #*************************************************************************
01319> R0002: C00180-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01320>      ROUTE RESERVOIR ->      1.0 02: W_CLAR           119. 40      7. 746 No_date   28:06   31. 34  n/a     .000
01321>                  out <=      1.0 02: MS_P2            119. 40       .816 No_date   29:25   31. 34  n/a     .000
01322>              overflow <=     1.0 03: P2- OVF             .00       .000 No_date   0:00     .00  n/a     .000
01323>        {MsStoUsed= 2096E+01  m3,  Tot Ovf Vol = 0000E+00  m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs}
01324> #*************************************************************************
01325> R0002: C00181-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01326>      ADD HYD                 1.0 02: N_CE             54118. 36   49. 006 No_date   34:39   12. 96  n/a     .000
01327>                      +       1.0 02: S- 1- D8           3. 28       .322 No_date   28:00   32. 20  n/a     .000
01328>                      +       1.0 02: S- 1- D5          12. 84      1. 124 No_date   28:02   32. 20  n/a     .000
01329>                      +       1.0 02: MS_P2            119. 40       .816 No_date   29:25   31. 34  n/a     .000
01330>                      +       1.0 02: P2- OVF             .00       .000 No_date   0:00     .00  n/a     .000
01331>                  SUM=        1.0 01: SN_CE            54253. 88   49. 530 No_date   34:38   13. 00  n/a     .000
01332> R0002: C00182-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01333>      SAVE HYD                1.0 01: SN_CE            54253. 88   49. 530 No_date   34:38   13. 00  n/a     .000
01334>        fname : SN_CE. 0002
01335>        remark: Total Flows before Station 5737 on Jock River
01336> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5737
01337> # 2021- 02- 25 add station 5737 before station 5002. Station 5737 was extracted from the HEC- RAS model  T: \ PROJ \ 1474- 16 \ Des
01338> # JFSA 2021- 03- 02  change the slope to 0. 0175% instead of 0. 02593 to stabilize the model
01339> R0002: C00183-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01340>      ROUTE CHANNEL   ->      1.0 02: SN_CE            54253. 88   49. 530 No_date   34:38   13. 00  n/a     .000
01341>  *     [ RDT= 1. 00]  out <-      1.0 01: 5737       54253. 88   48. 266 No_date   37:41   13. 00  n/a     .000
01342>        [ L/ S/ n=   270. /  .018/ .035]
01343>        [ Vmx=  .610: Dmx=  3. 450]
01344> R0002: C00184-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01345>      ADD HYD                 1.0 02: 5737             54253. 88   48. 266 No_date   37:41   13. 00  n/a     .000
01346>                      +       1.0 02: S- 1- D1           21. 67      1. 802 No_date   28:02   32. 20  n/a     .000
01347>                      +       1.0 02: S- 1- D6            1. 75       .176 No_date   28:00   32. 20  n/a     .000
01348>                      +       1.0 02: S- 1- D7            2. 03       .204 No_date   28:00   32. 20  n/a     .000
01349>                  SUM=        1.0 01: 5002             54279. 33   48. 297 No_date   37:41   13. 01  n/a     .000
01350> R0002: C00185-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01351>      SAVE HYD                1.0 01: 5002             54279. 33   48. 297 No_date   37:41   13. 01  n/a     .000
01352>        fname : 5002. 0002
01353>        remark: Total Flows before Station 5002 on Jock River
01354> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
01355> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5002
01356> # JFSA 2021- 02- 19 Change the slope from 0. 01 % (as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
01357> # JFSA 2021- 02- 19 Change to have ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
01358> # JFSA 2021- 02- 26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
01359> R0002: C00186-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01360>      ROUTE CHANNEL   ->      1.0 02: 5002             54279. 33   48. 297 No_date   37:41   13. 01  n/a     .000
01361>        [ RDT= 1. 00]  out <-      1.0 01: N_WCa      54279. 33   48. 300 No_date   37:38   13. 01  n/a     .000
01362>        [ L/ S/ n=   245. /  .095/ .035]
01363>        [ Vmx=   .958: Dmx=  2. 005]
01364> R0002: C00187-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01365>      ROUTE CHANNEL   ->      1.0 02: N_WCa            54279. 33   48. 300 No_date   37:38   13. 01  n/a     .000
01366>        [ RDT= 1. 00]  out <-      1.0 01: N_WCb      54279. 33   48. 303 No_date   37:37   13. 01  n/a     .000
01367>        [ L/ S/ n=   245. /  .095/ .035]
01368>        [ Vmx=   .958: Dmx=  2. 005]
01369> R0002: C00188-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01370>      ROUTE CHANNEL   ->      1.0 02: N_WCb            54279. 33   48. 303 No_date   37:37   13. 01  n/a     .000
01371>        [ RDT= 1. 00]  out <-      1.0 01: N_WC       54279. 33   48. 466 No_date   39:38   13. 01  n/a     .000
01372>        [ L/ S/ n=   245. /  .095/ .035]
01373>        [ Vmx=   .958: Dmx=  2. 005]
01374> #*************************************************************************
01375> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
01376> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
01377> #
01378> R0002: C00189-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01379>      ROUTE CHANNEL   ->      1.0 02: N_WC             54279. 33   48. 466 No_date   39:38   13. 01  n/a     .000
01380>        [ RDT= 1. 00]  out <-      1.0 01: N_KB       54279. 33   48. 418 No_date   39:39   13. 01  n/a     .000
01381>        [ L/ S/ n=  1020. /  .050/ .035]
01382>        [ Vmx=   .847: Dmx=  2. 418]
01383> #*************************************************************************
01384> #     Catchment KEN_BU
01385> #     - To Kennedy- Burnett SWM Facility
01386> #     - Outlets to Fraser- Clarke Drain (north of the Jock)
01387> #     - Medium density residential subdivision
01388> #*************************************************************************
01389> #*************************************************************************
01390> #     Existing Kennedy- Burnett SWM Facility
01391> #     - Rating curve obtained from URTKHP
01392> #     - Tributary Drainage Area to Pond = 160 ha
01393> #*************************************************************************
01394> R0002: C00190-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01395>      CONTINUOUS STANDHYD     1.0 01: KB- 01A           40. 82      1. 627 No_date   28:18   14. 35  .315     .000
01396>        [ XI M= .10: TI M= .40]
01397>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
01398>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
01399>        [ Impervious    area: I Aimp=  .79: SLPI= . 50: LGI= 522. : MNI=. 013: SCI=    .0]
01400>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01401> R0002: C00191-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01402>      COMPUTE DUALHYD         1.0 01: KB- 01A           40. 82      1. 627 No_date   28:18   14. 35  n/a     .000
01403>        Major System    /     1.0 02: KB- 01A- MI         .00       .000 No_date   0:00     .00  n/a     .000
01404>        Minor System    \     1.0 03: KB- 01A- MN       40. 82      1. 627 No_date   28:18   14. 35  n/a     .000
01405>        {MjSysSto= .0000E+00,  Tot Ovf Vol = .0000E+00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs}
01406> R0002: C00192-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01407>      ADD HYD                 1.0 02: KB- 01A- MI         .00       .000 No_date   0:00     .00  n/a     .000
01408>                      +       1.0 02: KB- 01A- MN       40. 82      1. 627 No_date   28:18   14. 35  n/a     .000
01409>                  SUM=        1.0 01: KB- 01A- S        40. 82      1. 627 No_date   28:18   14. 35  n/a     .000
01410> R0002: C00193-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01411>      CONTINUOUS STANDHYD     1.0 01: KB- 01B           31. 10      1. 062 No_date   28:08   16. 28  .358     .000
01412>        [ XI M= .19: TI M= .38]
01413>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
01414>        [ Pervious      area: I Aper= 4. 67: SLPP=  .42: LGP=  40. : MNP=. 250: SCP=    .0]
01415>        [ Impervious    area: I Aimp=  .79: SLPI= . 42: LGI= 455. : MNI=. 013: SCI=    .0]
01416>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01417> R0002: C00194-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01418>      COMPUTE DUALHYD         1.0 01: KB- 01B           31. 10      1. 062 No_date   28:08   16. 28  n/a     .000
01419>        Major System    /     1.0 02: KB- 01B- MI         .00       .000 No_date   0:00     .00  n/a     .000
01420>        Minor System    \     1.0 03: KB- 01B- MN       31. 10      1. 062 No_date   28:08   16. 28  n/a     .000
01421>        {MjSysSto= .0000E+00,  Tot Ovf Vol = .0000E+00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs}
01422> R0002: C00195-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01423>      ADD HYD                 1.0 02: KB- 01B- MI         .00       .000 No_date   0:00     .00  n/a     .000
01424>                      +       1.0 02: KB- 01B- MN       31. 10      1. 062 No_date   28:08   16. 28  n/a     .000
01425>                  SUM=        1.0 01: KB- 01B- S        31. 10      1. 062 No_date   28:08   16. 28  n/a     .000
01426> R0002: C00196-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01427>      CONTINUOUS STANDHYD     1.0 01: KB- 01C           13. 78       .776 No_date   28:06   17. 09  .375     .000
01428>        [ XI M= .20: TI M= .41]
01429>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
01430>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01431>        [ Impervious    area: I Aimp=  .79: SLPI= . 50: LGI= 303. : MNI=. 013: SCI=    .0]
01432>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01433> R0002: C00197-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01434>      COMPUTE DUALHYD         1.0 01: KB- 01C           13. 78       .776 No_date   28:06   17. 09  n/a     .000
01435>        Major System    /     1.0 02: KB- 01C- MI         .00       .000 No_date   0:00     .00  n/a     .000
01436>        Minor System    \     1.0 03: KB- 01C- MN       13. 78       .776 No_date   28:06   17. 09  n/a     .000
01437>        {MjSysSto= .0000E+00,  Tot Ovf Vol = .0000E+00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs}
01438> R0002: C00198-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01439>      ADD HYD                 1.0 02: KB- 01C- MI         .00       .000 No_date   0:00     .00  n/a     .000
01440>                      +       1.0 02: KB- 01C- MN       13. 78       .776 No_date   28:06   17. 09  n/a     .000
01441>                  SUM=        1.0 01: KB- 01C- S        13. 78       .776 No_date   28:06   17. 09  n/a     .000
01442> R0002: C00199-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01443>      CONTINUOUS STANDHYD     1.0 01: KB- 03            84. 78      3. 788 No_date   28:12   16. 73  .368     .000
01444>        [ XI M= .20: TI M= .39]
01445>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
01446>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01447>        [ Impervious    area: I Aimp=  .79: SLPI= . 63: LGI= 752. : MNI=. 013: SCI=    .0]
01448>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01449> R0002: C00200-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01450>      COMPUTE DUALHYD         1.0 01: KB- 03            84. 78      3. 788 No_date   28:12   16. 73  n/a     .000
01451>        Major System    /     1.0 02: KB- 03- MI          .00       .000 No_date   0:00     .00  n/a     .000
01452>        Minor System    \     1.0 03: KB- 03- MN        84. 78      3. 788 No_date   28:12   16. 73  n/a     .000
01453>        {MjSysSto= .0000E+00,  Tot Ovf Vol = .0000E+00,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs}
01454> R0002: C00201-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01455>      ADD HYD                 1.0 02: KB- 03- MI          .00       .000 No_date   0:00     .00  n/a     .000
01456>                      +       1.0 02: KB- 03- MN        84. 78      3. 788 No_date   28:12   16. 73  n/a     .000
01457>                  SUM=        1.0 01: KB- 03- S         84. 78      3. 788 No_date   28:12   16. 73  n/a     .000
01458> R0002: C00202-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01459>      CONTINUOUS STANDHYD     1.0 01: KB- 04            6. 95       .792 No_date   28:01   38. 80  .853     .000
01460>        [ XI M= .85: TI M= .85]
01461>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
01462>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
01463>        [ Impervious    area: I Aimp=  .94: SLPI= . 50: LGI= 215. : MNI=. 013: SCI=    .0]
01464>        [ I a RECP mp=   4. 00: I a RECper=    4. 00]
01465> R0002: C00203-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
01466>      COMPUTE DUALHYD         1.0 01: KB- 04            6. 95       .792 No_date   28:01   38. 80  n/a     .000
01467>        Major System    /     1.0 02: KB- 04- MI          .00       .000 No_date   0:00     .00  n/a     .000
01468>        Minor System    \     1.0 03: KB- 04- MN        6. 95       .503 No_date   27:53   39. 02  n/a     .000
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01497> R0002: C00209- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01498>      CONTI NUOUS STANDHYD      1. 0  01: KB- 11          4. 03        . 425  No_date   28: 00   32. 17  . 707      . 000
01499>        [ XI MP=. 68: TI MP=. 68]
01500>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01501>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01502>        [ Impervious     area: I Aimp=  . 79: SLPI =2. 00: LGI =  164. : MNI =. 013: SCI =    . 0]
01503>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01504> R0002: C00210- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01505>      COMPUTE DUALHYD           1. 0  01: KB- 11          4. 03        . 425  No_date   28: 00   32. 17  n/ a       . 000
01506>        Major System   /        1. 0  02: KB- 11- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01507>        Minor System   \        1. 0  03: KB- 11- MN      4. 03        . 425  No_date   28: 00   32. 17  n/ a       . 000
01508>        [ MJ SysSt o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01509> R0002: C00211- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01510>      ADD HYD                   1. 0  02: KB- 11- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01511>                           +    1. 0  02: KB- 11- MN      4. 03        . 425  No_date   28: 00   32. 17  n/ a       . 000
01512>                      SUM=      1. 0  01: KB- 11- S       4. 03        . 425  No_date   28: 00   32. 17  n/ a       . 000
01513> R0002: C00212- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01514>      CONTI NUOUS STANDHYD      1. 0  01: S1            4. 99        . 689  No_date   28: 00   41. 29  . 907      . 000
01515>        [ XI MP=. 93: TI MP=. 93]
01516>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01517>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01518>        [ Impervious     area: I Aimp= 1. 57: SLPI =2. 00: LGI =  182. : MNI =. 013: SCI =    . 0]
01519>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01520> R0002: C00213- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01521>      CONTI NUOUS STANDHYD      1. 0  01: KB- 15          2. 15        . 241  No_date   28: 00   37. 11  . 815      . 000
01522>        [ XI MP=. 79: TI MP=. 79]
01523>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01524>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01525>        [ Impervious     area: I Aimp=  . 16: SLPI =  . 30: LGI =  120. : MNI =. 013: SCI =    . 0]
01526>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01527> R0002: C00214- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01528>      ADD HYD                   1. 0  02: KB- 01A- S     40. 82      1. 627  No_date   28: 18   14. 35  n/ a       . 000
01529>                           +    1. 0  02: KB- 01B- S     31. 10      1. 062  No_date   28: 08   16. 28  n/ a       . 000
01530>                           +    1. 0  02: KB- 01C- S     13. 78       . 776  No_date   28: 06   17. 09  n/ a       . 000
01531>                           +    1. 0  02: KB- 03- S      84. 78      3. 788  No_date   28: 12   16. 73  n/ a       . 000
01532>                           +    1. 0  02: KB- 04- S      6. 95        . 503  No_date   27: 53   39. 02  n/ a       . 000
01533>                           +    1. 0  02: KB- 05         5. 19        . 653  No_date   28: 01   41. 29  n/ a       . 000
01534>                           +    1. 0  02: KB- 06- S     12. 93      1. 683  No_date   28: 00   39. 68  n/ a       . 000
01535>                           +    1. 0  02: KB- 11- S      4. 03        . 425  No_date   28: 00   32. 17  n/ a       . 000
01536>                           +    1. 0  02: KB- 15         2. 15        . 241  No_date   28: 00   37. 11  n/ a       . 000
01537>                           +    1. 0  02: S1            4. 99        . 689  No_date   28: 00   41. 29  n/ a       . 000
01538>                      SUM=      1. 0  01: KB- P1        206. 72      9. 491  No_date   28: 02   20. 13  n/ a       . 000
01539> R0002: C00215- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01540>      ROUTE RESERVOI R  - >     1. 0  02: KB- P1        206. 72      9. 491  No_date   28: 02   20. 13  n/ a       . 000
01541>                  out  <=       1. 0  01: KB- P1R       206. 72      8. 405  No_date   28: 13   20. 13  n/ a       . 000
01542>              overflow <=       1. 0  03: KB- P1ovf       . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01543>        [ MxSt oRed=. 3779E+00   m3,  Tot Of Vol =. 0000E+00   m3,  N- Of =     0,  Tot Dur Of =     0. hr s]
01544> R0002: C00216- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01545>      ADD HYD                   1. 0  02: KB- P1R       206. 72      8. 405  No_date   28: 13   20. 13  n/ a       . 000
01546>                           +    1. 0  02: KB- P1ovf       . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01547>                      SUM=      1. 0  01: KB- P1ndd     206. 72      8. 405  No_date   28: 13   20. 13  n/ a       . 000
01548> R0002: C00217- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01549>      SAVE HYD                  1. 0  01: KB- P1ndd     206. 72      8. 405  No_date   28: 13   20. 13  n/ a       . 000
01550>        fname : KB- P1ndd1. 0002
01551>        remark: Total Flows at KB first pond
01552> R0002: C00218- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01553>      CONTI NUOUS STANDHYD      1. 0  01: KB- 07          10. 86      1. 337  No_date   28: 00   39. 32  . 864      . 000
01554>        [ XI MP=. 86: TI MP=. 86]
01555>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01556>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01557>        [ Impervious     area: I Aimp=  . 79: SLPI =2. 00: LGI =  269. : MNI =. 013: SCI =    . 0]
01558>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01559> R0002: C00219- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01560>      COMPUTE DUALHYD           1. 0  01: KB- 07          10. 86      1. 337  No_date   28: 00   39. 32  n/ a       . 000
01561>        Major System   /        1. 0  02: KB- 07- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01562>        Minor System   \        1. 0  03: KB- 07- MN      10. 86      1. 337  No_date   28: 00   39. 32  n/ a       . 000
01563>        [ MJ SysSt o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01564> R0002: C00220- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01565>      ADD HYD                   1. 0  02: KB- 07- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01566>                           +    1. 0  02: KB- 07- MN      10. 86      1. 337  No_date   28: 00   39. 32  n/ a       . 000
01567>                      SUM=      1. 0  01: KB- 07- S       10. 86      1. 337  No_date   28: 00   39. 32  n/ a       . 000
01568> R0002: C00221- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01569>      CONTI NUOUS STANDHYD      1. 0  01: KB- 08          6. 61        . 651  No_date   28: 00   30. 82  . 677      . 000
01570>        [ XI MP=. 64: TI MP=. 64]
01571>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01572>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01573>        [ Impervious     area: I Aimp=  . 79: SLPI =2. 00: LGI =  210. : MNI =. 013: SCI =    . 0]
01574>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01575> R0002: C00222- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01576>      COMPUTE DUALHYD           1. 0  01: KB- 08          6. 61        . 651  No_date   28: 00   30. 82  n/ a       . 000
01577>        Major System   /        1. 0  02: KB- 08- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01578>        Minor System   \        1. 0  03: KB- 08- MN      6. 61        . 651  No_date   28: 00   30. 82  n/ a       . 000
01579>        [ MJ SysSt o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01580> R0002: C00223- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01581>      ADD HYD                   1. 0  02: KB- 08- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01582>                           +    1. 0  02: KB- 08- MN      6. 61        . 651  No_date   28: 00   30. 82  n/ a       . 000
01583>                      SUM=      1. 0  01: KB- 08- S       6. 61        . 651  No_date   28: 00   30. 82  n/ a       . 000
01584> R0002: C00224- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01585>      CONTI NUOUS STANDHYD      1. 0  01: KB- 09          2. 60        . 344  No_date   28: 00   38. 64  . 849      . 000
01586>        [ XI MP=. 86: TI MP=. 86]
01587>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01588>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01589>        [ Impervious     area: I Aimp= 1. 57: SLPI =2. 00: LGI =  132. : MNI =. 013: SCI =    . 0]
01590>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01591> R0002: C00225- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01592>      CONTI NUOUS STANDHYD      1. 0  01: KB- 10_1        2. 37        . 314  No_date   28: 00   38. 64  . 849      . 000
01593>        [ XI MP=. 86: TI MP=. 86]
01594>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01595>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01596>        [ Impervious     area: I Aimp= 1. 57: SLPI =2. 00: LGI =  126. : MNI =. 013: SCI =    . 0]
01597>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01598> R0002: C00226- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01599>      CONTI NUOUS STANDHYD      1. 0  01: KB- 10_2        1. 14        . 153  No_date   28: 00   38. 64  . 849      . 000
01600>        [ XI MP=. 86: TI MP=. 86]
01601>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01602>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01603>        [ Impervious     area: I Aimp= 1. 57: SLPI =2. 00: LGI =  87. : MNI =. 013: SCI =    . 0]
01604>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01605> R0002: C00227- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01606>      CONTI NUOUS STANDHYD      1. 0  01: KB- 12          4. 86        . 581  No_date   28: 00   36. 37  . 799      . 000
01607>        [ XI MP=. 79: TI MP=. 79]
01608>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01609>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01610>        [ Impervious     area: I Aimp= 1. 10: SLPI =2. 00: LGI =  180. : MNI =. 013: SCI =    . 0]
01611>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01612> R0002: C00228- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01613>      COMPUTE DUALHYD           1. 0  01: KB- 12          4. 86        . 581  No_date   28: 00   36. 37  n/ a       . 000
01614>        Major System   /        1. 0  02: KB- 12- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01615>        Minor System   \        1. 0  03: KB- 12- MN      4. 86        . 581  No_date   28: 00   36. 37  n/ a       . 000
01616>        [ MJ SysSt o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01617> R0002: C00229- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01618>      ADD HYD                   1. 0  02: KB- 12- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01619>                           +    1. 0  02: KB- 12- MN      4. 86        . 581  No_date   28: 00   36. 37  n/ a       . 000
01620>                      SUM=      1. 0  01: KB- 12- S       4. 86        . 581  No_date   28: 00   36. 37  n/ a       . 000
01621> R0002: C00230- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01622>      CONTI NUOUS STANDHYD      1. 0  01: KB- 13          10. 19        . 970  No_date   28: 00   30. 82  . 677      . 000
01623>        [ XI MP=. 64: TI MP=. 64]
01624>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01625>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01626>        [ Impervious     area: I Aimp=  . 79: SLPI =2. 00: LGI =  261. : MNI =. 013: SCI =    . 0]
01627>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01628> R0002: C00231- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01629>      COMPUTE DUALHYD           1. 0  01: KB- 13          10. 19        . 970  No_date   28: 00   30. 82  n/ a       . 000
01630>        Major System   /        1. 0  02: KB- 13- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01631>        Minor System   \        1. 0  03: KB- 13- MN      10. 19        . 970  No_date   28: 00   30. 82  n/ a       . 000
01632>        [ MJ SysSt o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01633> R0002: C00232- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01634>      ADD HYD                   1. 0  02: KB- 13- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01635>                           +    1. 0  02: KB- 13- MN      10. 19        . 970  No_date   28: 00   30. 82  n/ a       . 000
01636>                      SUM=      1. 0  01: KB- 13- S       10. 19        . 970  No_date   28: 00   30. 82  n/ a       . 000
01637> R0002: C00233- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01638>      CONTI NUOUS STANDHYD      1. 0  01: KB- 14          5. 47        . 543  No_date   28: 00   30. 82  . 677      . 000
01639>        [ XI MP=. 64: TI MP=. 64]
01640>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01641>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01642>        [ Impervious     area: I Aimp=  . 79: SLPI =2. 00: LGI =  191. : MNI =. 013: SCI =    . 0]
01643>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01644> R0002: C00234- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01645>      COMPUTE DUALHYD           1. 0  01: KB- 14          5. 47        . 543  No_date   28: 00   30. 82  n/ a       . 000
01646>        Major System   /        1. 0  02: KB- 14- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01647>        Minor System   \        1. 0  03: KB- 14- MN      5. 47        . 543  No_date   28: 00   30. 82  n/ a       . 000
01648>        [ MJ SysSt o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01649> R0002: C00235- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01650>      ADD HYD                   1. 0  02: KB- 14- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01651>                           +    1. 0  02: KB- 14- MN      5. 47        . 543  No_date   28: 00   30. 82  n/ a       . 000
01652>                      SUM=      1. 0  01: KB- 14- S       5. 47        . 543  No_date   28: 00   30. 82  n/ a       . 000
01653> R0002: C00236- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01654>      CONTI NUOUS STANDHYD      1. 0  01: KB- 16_2        3. 42        . 337  No_date   28: 01   33. 97  . 746      . 000
01655>        [ XI MP=. 71: TI MP=. 71]
01656>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01657>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01658>        [ Impervious     area: I Aimp=  . 16: SLPI =  . 30: LGI =  151. : MNI =. 013: SCI =    . 0]
01659>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01660> R0002: C00237- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01661>      ADD HYD                   1. 0  02: KB- P1ndd     206. 72      8. 405  No_date   28: 13   20. 13  n/ a       . 000
01662>                           +    1. 0  02: KB- 07- S      10. 86      1. 337  No_date   28: 00   39. 32  n/ a       . 000
01663>                           +    1. 0  02: KB- 08- S      6. 61        . 651  No_date   28: 00   30. 82  n/ a       . 000
01664>                           +    1. 0  02: KB- 09         2. 60        . 344  No_date   28: 00   38. 64  n/ a       . 000
01665>                           +    1. 0  02: KB- 10_1       2. 37        . 314  No_date   28: 00   38. 64  n/ a       . 000
01666>                           +    1. 0  02: KB- 10_2       1. 14        . 153  No_date   28: 00   38. 64  n/ a       . 000
01667>                           +    1. 0  02: KB- 12- S      4. 86        . 581  No_date   28: 00   36. 37  n/ a       . 000
01668>                           +    1. 0  02: KB- 13- S      10. 19        . 970  No_date   28: 00   30. 82  n/ a       . 000
01669>                           +    1. 0  02: KB- 14- S      5. 47        . 543  No_date   28: 00   30. 82  n/ a       . 000
01670>                           +    1. 0  02: KB- 16_2       3. 42        . 337  No_date   28: 01   33. 97  n/ a       . 000
01671>                      SUM=      1. 0  01: KB- P2        254. 24     11. 772  No_date   28: 02   22. 82  n/ a       . 000
01672> R0002: C00238- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01673>      ROUTE RESERVOI R  - >     1. 0  02: KB- P2        254. 24     11. 772  No_date   28: 02   22. 82  n/ a       . 000
01674>                  out  <=       1. 0  01: KB- P2R       254. 24      9. 930  No_date   28: 12   22. 82  n/ a       . 000
01675>              overflow <=       1. 0  03: KB- P2ovf       . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01676>        [ MxSt oRed=. 4507E+00   m3,  Tot Of Vol =. 0000E+00   m3,  N- Of =     0,  Tot Dur Of =     0. hr s]
01677> R0002: C00239- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01678>      ADD HYD                   1. 0  02: KB- P2R       254. 24      9. 930  No_date   28: 12   22. 82  n/ a       . 000
01679>                           +    1. 0  02: KB- P2ovf       . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01680>                      SUM=      1. 0  01: KB- P2ndd     254. 24      9. 930  No_date   28: 12   22. 82  n/ a       . 000
01681> R0002: C00240- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01682>      SAVE HYD                  1. 0  01: KB- P2ndd     254. 24      9. 930  No_date   28: 12   22. 82  n/ a       . 000
01683>        fname : KB- P2ndd2. 0002
01684>        remark: Total Flows at KB second pond
01685> R0002: C00241- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01686>      CONTI NUOUS STANDHYD      1. 0  01: KB- 16_1        2. 80        . 293  No_date   28: 01   35. 54  . 781      . 000
01687>        [ XI MP=. 75: TI MP=. 75]
01688>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01689>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01690>        [ Impervious     area: I Aimp=  . 16: SLPI =  . 30: LGI =  137. : MNI =. 013: SCI =    . 0]
01691>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01692> R0002: C00242- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01693>      ADD HYD                   1. 0  02: KB- Pond2      254. 24      9. 930  No_date   28: 12   22. 82  n/ a       . 000
01694>                           +    1. 0  02: KB- 16_1        2. 80        . 293  No_date   28: 01   35. 54  n/ a       . 000
01695>                      SUM=      1. 0  01: KB- P3        257. 04     10. 049  No_date   28: 11   22. 96  n/ a       . 000
01696> R0002: C00243- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01697>      ROUTE RESERVOI R  - >     1. 0  02: KB- P3        257. 04     10. 049  No_date   28: 11   22. 96  n/ a       . 000
01698>                  out  <=       1. 0  01: KB- P3R       18. 54        . 051  No_date   18: 09   22. 96  n/ a       . 000
01699>              overflow <=       1. 0  03: KB- P3ovf     238. 50      9. 997  No_date   28: 11   22. 96  n/ a       . 000
01700>        [ MxSt oRed=. 2001E- 02   m3,  Tot Of Vol =. 5477E+01   m3,  N- Of =     1,  Tot Dur Of =    22. hr s]
01701> R0002: C00244- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01702>      ADD HYD                   1. 0  02: KB- P3R       18. 54        . 051  No_date   18: 09   22. 96  n/ a       . 000
01703>                           +    1. 0  02: KB- P3ovf     238. 50      9. 997  No_date   28: 11   22. 96  n/ a       . 000
01704>                      SUM=      1. 0  01: KB- Pond3     257. 04     10. 048  No_date   28: 11   22. 96  n/ a       . 000
01705> R0002: C00245- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01706>      SAVE HYD                  1. 0  01: KB- Pond3     257. 04     10. 048  No_date   28: 11   22. 96  n/ a       . 000
01707>        fname : KB- Pond3. 0002
01708>        remark: Total Flows at KB third pond
01709> #*************************************************************************
01710> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
01711> #     - TO FRASER- CLARKE DRAI N
01712> #*************************************************************************
01713> R0002: C00246- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01714>      CONTI NUOUS STANDHYD      1. 0  01: FC- 01          8. 03        . 575  No_date   28: 01   23. 89  . 525      . 000
01715>        [ XI MP=. 47: TI MP=. 47]
01716>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01717>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01718>        [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  231. : MNI =. 013: SCI =    . 0]
01719>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01720> R0002: C00247- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01721>      COMPUTE DUALHYD           1. 0  01: FC- 01          8. 03        . 575  No_date   28: 01   23. 89  n/ a       . 000
01722>        Major System   /        1. 0  02: FC- 01- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01723>        Minor System   \        1. 0  03: FC- 01- MN      8. 03        . 575  No_date   28: 01   23. 89  n/ a       . 000
01724>        [ MJ SysSt o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01725> R0002: C00248- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01726>      ADD HYD                   1. 0  02: FC- 01- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01727>                           +    1. 0  02: FC- 01- MN      8. 03        . 575  No_date   28: 01   23. 89  n/ a       . 000
01728>                      SUM=      1. 0  01: FC- 01- S       8. 03        . 575  No_date   28: 01   23. 89  n/ a       . 000
01729> R0002: C00249- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01730>      CONTI NUOUS STANDHYD      1. 0  01: FC- 02          16. 05      1. 936  No_date   28: 01   41. 29  . 907      . 000
01731>        [ XI MP=. 93: TI MP=. 93]
01732>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01733>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01734>        [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  327. : MNI =. 013: SCI =    . 0]
01735>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01736> R0002: C00250- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01737>      COMPUTE DUALHYD           1. 0  01: FC- 02          16. 05      1. 936  No_date   28: 01   41. 29  n/ a       . 000
01738>        Major System   /        1. 0  02: FC- 02- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01739>        Minor System   \        1. 0  03: FC- 02- MN      16. 05      1. 159  No_date   27: 52   41. 31  n/ a       . 000
01740>        [ MJ SysSt o=. 4641E+03,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01741> R0002: C00251- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01742>      ADD HYD                   1. 0  02: FC- 02- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01743>                           +    1. 0  02: FC- 02- MN      16. 05      1. 159  No_date   27: 52   41. 31  n/ a       . 000
01744>                      SUM=      1. 0  01: FC- 02- S       16. 05      1. 159  No_date   27: 52   41. 31  n/ a       . 000
01745> R0002: C00252- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01746>      CONTI NUOUS STANDHYD      1. 0  01: FC- 03          7. 37        . 687  No_date   28: 01   30. 32  . 666      . 000
01747>        [ XI MP=. 64: TI MP=. 64]
01748>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01749>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01750>        [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  222. : MNI =. 013: SCI =    . 0]
01751>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01752> R0002: C00253- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01753>      COMPUTE DUALHYD           1. 0  01: FC- 03          7. 37        . 687  No_date   28: 01   30. 32  n/ a       . 000
01754>        Major System   /        1. 0  02: FC- 03- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01755>        Minor System   \        1. 0  03: FC- 03- MN      7. 37        . 358  No_date   27: 49   30. 49  n/ a       . 000
01756>        [ MJ SysSt o=. 2043E+03,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01757> R0002: C00254- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01758>      ADD HYD                   1. 0  02: FC- 03- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01759>                           +    1. 0  02: FC- 03- MN      7. 37        . 358  No_date   27: 49   30. 49  n/ a       . 000
01760>                      SUM=      1. 0  01: FC- 03- S       7. 37        . 358  No_date   27: 49   30. 49  n/ a       . 000
01761> R0002: C00255- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01762>      CONTI NUOUS STANDHYD      1. 0  01: FC- 04          12. 87      1. 148  No_date   28: 01   30. 32  . 666      . 000
01763>        [ XI MP=. 64: TI MP=. 64]
01764>        [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01765>        [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01766>        [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  293. : MNI =. 013: SCI =    . 0]
01767>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
01768> R0002: C00256- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01769>      COMPUTE DUALHYD           1. 0  01: FC- 04          12. 87      1. 148  No_date   28: 01   30. 32  n/ a       . 000
01770>        Major System   /        1. 0  02: FC- 04- MI      . 00        . 000  No_date   0: 00     . 00  n/ a       . 000
01771>        Minor System   \        1. 0  03: FC- 04- MN      12. 87        . 741  No_date   27: 53   30. 44  n/ a       . 000
01772>        [ MJ SysSt o=. 2134E+03,  Tot Of Vol =. 0000E+00,  N- Of =     0,  Tot Dur Of =     0. hr s]
01773> R0002: C00257- ---------- DTmi n- I D: NHYD- ---
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01871>     SAVE HYD              1. 0 01: SN_KB       54681. 13    48. 551 No_date    39: 29    13. 09   n/a      .000
01872>        fname : SN_KB 0002
01873>        remark: HYD_COMMENT=["Total Flows before Station 3633]
01874> # Hydrograph from Station 3633 to Node Todd
01875> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
01876> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
01877> #
01878> R0002: C00273-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01879>     ROUTE CHANNEL      ->      1. 0 02: SN_KB       54681. 13    48. 551 No_date    39: 29    13. 09   n/a      .000
01880>     [ RDT= 1. 00] out <-       1. 0 01: N_TO        54681. 13    48. 522 No_date    37: 57    13. 09   n/a      .000
01881>        [ L/ S/ n=  608. /  . 247/ . 035]
01882>        [ Vmx= 1. 295 Dmx= 1. 131]
01883> #*************************************************************************
01884> #     Catchment Greenbank
01885> #     - To Greenbank Drain (south of the Jock)
01886> #     - JFSA 2021-01-18 add Greenbank pond as per JFSA_ R598(06)-15, June 2016
01887> #     - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
01888> #*************************************************************************
01889> R0002: C00274-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01890>     CONTINUOUS STANDHYD    1. 0 01: Greenbank     36. 60     2. 954 No_date    28: 02    32. 54   . 715    .000
01891>        [ XI M=  64: TI M=  68]
01892>        [ LOSS= 2 : CN= 77. 0]
01893>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
01894>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=   . 0]
01895>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
01896>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
01897> R0002: C00275-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01898>     ROUTE RESERVOIR ->        1. 0 02: Greenbank     36. 60     2. 954 No_date    28: 02    32. 54   n/a      .000
01899>                     out <=    1. 0 01: GreenB_MN     36. 60      . 569 No_date    28: 38    32. 54   n/a      .000
01900>                overflow <=    1. 0 03: GreenB_MI      . 00      . 000 No_date     0: 00      . 00   n/a      .000
01901>        [ MxSt ol ked=. 6052E+00   m3,  Tot Ov f ol = . 0000E+00   m3,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
01902> R0002: C00276-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01903>     ADD HYD                1. 0 02: N_TO        54681. 13    48. 522 No_date    37: 57    13. 09   n/a      .000
01904>                       +    1. 0 02: GreenB_MI      . 00      . 000 No_date     0: 00      . 00   n/a      .000
01905>                       +    1. 0 02: GreenB_MN     36. 60      . 569 No_date    28: 38    32. 54   n/a      .000
01906>                     SUM=   1. 0 01: GreenB       54717. 73    48. 599 No_date    37: 56    13. 10   n/a      .000
01907> R0002: C00277-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01908>     SAVE HYD               1. 0 01: GreenB      54717. 73    48. 599 No_date    37: 56    13. 10   n/a      .000
01909>        fname : GreenB. 0002
01910>        remark: Total Flows at Greenbank Drain
01911> #*************************************************************************
01912> #     Catchment TODD
01913> #     - To Todd Drain (south of the Jock)
01914> #     - Subdivision with 43% imp. as per Barrhaven South MSS
01915> #     - 2020-11-30 increase imp. based on R598(04)-11
01916> #     - 2020-11-30 update TODD Tributary Drainage Area to  = 146. 015 ha based on R598(04)-11
01917> #     - 2020-11-30 split TODD Drainage Area to MW OR, MINOR, POND and ALL
01918> #*************************************************************************
01919> #     - JFSA 2021-01-19 add "TODD_MN1" as part of Clarke("W_CLAR_M") and remove it from Todd
01920> R0002: C00278-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01921>     CONTINUOUS STANDHYD    1. 0 01: TODD_MN2      2. 10      . 179 No_date    28: 00    28. 91   . 635    .000
01922>        [ XI M=  53: TI M=  57]
01923>        [ LOSS= 2 : CN= 77. 0]
01924>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
01925>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=   . 0]
01926>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
01927>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
01928> R0002: C00279-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01929>     CONTINUOUS STANDHYD    1. 0 01: TODD_MN3       . 12      . 011 No_date    28: 00    28. 91   . 635    .000
01930>        [ XI M=  53: TI M=  57]
01931>        [ LOSS= 2 : CN= 77. 0]
01932>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
01933>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=   . 0]
01934>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
01935>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
01936> R0002: C00280-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01937>     CONTINUOUS STANDHYD    1. 0 01: TODD_MI       30. 23     2. 154 No_date    28: 03    29. 64   . 651    .000
01938>        [ XI M=  52: TI M=  64]
01939>        [ LOSS= 2 : CN= 77. 0]
01940>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
01941>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=   . 0]
01942>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
01943>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
01944> R0002: C00281-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01945>     CONTINUOUS STANDHYD    1. 0 01: TODD_ALL     112. 91     6. 553 No_date    28: 06    28. 70   . 631    .000
01946>        [ XI M=  52: TI M=  57]
01947>        [ LOSS= 2 : CN= 77. 0]
01948>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
01949>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=   . 0]
01950>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
01951>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
01952> R0002: C00282-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01953>     CONTINUOUS STANDHYD    1. 0 01: TODD_P         3. 06      . 295 No_date    28: 00    31. 76   . 698    .000
01954>        [ XI M=  63: TI M=  63]
01955>        [ LOSS= 2 : CN= 77. 0]
01956>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
01957>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 143. : MNI=. 013: SCI=   . 0]
01958>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
01959>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
01960> # 5- Year + 12% Capture
01961> R0002: C00283-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01962>     ROUTE RESERVOIR ->        1. 0 02: TODD_MI       30. 23     2. 154 No_date    28: 03    29. 64   n/a      .000
01963> *                   out <=    1. 0 01: TODD_Min      30. 23     2. 154 No_date    28: 03    29. 64   n/a      .000
01964>                overflow <=    1. 0 03: TODD_Mj        . 00      . 000 No_date     0: 00      . 00   n/a      .000
01965>        [ MxSt ol ked=. 6551E-04   m3,  Tot Ov f ol = . 0000E+00   m3,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
01966> # 5- Year + 12% Capture
01967> R0002: C00284-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01968>     ROUTE RESERVOIR ->        1. 0 02: TODD_MN2      2. 10      . 179 No_date    28: 00    28. 91   n/a      .000
01969>                     out <=    1. 0 01: TODD_MN2n     2. 10      . 179 No_date    28: 00    28. 91   n/a      .000
01970>                overflow <=    1. 0 03: TODD_MNj       . 00      . 000 No_date     0: 00      . 00   n/a      .000
01971>        [ MxSt ol ked=. 6566E-04   m3,  Tot Ov f ol = . 0000E+00   m3,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
01972> R0002: C00285-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01973>     ROUTE RESERVOIR ->        1. 0 02: TODD_MN3       . 12      . 011 No_date    28: 00    28. 91   n/a      .000
01974>                     out <=    1. 0 01: TODD_MNn       . 12      . 010 No_date    28: 00    28. 91   n/a      .000
01975>                overflow <=    1. 0 03: TODD_MNj       . 00      . 000 No_date     0: 00      . 00   n/a      .000
01976>        [ MxSt ol ked=. 6566E-04   m3,  Tot Ov f ol = . 0000E+00   m3,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
01977> R0002: C00286-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01978>     CONTINUOUS STANDHYD    1. 0 01: A2            25. 50     1. 427 No_date    28: 04    25. 60   . 563    .000
01979>        [ XI M=  42: TI M=  52]
01980>        [ LOSS= 2 : CN= 75. 0]
01981>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
01982>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 566. : MNI=. 013: SCI=   . 0]
01983>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
01984>        [ SMN= 33. 81: SMX=225. 43: SK=  . 010]
01985> R0002: C00287-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01986>     COMPUTE DUALHYD        1. 0 01: A2            25. 50     1. 427 No_date    28: 04    25. 60   n/a      .000
01987>        Major System   /        1. 0 02: A2- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
01988>        Minor System   \        1. 0 03: A2- MN        25. 50     1. 427 No_date    28: 04    25. 60   n/a      .000
01989>        [ MjSys St o=. 0000E+00,  Tot Ov f ol = . 0000E+00,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
01990> R0002: C00288-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01991>     ADD HYD                1. 0 02: TODD_MN2n     2. 10      . 179 No_date    28: 00    28. 91   n/a      .000
01992>                       +    1. 0 02: TODD_MN3n      . 12      . 010 No_date    28: 00    28. 91   n/a      .000
01993>                       +    1. 0 02: TODD_Mj        . 00      . 000 No_date     0: 00      . 00   n/a      .000
01994>                       +    1. 0 02: TODD_P         3. 06      . 295 No_date    28: 00    31. 77   n/a      .000
01995>                       +    1. 0 02: TODD_ALL     112. 91     6. 553 No_date    28: 06    28. 70   n/a      .000
01996>                       +    1. 0 02: W_CLAR_Min     1. 77      . 141 No_date    28: 00    27. 78   n/a      .000
01997>                     SUM=   1. 0 01: TODD         119. 95     6. 882 No_date    28: 05    28. 77   n/a      .000
01998> R0002: C00289-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
01999>     SAVE HYD               1. 0 01: TODD          119. 95     6. 882 No_date    28: 05    28. 77   n/a      .000
02000>        fname : TODD 0002
02001>        remark: Total Flows at Todd Drain
02002> #*************************************************************************
02003> #     Todd Pond 3
02004> #     - Rating curve obtained from Barrhaven South MSS modeling
02005> #     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
02006> #*************************************************************************
02007> R0002: C00290-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02008>     ROUTE RESERVOIR ->        1. 0 02: TODD          119. 95     6. 882 No_date    28: 05    28. 77   n/a      .000
02009>                     out <=    1. 0 01: MS_P3         119. 95     1. 033 No_date    29: 08    28. 76   n/a      .000
02010>                overflow <=    1. 0 03: P3- OVF         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02011>        [ MxSt ol ked=. 2183E+01   m3,  Tot Ov f ol = . 0000E+00   m3,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
02012> R0002: C00291-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02013>     ADD HYD                1. 0 02: GreenB        54717. 73    48. 599 No_date    37: 56    13. 10   n/a      .000
02014>                       +    1. 0 02: MS_P3         119. 95     1. 033 No_date    29: 08    28. 76   n/a      .000
02015>                       +    1. 0 02: P3- OVF         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02016>                       +    1. 0 02: TODD_MNj        . 00      . 000 No_date     0: 00      . 00   n/a      .000
02017>                       +    1. 0 02: A2- MI          . 00      . 000 No_date     0: 00      . 00   n/a      .000
02018>                     SUM=   1. 0 01: SN_TO        54837. 69    48. 739 No_date    37: 56    13. 13   n/a      .000
02019> R0002: C00292-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02020>     SAVE HYD               1. 0 01: SN_TO         54837. 69    48. 739 No_date    37: 56    13. 13   n/a      .000
02021>        fname : SN_TO 0002
02022>        remark: Total Flows at Todd Drain
02023> #
02024> # Hydrograph from Todd Drain routed to Corrigan Drain
02025> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
02026> # 2021-02-19 Change the slope from 0. 033 % (as per Stantec Report 2007) to 0. 05 % so the model will be more stable and g
02027> R0002: C00293-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02028>     ROUTE CHANNEL      ->      1. 0 02: SN_TO         54837. 69    48. 739 No_date    37: 56    13. 13   n/a      .000
02029> *   [ RDT= 1. 00] out <-       1. 0 01: N_TO          54837. 69    48. 720 No_date    38: 09    13. 13   n/a      .000
02030>        [ L/ S/ n=  280. /  . 050/ . 045]
02031>        [ Vmx=  . 727 Dmx= 2. 123]
02032> R0002: C00294-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02033>     SAVE HYD               1. 0 01: N_TO          54837. 69    48. 720 No_date    38: 09    13. 13   n/a      .000
02034>        fname : N_TO 0002
02035>        remark: Total inflows at Station 2462
02036> #*************************************************************************
02037> #     Catchment CORRIG
02038> #     - To Corrigan Drain (south of the Jock)
02039> #     - Primarily Developed (medium density)
02040> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
02041> #*************************************************************************
02042> R0002: C00295-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02043>     CONTINUOUS STANDHYD    1. 0 01: corr1         15. 87     1. 352 No_date    28: 02    31. 77   . 698    .000
02044>        [ XI M=  63: TI M=  63]
02045>        [ LOSS= 2 : CN= 77. 0]
02046>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
02047>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 325. : MNI=. 013: SCI=   . 0]
02048>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
02049>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
02050> R0002: C00296-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02051>     COMPUTE DUALHYD        1. 0 01: corr1         15. 87     1. 352 No_date    28: 02    31. 77   n/a      .000
02052>        Major System   /        1. 0 02: corr1- MI      . 00      . 000 No_date     0: 00      . 00   n/a      .000
02053>        Minor System   \        1. 0 03: corr1- MN     15. 87     1. 352 No_date    28: 02    31. 77   n/a      .000
02054>        [ MjSys St o=. 0000E+00,  Tot Ov f ol = . 0000E+00,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
02055> R0002: C00297-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02056>     CONTINUOUS NASHYD      1. 0 01: corr2         12. 47      . 100 No_date    29: 12    14. 83   . 326    .000
02057>        [ CN= 77. 0: N= 3. 00: Tp=  1. 10]
02058>        [ I a REC= 4. 00: SM N= 31. 15: SMX=207. 66: SK=  . 010]
02059>        [ I nter Event Time=  12. 00]
02060> R0002: C00298-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02061>     CONTINUOUS STANDHYD    1. 0 01: A1- Corrig    15. 75      . 982 No_date    28: 02    25. 60   . 563    .000
02062>        [ XI M=  42: TI M=  52]
02063>        [ LOSS= 2 : CN= 75. 0]
02064>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
02065>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 324. : MNI=. 013: SCI=   . 0]
02066>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
02067>        [ SMN= 33. 81: SMX=225. 43: SK=  . 010]
02068> R0002: C00299-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02069>     COMPUTE DUALHYD        1. 0 01: A1- Corrig    15. 75      . 982 No_date    28: 02    25. 60   n/a      .000
02070>        Major System   /        1. 0 02: A1- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02071>        Minor System   \        1. 0 03: A1- MN        15. 75      . 982 No_date    28: 02    25. 60   n/a      .000
02072>        [ MjSys St o=. 0000E+00,  Tot Ov f ol = . 0000E+00,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
02073> R0002: C00300-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02074>     CONTINUOUS NASHYD      1. 0 01: B1             2. 77      . 033 No_date    28: 09     9. 64   . 212    .000
02075>        [ CN= 56. 0: N= 3. 00: Tp=  . 23]
02076>        [ I a REC= 4. 00: SM N= 79. 69: SMX=531. 24: SK=  . 010]
02077>        [ I nter Event Time=  12. 00]
02078> R0002: C00301-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02079>     CONTINUOUS STANDHYD    1. 0 01: A4             1. 27      . 116 No_date    28: 01    32. 20   . 707    .000
02080>        [ XI M=  65: TI M=  65]
02081>        [ LOSS= 2 : CN= 75. 0]
02082>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
02083>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 253. : MNI=. 013: SCI=   . 0]
02084>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
02085>        [ SMN= 33. 81: SMX=225. 43: SK=  . 010]
02086> R0002: C00302-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02087>     COMPUTE DUALHYD        1. 0 01: A4             1. 27      . 116 No_date    28: 01    32. 20   n/a      .000
02088>        Major System   /        1. 0 02: A4- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02089>        Minor System   \        1. 0 03: A4- MN         1. 27      . 116 No_date    28: 01    32. 20   n/a      .000
02090>        [ MjSys St o=. 0000E+00,  Tot Ov f ol = . 0000E+00,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
02091> R0002: C00303-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02092>     ADD HYD                1. 0 02: A1- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02093>                       +    1. 0 02: A1- MN        15. 75      . 982 No_date    28: 02    25. 60   n/a      .000
02094>                       +    1. 0 02: corr1- MI      . 00      . 000 No_date     0: 00      . 00   n/a      .000
02095>                       +    1. 0 02: corr1- MN     15. 87     1. 352 No_date    28: 02    31. 77   n/a      .000
02096>                       +    1. 0 02: corr2         12. 47      . 100 No_date    29: 12    14. 83   n/a      .000
02097>                       +    1. 0 02: B1             2. 77      . 033 No_date    28: 09     9. 64   n/a      .000
02098>                       +    1. 0 02: A4- MN         1. 27      . 116 No_date    28: 01    32. 20   n/a      .000
02099>                     SUM=   1. 0 01: MH01          48. 13     2. 497 No_date    28: 02    24. 10   n/a      .000
02100> R0002: C00304-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02101>     SAVE HYD               1. 0 01: MH01          48. 13     2. 497 No_date    28: 02    24. 10   n/a      .000
02102>        fname : MH01. 0002
02103>        remark: Total Flows at MH01
02104> R0002: C00305-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02105>     ROUTE PIPE             ->      1. 0 02: MH01          48. 13     2. 497 No_date    28: 02    24. 10   n/a      .000
02106> *   [ RDT= 1. 00] out <-       1. 0 01: 101- 102      48. 13     2. 412 No_date    28: 03    24. 10   n/a      .000
02107>        [ L/ S/ n=  368. /  . 540/ . 013]
02108>        [ Vmx= 2. 789 Dmx=  . 935]
02109>        [ Di n= 1. 05: Used= 1. 14]
02110> R0002: C00306-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02111>     ADD HYD                1. 0 02: A2- MN        25. 50     1. 427 No_date    28: 04    25. 60   n/a      .000
02112>                       +    1. 0 02: 101- 102      48. 13     2. 412 No_date    28: 03    24. 10   n/a      .000
02113>                     SUM=   1. 0 01: MH02          73. 63     3. 837 No_date    28: 03    24. 62   n/a      .000
02114> R0002: C00307-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02115>     SAVE HYD               1. 0 01: MH02          73. 63     3. 837 No_date    28: 03    24. 62   n/a      .000
02116>        fname : MH02. 0002
02117>        remark: Total Flows at MH02
02118> R0002: C00308-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02119>     CONTINUOUS STANDHYD    1. 0 01: A5             1. 60      . 155 No_date    28: 01    34. 21   . 752    .000
02120>        [ XI M=  71: TI M=  71]
02121>        [ LOSS= 2 : CN= 75. 0]
02122>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
02123>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 300. : MNI=. 013: SCI=   . 0]
02124>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
02125>        [ SMN= 33. 81: SMX=225. 43: SK=  . 010]
02126> R0002: C00309-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02127>     ADD HYD                1. 0 02: A4- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02128>                       +    1. 0 02: A5             1. 60      . 155 No_date    28: 01    34. 21   n/a      .000
02129>                     SUM=   1. 0 01: AST            1. 60      . 155 No_date    28: 01    34. 21   n/a      .000
02130> R0002: C00310-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02131>     COMPUTE DUALHYD        1. 0 01: AST            1. 60      . 155 No_date    28: 01    34. 21   n/a      .000
02132>        Major System   /        1. 0 02: A5- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02133>        Minor System   \        1. 0 03: A5- MN         1. 60      . 155 No_date    28: 01    34. 21   n/a      .000
02134>        [ MjSys St o=. 0000E+00,  Tot Ov f ol = . 0000E+00,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
02135> R0002: C00311-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02136>     ROUTE PIPE             ->      1. 0 02: MH02          73. 63     3. 837 No_date    28: 03    24. 62   n/a      .000
02137> *   [ RDT= 1. 00] out <-       1. 0 01: 102- 103      73. 63     3. 600 No_date    28: 05    24. 62   n/a      .000
02138>        [ L/ S/ n=  504. /  . 280/ . 013]
02139>        [ Vmx= 2. 428 Dmx= 1. 243]
02140>        [ Di n= 1. 50: Used= 1. 51]
02141> R0002: C00312-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02142>     ADD HYD                1. 0 02: 102- 103      73. 63     3. 600 No_date    28: 05    24. 62   n/a      .000
02143>                       +    1. 0 02: A5- MN         1. 60      . 155 No_date    28: 01    34. 21   n/a      .000
02144>                     SUM=   1. 0 01: MH03          75. 23     3. 728 No_date    28: 05    24. 82   n/a      .000
02145> R0002: C00313-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02146>     SAVE HYD               1. 0 01: MH03          75. 23     3. 728 No_date    28: 05    24. 82   n/a      .000
02147>        fname : MH03. 0002
02148>        remark: Total Flows at MH03
02149> R0002: C00314-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02150>     ROUTE PIPE             ->      1. 0 02: MH03          75. 23     3. 728 No_date    28: 05    24. 82   n/a      .000
02151>     [ RDT= 1. 00] out <-       1. 0 01: 103- 104      75. 23     3. 629 No_date    28: 07    24. 82   n/a      .000
02152>        [ L/ S/ n=  438. /  . 460/ . 013]
02153>        [ Vmx= 3. 024 Dmx=  . 924]
02154>        [ Di n= 1. 65: Used= 1. 65]
02155> R0002: C00315-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02156>     CONTINUOUS STANDHYD    1. 0 01: A6             1. 56      . 152 No_date    28: 01    34. 21   . 752    .000
02157>        [ XI M=  71: TI M=  71]
02158>        [ LOSS= 2 : CN= 75. 0]
02159>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
02160>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 280. : MNI=. 013: SCI=   . 0]
02161>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
02162>        [ SMN= 33. 81: SMX=225. 43: SK=  . 010]
02163> R0002: C00316-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02164>     ADD HYD                1. 0 02: A5- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02165>                       +    1. 0 02: A6             1. 56      . 152 No_date    28: 01    34. 21   n/a      .000
02166>                     SUM=   1. 0 01: AST            1. 56      . 152 No_date    28: 01    34. 21   n/a      .000
02167> R0002: C00317-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02168>     COMPUTE DUALHYD        1. 0 01: AST            1. 56      . 152 No_date    28: 01    34. 21   n/a      .000
02169>        Major System   /        1. 0 02: A6- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02170>        Minor System   \        1. 0 03: A6- MN         1. 56      . 152 No_date    28: 01    34. 21   n/a      .000
02171>        [ MjSys St o=. 0000E+00,  Tot Ov f ol = . 0000E+00,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
02172> R0002: C00318-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02173>     ADD HYD                1. 0 02: A6- MN         1. 56      . 152 No_date    28: 01    34. 21   n/a      .000
02174>                       +    1. 0 02: 103- 104      75. 23     3. 629 No_date    28: 07    24. 82   n/a      .000
02175>                       +    1. 0 02: TODD_Min      30. 23     2. 154 No_date    28: 03    29. 64   n/a      .000
02176>                     SUM=   1. 0 01: MH04         107. 02     5. 765 No_date    28: 05    26. 32   n/a      .000
02177> R0002: C00319-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02178>     SAVE HYD               1. 0 01: MH04         107. 02     5. 765 No_date    28: 05    26. 32   n/a      .000
02179>        fname : MH04. 0002
02180>        remark: Total Flows at MH04
02181> R0002: C00320-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02182>     CONTINUOUS STANDHYD    1. 0 01: B2            12. 31      . 731 No_date    28: 03    25. 66   . 564    .000
02183>        [ XI M=  41: TI M=  54]
02184>        [ LOSS= 2 : CN= 75. 0]
02185>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
02186>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 417. : MNI=. 013: SCI=   . 0]
02187>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
02188>        [ SMN= 33. 81: SMX=225. 43: SK=  . 010]
02189> R0002: C00321-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02190>     COMPUTE DUALHYD        1. 0 01: B2            12. 31      . 731 No_date    28: 03    25. 66   n/a      .000
02191>        Major System   /        1. 0 02: B2- MI         . 00      . 000 No_date     0: 00      . 00   n/a      .000
02192>        Minor System   \        1. 0 03: B2- MN        12. 31      . 731 No_date    28: 03    25. 66   n/a      .000
02193>        [ MjSys St o=. 0000E+00,  Tot Ov f ol = . 0000E+00,  N- Ov f =    0,  Tot Dur Ov f =    0. hrs]
02194> R0002: C00322-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02195>     ROUTE PIPE             ->      1. 0 02: B2- MN        12. 31      . 731 No_date    28: 03    25. 66   n/a      .000
02196>     [ RDT= 1. 00] out <-       1. 0 01: 315- 333      12. 31      . 675 No_date    28: 04    25. 66   n/a      .000
02197>        [ L/ S/ n=  254. /  . 100/ . 013]
02198>        [ Vmx= 1. 136 Dmx=  . 665]
02199>        [ Di n= 1. 20: Used= 1. 20]
02200> R0002: C00323-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DWFcms
02201>     CONTINUOUS STANDHYD    1. 0 01: B3             5. 59      . 346 No_date    28: 02    25. 66   . 564    .000
02202>        [ XI M=  41: TI M=  54]
02203>        [ LOSS= 2 : CN= 75. 0]
02204>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   . 0]
02205>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 345. : MNI=. 013: SCI=   . 0]
02206>        [ I a REC mp=   4. 00: I a REC per=   4. 00]
02207>        [ SMN= 33. 81: SMX=225. 43: SK=  . 010]
02208> R0002: C00324-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C.----DW
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02245>        [ IaRECI mp=    4. 00: IaRECPer=    4. 00]
02246>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02247> R0002: C00331- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02248>      COMPUTE DUALHYD          1. 0 01: B4          7. 60        . 459 No_date   28: 02   25. 66   n/ a      . 000
02249>        Maj or Syst em    /      1. 0 02: B4- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02250>        Mi nor Syst em    \      1. 0 03: B4- MN        7. 60        . 459 No_date   28: 02   25. 66   n/ a      . 000
02251>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02252> R0002: C00332- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02253>      ADD HYD                  1. 0 02: 338- 340     17. 90        . 838 No_date   28: 08   25. 66   n/ a      . 000
02254>                          +    1. 0 02: B4- MN        7. 60        . 459 No_date   28: 02   25. 66   n/ a      . 000
02255>                          SUM=    1. 0 01: MH340     25. 50      1. 234 No_date   28: 05   25. 66   n/ a      . 000
02256> R0002: C00333- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02257>      SAVE HYD                 1. 0 01: MH340     25. 50      1. 234 No_date   28: 05   25. 66   n/ a      . 000
02258>        f name : MH340. 0002
02259>        r emar k: Total Flows at  MH340
02260> R0002: C00334- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02261>      ROUTE PI PE              - >     1. 0 02: MH340     25. 50      1. 234 No_date   28: 05   25. 66   n/ a      . 000
02262>        [ RDT= 1. 00]  out <-          1. 0 01: 340- 104     25. 50      1. 182 No_date   28: 07   25. 66   n/ a      . 000
02263>        [ Vmax= 1. 502: Dmax=  . 672]
02264>        [ Di n= 1. 65: Dused= 1. 65]
02265> R0002: C00335- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02266>      ADD HYD                  1. 0 02: 340- 104     25. 50      1. 182 No_date   28: 07   25. 66   n/ a      . 000
02267>                          +    1. 0 02: MH104     107. 02      5. 765 No_date   28: 05   26. 32   n/ a      . 000
02268>                          SUM=    1. 0 01: MH104     132. 52      6. 925 No_date   28: 05   26. 19   n/ a      . 000
02269> R0002: C00336- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02270>      ROUTE PI PE              - >     1. 0 02: MH104     132. 52      6. 925 No_date   28: 05   26. 19   n/ a      . 000
02271>        [ RDT= 1. 00]  out <-          1. 0 01: 104- 105     132. 52      6. 452 No_date   28: 06   26. 19   n/ a      . 000
02272>        [ L/ S/ n=  380. / . 100/ . 013]
02273>        [ Vmax= 1. 871: Dmax=1. 542]
02274>        [ HGTH=  2. 10: WDTH=  2. 40]
02275> R0002: C00337- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02276>      CONTI NUOUS STANDHYD     1. 0 01: B5          2. 20        . 187 No_date   28: 00   29. 51   n/ a      . 000
02277>        [ XI MP=. 57: TI MP=. 57]
02278>        [ LOSS= 2 : CN=  75. 0]
02279>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02280>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  187. : MNI =. 013: SCI =    . 0]
02281>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02282>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02283> R0002: C00338- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02284>      COMPUTE DUALHYD          1. 0 01: B5          2. 20        . 187 No_date   28: 00   29. 51   n/ a      . 000
02285>        Maj or Syst em    /      1. 0 02: B5- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02286>        Mi nor Syst em    \      1. 0 03: B5- MN        2. 20        . 187 No_date   28: 00   29. 51   n/ a      . 000
02287>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02288> R0002: C00339- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02289>      CONTI NUOUS STANDHYD     1. 0 01: A8          . 96        . 099 No_date   28: 00   34. 21   . 752     . 000
02290>        [ XI MP=. 71: TI MP=. 71]
02291>        [ LOSS= 2 : CN=  75. 0]
02292>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02293>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  186. : MNI =. 013: SCI =    . 0]
02294>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02295>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02296> R0002: C00340- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02297>      ADD HYD                  1. 0 02: A6- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02298>                          +    1. 0 02: A8          . 96        . 099 No_date   28: 00   34. 21   n/ a      . 000
02299>                          SUM=    1. 0 01: A6T         . 96        . 099 No_date   28: 00   34. 21   n/ a      . 000
02300> R0002: C00341- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02301>      COMPUTE DUALHYD          1. 0 01: A6T         . 96        . 099 No_date   28: 00   34. 21   n/ a      . 000
02302>        Maj or Syst em    /      1. 0 02: A6- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02303>        Mi nor Syst em    \      1. 0 03: A6- MN        . 96        . 099 No_date   28: 00   34. 21   n/ a      . 000
02304>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02305> R0002: C00342- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02306>      ADD HYD                  1. 0 02: B4- 105     132. 52      6. 452 No_date   28: 06   26. 19   n/ a      . 000
02307>                          +    1. 0 02: B5- MN        2. 20        . 187 No_date   28: 00   29. 51   n/ a      . 000
02308>                          +    1. 0 02: A6- MN        . 96        . 099 No_date   28: 00   34. 21   n/ a      . 000
02309>                          +    1. 0 02: TODD_MN       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02310>                          SUM=    1. 0 01: MH105     135. 68      6. 624 No_date   28: 06   26. 30   n/ a      . 000
02311> R0002: C00343- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02312>      SAVE HYD                 1. 0 01: MH105     135. 68      6. 624 No_date   28: 06   26. 30   n/ a      . 000
02313>        f name : MH105. 0002
02314>        r emar k: Total Flows at  MH105
02315> R0002: C00344- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02316> *    DI VERT HYD              - >     1. 0 01: A8- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02317>                  di verted <=    1. 0 02: A8- MI_J R    . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02318>                  di verted <=    1. 0 03: A8- MI_B6     . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02319> R0002: C00345- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02320>      DI VERT HYD              - >     1. 0 01: MH105     135. 68      6. 624 No_date   28: 06   26. 30   n/ a      . 000
02321>                  di verted <=    1. 0 02: MH105- J R    16. 59      3. 620 No_date   28: 06   26. 30   n/ a      . 000
02322>                  di verted <=    1. 0 03: MH105- B6     119. 09      3. 004 No_date   28: 06   26. 30   n/ a      . 000
02323> R0002: C00346- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02324>      CONTI NUOUS STANDHYD     1. 0 01: B7          7. 19        . 479 No_date   28: 01   25. 66   . 564     . 000
02325>        [ XI MP=. 41: TI MP=. 54]
02326>        [ LOSS= 2 : CN=  75. 0]
02327>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02328>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  211. : MNI =. 013: SCI =    . 0]
02329>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02330>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02331> R0002: C00347- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02332>      ADD HYD                  1. 0 02: B4- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02333>                          +    1. 0 02: B7          7. 19        . 479 No_date   28: 01   25. 66   n/ a      . 000
02334>                          SUM=    1. 0 01: B7- B4MI      7. 19        . 479 No_date   28: 01   25. 66   n/ a      . 000
02335> R0002: C00348- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02336>      COMPUTE DUALHYD          1. 0 01: B7- B4MI      7. 19        . 479 No_date   28: 01   25. 66   n/ a      . 000
02337>        Maj or Syst em    /      1. 0 02: B7R- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02338>        Mi nor Syst em    \      1. 0 03: B7R- MN       7. 19        . 479 No_date   28: 01   25. 66   n/ a      . 000
02339>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02340> R0002: C00349- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02341>      ROUTE PI PE              - >     1. 0 02: B7R- MN       7. 19        . 479 No_date   28: 01   25. 66   n/ a      . 000
02342>        [ RDT= 1. 00]  out <-          1. 0 01: 360- 106A     7. 19        . 451 No_date   28: 02   25. 66   n/ a      . 000
02343>        [ L/ S/ n=  167. / . 100/ . 013]
02344>        [ Vmax= 1. 023: Dmax=  . 558]
02345>        [ Di n= 1. 05: Dused= 1. 05]
02346> R0002: C00350- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02347>      CONTI NUOUS STANDHYD     1. 0 01: B6          3. 29        . 229 No_date   28: 00   25. 66   . 564     . 000
02348>        [ XI MP=. 41: TI MP=. 54]
02349>        [ LOSS= 2 : CN=  75. 0]
02350>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02351>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  148. : MNI =. 013: SCI =    . 0]
02352>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02353>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02354> R0002: C00351- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02355>      COMPUTE DUALHYD          1. 0 01: B6          3. 29        . 229 No_date   28: 00   25. 66   n/ a      . 000
02356>        Maj or Syst em    /      1. 0 02: B6- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02357>        Mi nor Syst em    \      1. 0 03: B6- MN        3. 29        . 064 No_date   27: 43   25. 67   n/ a      . 000
02358>        [ MJ SysSt o=. 1576E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02359> R0002: C00352- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02360>      CONTI NUOUS STANDHYD     1. 0 01: EX- LAND      32. 50      2. 093 No_date   28: 02   26. 85   . 590     . 000
02361>        [ XI MP=. 50: TI MP=. 50]
02362>        [ LOSS= 2 : CN=  74. 0]
02363>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02364>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  465. : MNI =. 013: SCI =    . 0]
02365>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02366>        [ SMI N= 36. 67: SMAX=244. 49: SK=  . 010]
02367> R0002: C00353- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02368>      COMPUTE DUALHYD          1. 0 01: EX- LAND      32. 50      2. 093 No_date   28: 02   26. 85   n/ a      . 000
02369>        Maj or Syst em    /      1. 0 02: EX- LAND- MI      . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02370>        Mi nor Syst em    \      1. 0 03: EX- LAND- MN      32. 50      2. 093 No_date   28: 02   26. 85   n/ a      . 000
02371>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02372> R0002: C00354- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02373>      ADD HYD                  1. 0 02: B7R- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02374>                          +    1. 0 02: EX- LAND- MI      . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02375>                          +    1. 0 02: B5- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02376>                          +    1. 0 02: B6- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02377>                          +    1. 0 02: B6- MN        3. 29        . 064 No_date   27: 43   25. 67   n/ a      . 000
02378>                          +    1. 0 02: A8- MI_B6     . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02379>                          SUM=    1. 0 01: B6- B7EXMI    3. 29        . 064 No_date   27: 43   25. 67   n/ a      . 000
02380> R0002: C00355- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02381>      COMPUTE DUALHYD          1. 0 01: B6- B7EXMI    3. 29        . 064 No_date   27: 43   25. 67   n/ a      . 000
02382>        Maj or Syst em    /      1. 0 02: B6R- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02383>        Mi nor Syst em    \      1. 0 03: B6R- MN       3. 29        . 064 No_date   27: 43   25. 67   n/ a      . 000
02384>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02385> R0002: C00356- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02386>      ROUTE PI PE              - >     1. 0 02: MH105- B6     119. 09      3. 004 No_date   28: 06   26. 30   n/ a      . 000
02387>        [ RDT= 1. 00]  out <-          1. 0 01: 105- 106A     119. 09      3. 006 No_date   28: 08   26. 30   n/ a      . 000
02388>        [ L/ S/ n=  208. / . 100/ . 013]
02389>        [ Vmax= 1. 596: Dmax= 1. 247]
02390>        [ Di n= 1. 80: Dused= 1. 80]
02391> R0002: C00357- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02392>      ADD HYD                  1. 0 02: 360- 106A     7. 19        . 451 No_date   28: 02   25. 66   n/ a      . 000
02393>                          +    1. 0 02: 105- 106A     119. 09      3. 006 No_date   28: 08   26. 30   n/ a      . 000
02394>                          +    1. 0 02: B6R- MN       3. 29        . 064 No_date   27: 43   25. 67   n/ a      . 000
02395>                          +    1. 0 02: B6R- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02396>                          SUM=    1. 0 01: MH106A    129. 57      3. 466 No_date   28: 03   26. 25   n/ a      . 000
02397> R0002: C00358- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02398>      SAVE HYD                 1. 0 01: MH106A    129. 57      3. 466 No_date   28: 03   26. 25   n/ a      . 000
02399>        f name : MH106A. 0002
02400>        r emar k: Total Flows at  MH106A
02401> R0002: C00359- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02402>      ROUTE PI PE              - >     1. 0 02: MH106A    129. 57      3. 466 No_date   28: 03   26. 25   n/ a      . 000
02403> *    [ RDT= 1. 00]  out <-          1. 0 01: 106A- 106     129. 57      3. 450 No_date   28: 04   26. 25   n/ a      . 000
02404>        [ L/ S/ n=  190. / . 100/ . 013]
02405>        [ Vmax= 1. 626: Dmax= 1. 406]
02406>        [ Di n= 1. 80: Dused= 1. 80]
02407> R0002: C00360- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02408>      CONTI NUOUS STANDHYD     1. 0 01: A9          2. 44        . 240 No_date   28: 01   34. 21   . 752     . 000
02409>        [ XI MP=. 71: TI MP=. 71]
02410>        [ LOSS= 2 : CN=  75. 0]
02411>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02412>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  262. : MNI =. 013: SCI =    . 0]
02413>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02414>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02415> R0002: C00361- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02416>      COMPUTE DUALHYD          1. 0 01: A9          2. 44        . 240 No_date   28: 01   34. 21   n/ a      . 000
02417>        Maj or Syst em    /      1. 0 02: A9- MI        . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02418>        Mi nor Syst em    \      1. 0 03: A9- MN        2. 44        . 240 No_date   28: 01   34. 21   n/ a      . 000
02419>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02420> R0002: C00362- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02421>      ADD HYD                  1. 0 02: 106A- 106     129. 57      3. 450 No_date   28: 04   26. 25   n/ a      . 000
02422>                          +    1. 0 02: A9- MN        2. 44        . 240 No_date   28: 01   34. 21   n/ a      . 000
02423>                          SUM=    1. 0 01: MH106     132. 01      3. 666 No_date   28: 03   26. 40   n/ a      . 000
02424> R0002: C00363- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02425>      SAVE HYD                 1. 0 01: MH106     132. 01      3. 666 No_date   28: 03   26. 40   n/ a      . 000
02426>        f name : MH106. 0002
02427>        r emar k: Total Flows at  MH106
02428> R0002: C00364- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02429>      ROUTE PI PE              - >     1. 0 02: MH106     132. 01      3. 666 No_date   28: 03   26. 40   n/ a      . 000
02430> *    [ RDT= 1. 00]  out <-          1. 0 01: 106- 107     132. 01      3. 602 No_date   28: 06   26. 40   n/ a      . 000
02431>        [ L/ S/ n=  123. / . 100/ . 013]
02432>        [ Vmax= 1. 631: Dmax= 1. 482]
02433>        [ Di n= 1. 80: Dused= 1. 81]
02434> R0002: C00365- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02435>      CONTI NUOUS STANDHYD     1. 0 01: A10         4. 14        . 246 No_date   28: 01   23. 49   . 516     . 000
02436>        [ XI MP=. 35: TI MP=. 47]
02437>        [ LOSS= 2 : CN=  75. 0]
02438>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02439>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
02440>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02441>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02442> R0002: C00366- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02443>      COMPUTE DUALHYD          1. 0 01: A10         4. 14        . 246 No_date   28: 01   23. 49   n/ a      . 000
02444>        Maj or Syst em    /      1. 0 02: A10- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02445>        Mi nor Syst em    \      1. 0 03: A10- MN       4. 14        . 246 No_date   28: 01   23. 49   n/ a      . 000
02446>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02447> R0002: C00367- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02448>      CONTI NUOUS STANDHYD     1. 0 01: A11         10. 61        . 781 No_date   28: 02   29. 20   . 642     . 000
02449>        [ XI MP=. 53: TI MP=. 62]
02450>        [ LOSS= 2 : CN=  75. 0]
02451>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02452>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
02453>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02454>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02455> R0002: C00368- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02456>      COMPUTE DUALHYD          1. 0 01: A11         10. 61        . 781 No_date   28: 02   29. 20   n/ a      . 000
02457>        Maj or Syst em    /      1. 0 02: A11- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02458>        Mi nor Syst em    \      1. 0 03: A11- MN       10. 61        . 781 No_date   28: 02   29. 20   n/ a      . 000
02459>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02460> R0002: C00369- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02461>      ADD HYD                  1. 0 02: 106- 107     132. 01      3. 602 No_date   28: 06   26. 40   n/ a      . 000
02462>                          +    1. 0 02: A10- MN       4. 14        . 246 No_date   28: 01   23. 49   n/ a      . 000
02463>                          +    1. 0 02: A11- MN       10. 61        . 781 No_date   28: 02   29. 20   n/ a      . 000
02464>                          SUM=    1. 0 01: MH107     146. 76      4. 589 No_date   28: 02   26. 52   n/ a      . 000
02465> R0002: C00370- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02466>      SAVE HYD                 1. 0 01: MH107     146. 76      4. 589 No_date   28: 02   26. 52   n/ a      . 000
02467>        f name : MH107. 0002
02468>        r emar k: Total Flows at  MH107
02469> R0002: C00371- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02470>      ROUTE PI PE              - >     1. 0 02: MH107     146. 76      4. 589 No_date   28: 02   26. 52   n/ a      . 000
02471> *    [ RDT= 1. 00]  out <-          1. 0 01: 107- 119     146. 76      4. 493 No_date   28: 07   26. 52   n/ a      . 000
02472>        [ L/ S/ n=  114. / . 120/ . 013]
02473>        [ Vmax= 1. 848: Dmax= 1. 558]
02474>        [ Di n= 1. 80: Dused= 1. 90]
02475> R0002: C00372- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02476>      ROUTE PI PE              - >     1. 0 02: MH107     146. 76      4. 493 No_date   28: 07   26. 52   n/ a      . 000
02477> *    [ RDT= 1. 00]  out <-          1. 0 01: 119- 108     146. 76      4. 469 No_date   28: 07   26. 52   n/ a      . 000
02478>        [ L/ S/ n=  66. / . 120/ . 013]
02479>        [ Vmax= 1. 838: Dmax= 1. 546]
02480>        [ Di n= 1. 80: Dused= 1. 88]
02481> R0002: C00373- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02482>      CONTI NUOUS STANDHYD     1. 0 01: A12         12. 29        . 834 No_date   28: 01   25. 66   . 564     . 000
02483>        [ XI MP=. 41: TI MP=. 54]
02484>        [ LOSS= 2 : CN=  75. 0]
02485>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02486>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
02487>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02488>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02489> R0002: C00374- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02490>      COMPUTE DUALHYD          1. 0 01: A12         12. 29        . 834 No_date   28: 01   25. 66   n/ a      . 000
02491>        Maj or Syst em    /      1. 0 02: A12- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02492>        Mi nor Syst em    \      1. 0 03: A12- MN       12. 29        . 834 No_date   28: 01   25. 66   n/ a      . 000
02493>        [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
02494> R0002: C00375- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02495>      CONTI NUOUS STANDHYD     1. 0 01: A13         2. 59        . 239 No_date   28: 02   34. 21   . 752     . 000
02496>        [ XI MP=. 71: TI MP=. 71]
02497>        [ LOSS= 2 : CN=  75. 0]
02498>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02499>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
02500>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02501>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02502> R0002: C00376- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02503>      COMPUTE DUALHYD          1. 0 01: A13         2. 59        . 239 No_date   28: 02   34. 21   n/ a      . 000
02504>        Maj or Syst em    /      1. 0 02: A13- MI       . 00        . 000 No_date   0: 00     . 00   n/ a      . 000
02505>        Mi nor Syst em    \      1. 0 03: A13- MN       2. 59        . 239 No_date   28: 02   34. 21   n/ a      . 000
02506> R0002: C00377- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02507>      CONTI NUOUS STANDHYD     1. 0 01: Pond- Block   2. 94        . 190 No_date   28: 01   24. 31   . 534     . 000
02508>        [ XI MP=. 41: TI MP=. 41]
02509>        [ LOSS= 2 : CN=  75. 0]
02510>        [ Per vi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
02511>        [ I mper vi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
02512>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
02513>        [ SMI N= 33. 81: SMAX=225. 43: SK=  . 010]
02514> R0002: C00378- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02515>      ADD HYD                  1. 0 02: 119- 108     146. 76      4. 469 No_date   28: 07   26. 52   n/ a      . 000
02516>                          +    1. 0 02: A13- MN       2. 59        . 239 No_date   28: 02   34. 21   n/ a      . 000
02517>                          +    1. 0 02: A12- MN       12. 29        . 834 No_date   28: 01   25. 66   n/ a      . 000
02518>                          SUM=    1. 0 01: MH108     161. 64      5. 450 No_date   28: 03   26. 58   n/ a      . 000
02519> R0002: C00379- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02520>      SAVE HYD                 1. 0 01: MH108     161. 64      5. 450 No_date   28: 03   26. 58   n/ a      . 000
02521>        f name : MH108. 0002
02522>        r emar k: Total Flows at  MH108
02523> R0002: C00380- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02524>      ROUTE PI PE              - >     1. 0 02: MH108     161. 64      5. 450 No_date   28: 03   26. 58   n/ a      . 000
02525> *    [ RDT= 1. 00]  out <-          1. 0 01: 108- 116     161. 64      5. 396 No_date   28: 04   26. 58   n/ a      . 000
02526>        [ L/ S/ n=  77. / . 130/ . 013]
02527>        [ Vmax= 1. 987: Dmax= 1. 637]
02528>        [ Di n= 1. 80: Dused= 1. 99]
02529> R0002: C00381- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02530>      ROUTE PI PE              - >     1. 0 02: 108- 116     161. 64      5. 396 No_date   28: 04   26. 58   n/ a      . 000
02531> *    [ RDT= 1. 00]  out <-          1. 0 01: 116- corrig   161. 64      5. 363 No_date   28: 04   26. 58   n/ a      . 000
02532>        [ L/ S/ n=  80. / . 130/ . 013]
02533>        [ Vmax= 1. 983: Dmax= 1. 631]
02534>        [ Di n= 1. 80: Dused= 1. 99]
02535> R0002: C00382- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
02536>      ADD HYD                  1. 0 02: 116- corrig   161. 64      5. 363 No_date   28: 04   26. 58   n/ a      . 000
02537>                          +    1. 0 02: Pond- Block   2. 94        . 190 No_date   28: 01   24. 31   n/ a      . 000
02538>                          SUM=    1. 0 01: Corrigan      164. 58      5. 522 No_date   28: 04   26. 54   n/ a      . 000
02539> R0002: C00
```

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02619> #     Catchment DESIRE
02620> #     - To Jock River (north of the Jock)
02621> #     - Rural-estate subdivision (Heart's Desire Community)
02622> #**************************************************************************
02623> R0002: C00393-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02624>       CONTINUOUS STANDHYD      1.0 01: DESIRE          23.78       .936 No_date   28:03   19.26 .423      .000
02625>        [ XIMP=.25: TIMP=.25]
02626>        [ LOSS= 2 : CN= 77.0]
02627>        [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
02628>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=    .0]
02629>        [ IaREC mp=   4. 00: IaRECper=   4. 00]
02630>        [ SMX= 31. 15:  SMX=207. 66:  SK= . 010]
02631> #**************************************************************************
02632> #     Catchment JOCKVA
02633> #     - To Jockvale SWM Facility
02634> #     - Residential development & golf course
02635> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
02636> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
02637> #**************************************************************************
02638> R0002: C00394-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02639>       CONTINUOUS STANDHYD      1.0 01: JOCKVA          225.13     10.636 No_date   28:10   26.85 .590      .000
02640>        [ XIMP=. 50: TIMP=. 50]
02641>        [ LOSS= 2 : CN= 74.0]
02642>        [ Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
02643>        [ Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=    .0]
02644>        [ IaREC mp=   4. 00: IaRECper=   4. 00]
02645>        [ SMX= 36. 67:  SMX=244. 49:  SK= . 010]
02646> R0002: C00395-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02647>       ADD HYD                 1.0 02: EX-LAND MN       32.50       2.093 No_date   28:02   26.85  n/a      .000
02648>                          +    1.0 02: JOCKVA          225.13     10.636 No_date   28:10   26.85  n/a      .000
02649>                          +    1.0 02: B2-MI             .00        .000 No_date    0:00     .00  n/a      .000
02650>                          +    1.0 02: B3-MI             .00        .000 No_date    0:00     .00  n/a      .000
02651>                     SUM=      1.0 01: JOCKVA-TO       257.63     12.234 No_date   28:07   26.85  n/a      .000
02652> R0002: C00396-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02653>       SAVE HYD                1.0 01: JOCKVA-TO       257.63     12.234 No_date   28:07   26.85  n/a      .000
02654>        fname : JOCKVA-TO. 0002
02655>        remark: Total Flows at KB first pond
02656> #**************************************************************************
02657> #     Jockvale SWM Facility
02658> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
02659> #**************************************************************************
02660> R0002: C00397-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02661>       ROUTE RESERVOIR -->     1.0 02: JOCKVA-TO       257.63     12.234 No_date   28:07   26.85  n/a      .000
02662>                        out <=   1.0 01: JOCK_P         257.63      2.560 No_date   29:05   26.85  n/a      .000
02663>                 overflow <=     1.0 03: JO-OVF            .00        .000 No_date    0:00     .00  n/a      .000
02664>        [ MxStoRed=. 3334E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  % Ovf =     0,  Tot Dur Ovf =     0. hrs]
02665> R0002: C00398-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02666>       ADD HYD                 1.0 02: N_DE            55194.85     49.114 No_date   38:33   13.21  n/a      .000
02667>                          +    1.0 02: DESIRE           23.78       .936 No_date   28:03   19.26  n/a      .000
02668>                          +    1.0 02: JO-OVF            .00        .000 No_date    0:00     .00  n/a      .000
02669>                          +    1.0 02: JOCK_P          257.63      2.560 No_date   29:05   26.85  n/a      .000
02670>                     SUM=      1.0 01: SN_DE           55476.26     49.482 No_date   38:27   13.27  n/a      .000
02671> R0002: C00399-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02672>       SAVE HYD                1.0 01: SN_DE           55476.26     49.482 No_date   38:27   13.27  n/a      .000
02673>        fname : SN_DE. 0002
02674>        remark: Total Flows at Heart's Desire
02675> #
02676> # Hydrograph from Heart's Desire routed to Rideau River
02677> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
02678> #
02679> R0002: C00400-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02680>       ROUTE CHANNEL   -->     1.0 02: SN_DE           55476.26     49.482 No_date   38:27   13.27  n/a      .000
02681>        [ RDT=  1. 00]  out <-     1.0 01: SN              55476.26     49.480 No_date   38:33   13.27  n/a      .000
02682>        [ LI S/ n=  563. /  . 967/ . 045]
02683>        [ Vmax=  1. 489: Dmax=   . 800]
02684> #**************************************************************************
02685> #     Catchment S-2
02686> #     - To Jock River (north and south)
02687> #     - Undeveloped floodplain and river
02688> #**************************************************************************
02689> R0002: C00401-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02690>       CONTINUOUS NASHYD        1.0 01: S-2             102.94      1.373 No_date   28:20   13.01 .286      .000
02691>        [ CN= 72. 0:  N= 3. 00:  Tp=   . 40]
02692>        [ IaREC= 4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
02693>        [ InterEventTime=  12. 00]
02694> R0002: C00402-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02695>       ADD HYD                 1.0 02: N1              55476.26     49.480 No_date   38:33   13.27  n/a      .000
02696>                          +    1.0 02: S-2             102.94      1.373 No_date   28:20   13.01  n/a      .000
02697>                     SUM=      1.0 01: SN_NI           55579.20     49.578 No_date   38:33   13.27  n/a      .000
02698> R0002: C00403-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02699>       SAVE HYD                1.0 01: SN_NI           55579.20     49.578 No_date   38:33   13.27  n/a      .000
02700>        fname : SN_NI. 0002
02701>        remark: Total Flows at Rideau River
02702> ##########################################################################
02703>   ** END OF RUN :     4
02704>
02705> ************************************************************************************************************
02706>
02707>
02708>
02709>
02710>
02711>  RUN#: COMMAND#
02712> R0005: C00001-------------------------------------------------------------------------------------------------
02713>       START
02714>        [ TZERO =      . 00 hrs on          0]
02715>        [ METOUT=    2     (1=imperial, 2=metric output)]
02716>        [ NSTORM=    1 ]
02717>        [ NRUN   = 0005 ]
02718> #**************************************************************************
02719> #  SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
02720> #**************************************************************************
02721> #  Project Name: [Jock River]      Project Number: [1474-16]
02722> #  Date        : 04-03-2021
02723> #  Modeller    : [M M]
02724> #  Company     : JFSAi nc.
02725> #  License #   : 2549237
02726> #**************************************************************************
02727> # CALIBRATION OF SUMMER MODEL PARAMETERS
02728> # USING CONTINUOUS SIMULATIONS
02729> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
02730> # Use data collected from May 1st to July 14, 2003
02731> # 2020-11-30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0.1 instead of 0.0001)
02732> # 2020-12-01 correct pond curve values
02733> # 2020-12-01 change W_CLAR_BRAZ XIMP to 0.55, SLPI=[0.5]( %) (impervious slope), and LGI up to 700m
02734> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TOT"], NHYDin=["SN_TOT"]) from 0.033 %(as per S
02735> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
02736> # ---------------------------------------------------------------------------
02737> R0005: C00002-------------------------------------------------------------------------------------------------
02738>       READ STORM
02739>        Filename = storm 001
02740>        Comment  = Pluie SCS de 24 hres 1:5 ans pour Ottawa CDA
02741>        [ SDT=10. 00: SDUR=   24. 00: PTOT=   57. 12]
02742> R0005: C00003-------------------------------------------------------------------------------------------------
02743>       MODIFY STORM
02744>        [ REACT=   1. 00: TSHIFT= 960. 00  min]
02745>        [ SDT=10. 00: SDUR=   40. 00: PTOT=   57. 12]
02746> R0005: C00004-------------------------------------------------------------------------------------------------
02747>       DEFAULT VALUES
02748>        Filename = T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO\SMR-Model\updated3\CityGate. DEF
02749>        ICASEfdv   = 1 (read and print data)
02750>        FileTitle= File comment: [Based onvarious calibration exercises in Onta
02751>                   THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
02752>        Horton's infiltration equation parameters:
02753>        [ Fo= 76. 20  mm/hr]  [ Fc=13. 20  mm/hr]  [ DCAY=  4. 14 /hr]  [ F=   . 00  mm]
02754>        Parameters for PERVIOUS surfaces in STANDHYD:
02755>        [ IAper=    4. 67  mm]  [ LGP=50. 00  m]  [ MNP=  . 250]
02756>        Parameters for IMPERVIOUS surfaces in STANDHYD:
02757>        [ IAimp=    1. 57  mm]  [ CLI=  1. 50]    [ MNI=  . 013]
02758>        Parameters used in NASHYD:
02759>        [ Ia=     4. 67  mm]  [ N=  3. 00]
02760>        Average monthly Pan Evaporation data in     (mm)
02761>     JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
02762>    . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
02763>        Average monthly Potential Evapotranspiration in     (mm)
02764>     JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
02765>    . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
02766> R0005: C00005-------------------------------------------------------------------------------------------------
02767>       COMPUTE API
02768>        [ APIini=  50. 00:  APIkdy=  . 8500:  APIkdt=  . 9989]
02769>        [ APImax=  90. 83:  APIavg=  60. 09:  APImin=  44. 87]
02770> #
02771> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02772> # of 1. 32
02773> R0005: C00006-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02774>       CONTINUOUS NASHYD        1.0 01: JR_HW           3680.00      9.398 No_date   37:02   16.41 .287      .000
02775>        [ CN= 64. 0:  N= 3. 00:  Tp=  7. 13]
02776>        [ IaREC= 4. 00:  SMN=  57. 05:  SMX=380. 32:  SK=  . 010]
02777>        [ InterEventTime=  12. 00]
02778> #
02779> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02780> # of 1. 32
02781> R0005: C00007-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02782>       CONTINUOUS NASHYD        1.0 01: SW_13           971.00      3.405 No_date   32:36   15.29 .268      .000
02783>        [ CN= 61. 0:  N= 3. 00:  Tp=  3. 76]
02784>        [ IaREC= 4. 00:  SMN=  64. 50:  SMX=430. 01:  SK=  . 010]
02785>        [ InterEventTime=  12. 00]
02786> #
02787> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02788> # of 1. 80
02789> R0005: C00008-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02790>       CONTINUOUS NASHYD        1.0 02: JR_GWM          3074.00      4.682 No_date   39:59   13.23 .232      .000
02791>        [ CN= 55. 0:  N= 3. 00:  Tp=11. 33]
02792>        [ IaREC= 4. 00:  SMN=  83. 24:  SMX=554. 96:  SK=  . 010]
02793>        [ InterEventTime=  12. 00]
02794> R0005: C00009-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02795>       CONTINUOUS NASHYD        1.0 01: JR_ASH          1781.00      8.521 No_date   32:43   20.12 .352      .000
02796>        [ CN= 72. 0:  N= 3. 00:  Tp=  3. 91]
02797>        [ IaREC= 4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
02798>        [ InterEventTime=  12. 00]
02799> R0005: C00010-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02800>       CONTINUOUS NASHYD        1.0 01: SW_11           500.00      4.354 No_date   29:22   17.18 .301      .000
02801>        [ CN= 66. 0:  N= 3. 00:  Tp=  1. 24]
02802>        [ IaREC= 4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
02803>        [ InterEventTime=  12. 00]
02804> #
02805> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02806> # of 1. 80
02807> R0005: C00011-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02808>       CONTINUOUS NASHYD        1.0 01: NN_CK           1917.00      6.210 No_date   34:31   17.18 .301      .000
02809>        [ CN= 66. 0:  N= 3. 00:  Tp=  5. 29]
02810>        [ IaREC= 4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
02811>        [ InterEventTime=  12. 00]
02812> #
02813> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02814> # of 1. 52
02815> R0005: C00012-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02816>       CONTINUOUS NASHYD        1.0 01: SW_10           5666.00     16.924 No_date   38:02   20.12 .352      .000
02817>        [ CN= 72. 0:  N= 3. 00:  Tp=  3. 00]
02818>        [ IaREC= 4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
02819>        [ InterEventTime=  12. 00]
02820> #
02821> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02822> # of 1. 75
02823> R0005: C00013-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02824>       CONTINUOUS NASHYD        1.0 01: KG_CK           8376.00     16.342 No_date   39:59   17.18 .301      .000
02825>        [ CN= 66. 0:  N= 3. 00:  Tp=11. 66]
02826>        [ IaREC= 4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
02827>        [ InterEventTime=  12. 00]
02828> #
02829> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02830> # of 1. 68
02831> R0005: C00014-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02832>       CONTINUOUS NASHYD        1.0 01: SW_9            1132.00      6.963 No_date   30:55   19.24 .337      .000
02833>        [ CN= 70. 0:  N= 3. 00:  Tp=  2. 51]
02834>        [ IaREC= 4. 00:  SMN=  43. 07:  SMX=287. 10:  SK=  . 010]
02835>        [ InterEventTime=  12. 00]
02836> #
02837> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02838> # of 1. 82
02839> R0005: C00015-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02840>       CONTINUOUS NASHYD        1.0 01: NC_CK           4464.00      8.109 No_date   39:59   15.66 .274      .000
02841>        [ CN= 62. 0:  N= 3. 00:  Tp=11. 32]
02842>        [ IaREC= 4. 00:  SMN=  61. 90:  SMX=412. 66:  SK=  . 010]
02843>        [ InterEventTime=  12. 00]
02844> #
02845> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02846> # of 1. 80
02847> R0005: C00016-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02848>       CONTINUOUS NASHYD        1.0 01: SW_8            131.00      1.298 No_date   28:57   16.03 .281      .000
02849>        [ CN= 63. 0:  N= 3. 00:  Tp=   . 90]
02850>        [ IaREC= 4. 00:  SMN=  59. 42:  SMX=396. 11:  SK=  . 010]
02851>        [ InterEventTime=  12. 00]
02852> #
02853> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02854> # of 1. 65
02855> R0005: C00017-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02856>       CONTINUOUS NASHYD        1.0 01: HB_DR           3854.00      9.385 No_date   38:41   17.18 .301      .000
02857>        [ CN= 66. 0:  N= 3. 00:  Tp=  8. 42]
02858>        [ IaREC= 4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
02859>        [ InterEventTime=  12. 00]
02860> #
02861> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02862> # of 1. 82
02863> R0005: C00018-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02864>       CONTINUOUS NASHYD        1.0 01: SW_7            3197.00      7.027 No_date   36:28   13.89 .243      .000
02865>        [ CN= 57. 0:  N= 3. 00:  Tp=  6. 65]
02866>        [ IaREC= 4. 00:  SMN=  76. 32:  SMX=508. 81:  SK=  . 010]
02867>        [ InterEventTime=  12. 00]
02868> #
02869> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02870> # of 1. 75
02871> R0005: C00019-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02872>       CONTINUOUS NASHYD        1.0 01: SW_6            165.00       .641 No_date   33:06   17.58 .308      .000
02873>        [ CN= 67. 0:  N= 3. 00:  Tp=  4. 18]
02874>        [ IaREC= 4. 00:  SMN=  50. 55:  SMX=336. 97:  SK=  . 010]
02875>        [ InterEventTime=  12. 00]
02876> #
02877> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02878> # of 1. 67
02879> R0005: C00020-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02880>       CONTINUOUS NASHYD        1.0 01: VG_DR           1332.00      4.803 No_date   35:19   20.12 .352      .000
02881>        [ CN= 72. 0:  N= 3. 00:  Tp=  5. 95]
02882>        [ IaREC= 4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
02883>        [ InterEventTime=  12. 00]
02884> R0005: C00021-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02885>       CONTINUOUS NASHYD        1.0 01: SW_5            224.00      4.100 No_date   28:45   22.97 .402      .000
02886>        [ CN= 77. 0:  N= 3. 00:  Tp=   . 75]
02887>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
02888>        [ InterEventTime=  12. 00]
02889> #
02890> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02891> # of 1. 20
02892> R0005: C00022-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02893>       CONTINUOUS NASHYD        1.0 01: FL_CK           4945.00     22.837 No_date   33:22   21.04 .368      .000
02894>        [ CN= 74. 0:  N= 3. 00:  Tp=  4. 45]
02895>        [ IaREC= 4. 00:  SMN=  36. 67:  SMX=244. 49:  SK=  . 010]
02896>        [ InterEventTime=  12. 00]
02897> R0005: C00023-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02898>       CONTINUOUS NASHYD        1.0 01: SW_5A2            20.00       .483 No_date   28:36   25.62 .448      .000
02899>        [ CN= 81. 0:  N= 3. 00:  Tp=   . 62]
02900>        [ IaREC= 4. 00:  SMN=  25. 21:  SMX=168. 09:  SK=  . 010]
02901>        [ InterEventTime=  12. 00]
02902> #
02903> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02904> # of 1. 61
02905> R0005: C00024-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02906>       CONTINUOUS NASHYD        1.0 01: SW_5A1          1412.00      4.646 No_date   37:58   21.98 .385      .000
02907>        [ CN= 75. 0:  N= 3. 00:  Tp=  8. 00]
02908>        [ IaREC= 4. 00:  SMN=  33. 81:  SMX=225. 43:  SK=  . 010]
02909>        [ InterEventTime=  12. 00]
02910> R0005: C00025-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02911>       CONTINUOUS NASHYD        1.0 01: SW_4            585.00      6.688 No_date   29:57   25.62 .448      .000
02912>        [ CN= 81. 0:  N= 3. 00:  Tp=  1. 75]
02913>        [ IaREC= 4. 00:  SMN=  25. 21:  SMX=168. 09:  SK=  . 010]
02914>        [ InterEventTime=  12. 00]
02915> R0005: C00026-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02916>       CONTINUOUS NASHYD        1.0 01: LM_CK           1021.00      8.861 No_date   30:48   25.07 .439      .000
02917>        [ CN= 80. 0:  N= 3. 00:  Tp=  2. 46]
02918>        [ IaREC= 4. 00:  SMN=  26. 32:  SMX=175. 50:  SK=  . 010]
02919>        [ InterEventTime=  12. 00]
02920> R0005: C00027-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02921>       CONTINUOUS NASHYD        1.0 01: SW_2            177.00      3.240 No_date   28:45   22.97 .402      .000
02922>        [ CN= 77. 0:  N= 3. 00:  Tp=   . 75]
02923>        [ IaREC= 4. 00:  SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
02924>        [ InterEventTime=  12. 00]
02925> R0005: C00028-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02926>       CONTINUOUS NASHYD        1.0 01: SM_DR           1122.00      8.165 No_date   31:48   25.62 .448      .000
02927>        [ CN= 81. 0:  N= 3. 00:  Tp=  3. 25]
02928>        [ IaREC= 4. 00:  SMN=  25. 21:  SMX=168. 09:  SK=  . 010]
02929>        [ InterEventTime=  12. 00]
02930> R0005: C00029-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02931>       CONTINUOUS NASHYD        1.0 01: MD_DR           2737.00     17.859 No_date   31:33   22.47 .393      .000
02932>        [ CN= 76. 0:  N= 3. 00:  Tp=  3. 03]
02933>        [ IaREC= 4. 00:  SMN=  32. 46:  SMX=216. 39:  SK=  . 010]
02934>        [ InterEventTime=  12. 00]
02935> #
02936> # Routing hydrographs
02937> #
02938> # Starting with the addition of Jock River Headwater and Subwatershed 13
02939> #
02940> R0005: C00030-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02941>       ADD HYD                 1.0 02: JR_HW           3680.00      9.398 No_date   37:02   16.41  n/a      .000
02942>                          +    1.0 02: SW_13           971.00      3.405 No_date   32:36   15.29  n/a      .000
02943>                     SUM=      1.0 01: S_N13           4651.00     11.949 No_date   35:33   16.17  n/a      .000
02944> #
02945> # Sum of hydrographs from Node 13 routed to Node 13A
02946> # (Approximated cross-section - see cross-section 258)
02947> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02948> #
02949> R0005: C00031-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02950>       ROUTE CHANNEL   -->     1.0 02: S_N13           4651.00     11.949 No_date   35:33   16.17  n/a      .000
02951>        [ RDT=  1. 00]  out <-     1.0 01: N13A            4651.00      9.514 No_date   39:57   16.17  n/a      .000
02952>        [ LI S/ n=  9074. /  . 022/ . 040]
02953>        [ Vmax=   . 478: Dmax=  3. 020]
02954> #
02955> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
02956> #
02957> R0005: C00032-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02958>       ADD HYD                 1.0 02: N13A            4651.00      9.514 No_date   39:57   16.17  n/a      .000
02959>                          +    1.0 02: JR_GWM          3074.00      4.682 No_date   39:59   13.23  n/a      .000
02960>                     SUM=      1.0 01: SN13A           7725.00     14.196 No_date   39:59   15.00  n/a      .000
02961> #
02962> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
02963> #
02964> R0005: C00033-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02965>       ROUTE RESERVOIR -->     1.0 01: SN13A           7725.00     14.196 No_date   39:59   15.00  n/a      .000
02966>                        out <=   1.0 01: RES_GM          7725.00      3.149 No_date   57:25   15.00  n/a      .000
02967>        [ MxStoRed=. 6321E+02   m3]
02968> #
02969> R0005: C00034-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02970>       SAVE HYD                1.0 01: RES_GM          7725.00      3.149 No_date   57:25   15.00  n/a      .000
02971>        fname : H_RESGM
02972>        remark: Outflow from Res GM
02973> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
02974> # (Approximated cross-section - see cross-section 258)
02975> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02976> R0005: C00035-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02977>       ROUTE CHANNEL   -->     1.0 02: RES_GM          7725.00      3.149 No_date   57:25   15.00  n/a      .000
02978>        [ RDT=  1. 00]  out <-     1.0 01: N12             7725.00      3.137 No_date   60:12   15.00  n/a      .000
02979>        [ LI S/ n=  5926. /  . 076/ . 040]
02980>        [ Vmax=   . 527: Dmax=  1. 429]
02981> #
02982> # Addition of Subwatershed Jock River at Ashton to Node 12
02983> #
02984> R0005: C00036-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02985>       ADD HYD                 1.0 02: N12             7725.00      3.137 No_date   60:12   15.00  n/a      .000
02986>                          +    1.0 02: JR_ASH          1781.00      8.521 No_date   32:43   20.12  n/a      .000
02987>                     SUM=      1.0 01: S_N12           9506.00     10.498 No_date   32:46   15.96  n/a      .000
02988> R0005: C00037-------------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
02989>       SAVE HYD                1.0 01: S_N12           9506.00     10.498 No_date   32:46   15.96  n/a      .000
02990>        fname : H_SN12
02991>        remark: flow at S_N12 near Ashton
02992> #
```

```
02993> # Sum of hydrographs from Node 12 routed to Node 11
02994> # (Approximated cross-section - see cross-section 258)
02995> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
02996> #
02997> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
02998> #
02999> R0005: C00038------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03000>       ROUTE CHANNEL   ->      1. 0 02: S_N12          9506. 00    10. 498 No_date   32: 46   15. 96   n/a      .000
03001>         [RDT= 1. 00] out<-      1. 0 01: Dam1I        9506. 00    10. 383 No_date   33: 07   15. 96   n/a      .000
03002>         [L/ S/ n=  972. / . 054/ . 040]
03003>         [Vmx=  . 648: Dmx= 2. 406]
03004> #
03005> # Addition of Subwatershed 11 and No Name Creek to Node 11
03006> #
03007> R0005: C00039------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03008>       ADD HYD                 1. 0 02: Dam1I        9506. 00    10. 383 No_date   33: 07   15. 96   n/a      .000
03009>                           +     1. 0 02: SW_11         500. 00     4. 354 No_date   29: 22   17. 18   n/a      .000
03010>                           +     1. 0 02: NN_CK        1917. 00     6. 210 No_date   34: 31   17. 18   n/a      .000
03011>                         SUM=    1. 0 01: S_N11       11923. 00    17. 560 No_date   33: 09   16. 21   n/a      .000
03012> #
03013> # Sum of hydrographs from Node 11 routed to Node 10
03014> # Section 1
03015> #
03016> R0005: C00040------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03017>       ROUTE CHANNEL   ->      1. 0 02: S_N11        11923. 00    17. 560 No_date   33: 09   16. 21   n/a      .000
03018>         [RDT= 1. 00] out<-      1. 0 01: N10          11923. 00    12. 006 No_date   38: 17   16. 21   n/a      .000
03019>         [L/ S/ n=14028. / . 157/ . 040]
03020>         [Vmx=  . 461: Dmx= 1. 087]
03021> #
03022> # Addition of Subwatershed 10 to Node 10
03023> #
03024> R0005: C00041------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03025>       ADD HYD                 1. 0 02: N10          11923. 00    12. 006 No_date   38: 17   16. 21   n/a      .000
03026>                           +     1. 0 02: SW_10         5666. 00    16. 924 No_date   38: 02   20. 12   n/a      .000
03027>                         SUM=    1. 0 01: S_N10       17589. 00    28. 927 No_date   38: 09   17. 47   n/a      .000
03028> R0005: C00042------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03029>       SAVE HYD                1. 0 01: S_N10        17589. 00    28. 927 No_date   38: 09   17. 47   n/a      .000
03030>         fname : H_SN10
03031>         remark: flow at S_N10:  N10 + SW_10
03032> # Addition of Kings Creek to S_N10
03033> #
03034> R0005: C00043------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03035>       ADD HYD                 1. 0 02: S_N10        17589. 00    28. 927 No_date   38: 09   17. 47   n/a      .000
03036>                           +     1. 0 02: KG_CK         8376. 00    16. 342 No_date   39: 59   17. 18   n/a      .000
03037>                         SUM=    1. 0 01: S_N10A      25965. 00    44. 722 No_date   39: 35   17. 37   n/a      .000
03038> #
03039> # Sum of hydrographs from Node 10 routed to Node 9
03040> # Section 2
03041> #
03042> R0005: C00044------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03043>       ROUTE CHANNEL   ->      1. 0 02: S_N10A       25965. 00    44. 722 No_date   39: 35   17. 37   n/a      .000
03044>         [RDT= 1. 00] out<-      1. 0 01: N9           25965. 00    43. 534 No_date   39: 59   17. 37   n/a      .000
03045>         [L/ S/ n= 3982. / . 075/ . 040]
03046>         [Vmx=  . 664: Dmx= 1. 502]
03047> #
03048> # Addition of Subwatershed 9 and Nichols Creek to Node 9
03049> #
03050> R0005: C00045------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03051>       ADD HYD                 1. 0 02: N9           25965. 00    43. 534 No_date   39: 59   17. 37   n/a      .000
03052>                           +     1. 0 02: SW_9          1132. 00     6. 963 No_date   40: 55   19. 24   n/a      .000
03053>                           +     1. 0 02: NC_CK         4464. 00     8. 109 No_date   39: 59   15. 66   n/a      .000
03054>                         SUM=    1. 0 01: S_N9        31561. 00    53. 366 No_date   39: 59   17. 20   n/a      .000
03055> #
03056> # Sum of hydrographs from Node 9 routed to Node 8
03057> # Section 3
03058> #
03059> R0005: C00046------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03060>       ROUTE CHANNEL   ->      1. 0 02: S_N9         31561. 00    53. 366 No_date   39: 59   17. 20   n/a      .000
03061>         [RDT= 1. 00] out<-      1. 0 01: N8           31561. 00    49. 404 No_date   39: 59   17. 20   n/a      .000
03062>         [L/ S/ n= 2269. / . 088/ . 045]
03063>         [Vmx=  . 370: Dmx= 1. 520]
03064> #
03065> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
03066> #
03067> R0005: C00047------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03068>       ADD HYD                 1. 0 02: N8           31561. 00    49. 404 No_date   39: 59   17. 20   n/a      .000
03069>                           +     1. 0 02: SW_8          131. 00     1. 298 No_date   28: 57   16. 03   n/a      .000
03070>                           +     1. 0 02: HB_DR         3854. 00     9. 385 No_date   38: 41   17. 18   n/a      .000
03071>                         SUM=    1. 0 01: S_N8        35546. 00    58. 845 No_date   39: 59   17. 19   n/a      .000
03072> #
03073> # Sum of hydrographs from Node 8 routed to Node 7
03074> # Section 4
03075> #
03076> R0005: C00048------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03077>       ROUTE CHANNEL   ->      1. 0 02: S_N8         35546. 00    58. 845 No_date   39: 59   17. 19   n/a      .000
03078>         [RDT= 1. 00] out<-      1. 0 01: N7           35546. 00    48. 127 No_date   45: 08   17. 19   n/a      .000
03079>         [L/ S/ n= 3750. / . 053/ . 070]
03080>         [Vmx=  . 208: Dmx= 1. 855]
03081> #
03082> # Addition of Subwatershed 7 to Node 7
03083> #
03084> R0005: C00049------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03085>       ADD HYD                 1. 0 02: N7           35546. 00    48. 127 No_date   45: 08   17. 19   n/a      .000
03086>                           +     1. 0 02: SW_7          3197. 00     7. 027 No_date   36: 28   13. 89   n/a      .000
03087>                         SUM=    1. 0 01: S_N7        38743. 00    51. 395 No_date   44: 14   16. 92   n/a      .000
03088> R0005: C00050------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03089>       SAVE HYD                1. 0 01: S_N7         38743. 00    51. 395 No_date   44: 14   16. 92   n/a      .000
03090>         fname : H_SN7
03091>         remark: flow at S_N7:  N7 + SW_7
03092> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
03093> # Storage area and volumes were estimated from available topo maps.
03094> # Release rate from fen was assumed to be controlled by the downstream
03095> # river cross-section for summer conditions.  It is was assumed that for up to
03096> # 0.75 m of water, the main channel of the river provided the storage.  Above
03097> # this depth, the wetland starts to significantly store water.
03098> #
03099> R0005: C00051------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03100>       ROUTE RESERVOIR ->      1. 0 02: S_N7         38743. 00    51. 395 No_date   44: 14   16. 92   n/a      .000
03101>                         out <=    1. 0 01: RES_RF       38743. 00    27. 976 No_date   59: 12   16. 92   n/a      .000
03102>         [MxSt oXed= 1. 784E+03  m3]
03103> R0005: C00052------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03104>       SAVE HYD                1. 0 01: RES_RF       38743. 00    27. 976 No_date   59: 12   16. 92   n/a      .000
03105>         fname : H_ResRF
03106>         remark: outflow of Richmond Fen
03107> #
03108> # Sum of hydrographs from Node 7 routed to Node 6
03109> # Section 5
03110> #
03111> R0005: C00053------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03112>       ROUTE CHANNEL   ->      1. 0 02: RES_RF       38743. 00    27. 976 No_date   59: 12   16. 92   n/a      .000
03113>         [RDT= 1. 00] out<-      1. 0 01: N6           38743. 00    27. 930 No_date   60: 29   16. 92   n/a      .000
03114>         [L/ S/ n= 3056. / . 082/ . 025]
03115>         [Vmx=  . 460: Dmx=  . 895]
03116> #
03117> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
03118> #
03119> R0005: C00054------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03120>       ADD HYD                 1. 0 02: N6           38743. 00    27. 930 No_date   60: 29   16. 92   n/a      .000
03121>                           +     1. 0 02: SW_6          165. 00      . 641 No_date   33: 06   17. 58   n/a      .000
03122>                           +     1. 0 02: VG_DR         1332. 00     4. 803 No_date   35: 19   20. 12   n/a      .000
03123>                         SUM=    1. 0 01: S_N6        40240. 01    27. 944 No_date   60: 06   17. 03   n/a      .000
03124> #
03125> # Sum of hydrographs from Node 6 routed to Node 5
03126> # Section 6
03127> #
03128> R0005: C00055------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03129>       ROUTE CHANNEL   ->      1. 0 02: S_N6         40240. 01    27. 944 No_date   60: 06   17. 03   n/a      .000
03130>         [RDT= 1. 00] out<-      1. 0 01: N5           40240. 01    27. 922 No_date   60: 57   17. 03   n/a      .000
03131>         [L/ S/ n= 1852. / . 054/ . 035]
03132>         [Vmx=  . 397: Dmx= 1. 002]
03133> #
03134> # Addition of Subwatershed 5 and Flowing Creek to Node 5
03135> #
03136> R0005: C00056------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03137>       ADD HYD                 1. 0 02: N5           40240. 01    27. 922 No_date   60: 57   17. 03   n/a      .000
03138>                           +     1. 0 02: SW_5          224. 00     4. 100 No_date   28: 45   22. 97   n/a      .000
03139>                           +     1. 0 02: FL_CK         4945. 00    22. 837 No_date   33: 22   21. 04   n/a      .000
03140>                         SUM=    1. 0 01: S_N5        45409. 01    43. 566 No_date   35: 28   17. 49   n/a      .000
03141> #
03142> # Sum of hydrographs from Node 5 routed to Node 5A
03143> # Section 7
03144> #
03145> R0005: C00057------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03146>       ROUTE CHANNEL   ->      1. 0 02: S_N5         45409. 01    43. 566 No_date   35: 28   17. 49   n/a      .000
03147>         [RDT= 1. 00] out<-      1. 0 01: N5A          45409. 01    43. 490 No_date   35: 47   17. 49   n/a      .000
03148>         [L/ S/ n=  556. / . 090/ . 040]
03149>         [Vmx=  . 465: Dmx= 1. 060]
03150> #
03151> # Addition of Subwatershed 5Al and Subwatershed 5A2 to Node 5A
03152> #
03153> R0005: C00058------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03154>       ADD HYD                 1. 0 02: N5A          45409. 01    43. 490 No_date   35: 47   17. 49   n/a      .000
03155>                           +     1. 0 02: SW_5A2          20. 00      . 483 No_date   28: 36   25. 62   n/a      .000
03156>                           +     1. 0 02: SW_5Al        1412. 00     4. 646 No_date   37: 58   21. 98   n/a      .000
03157>                         SUM=    1. 0 01: S_N5A       46841. 01    47. 976 No_date   35: 58   17. 63   n/a      .000
03158> #
03159> # Sum of hydrographs from Node 5A routed to Node 4
03160> # Section 8
03161> #
03162> R0005: C00059------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03163>       ROUTE CHANNEL   ->      1. 0 02: S_N5A        46841. 01    47. 976 No_date   35: 58   17. 63   n/a      .000
03164>         [RDT= 1. 00] out<-      1. 0 01: LM_CK        1021. 00     8. 861 No_date   28: 04   25. 07   n/a      .000
03165>         [L/ S/ n= 4630. / . 043/ . 035]
03166>         [Vmx=  . 756: Dmx= 3. 116]
03167> #
03168> # Addition of Subwatershed 4 and Leamy Creek to Node 4
03169> #
03170> R0005: C00060------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03171>       ADD HYD                 1. 0 02: N4           46841. 01    46. 217 No_date   37: 26   17. 63   n/a      .000
03172>                           +     1. 0 02: SW_4          585. 00     6. 688 No_date   29: 57   25. 62   n/a      .000
03173>                           +     1. 0 02: LM_CK         1021. 00     8. 861 No_date   28: 04   25. 07   n/a      .000
03174>                         SUM=    1. 0 01: S_N4        48447. 00    50. 308 No_date   36: 47   17. 89   n/a      .000
03175> R0005: C00061------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03176>       SAVE HYD                1. 0 01: S_N4         48447. 00    50. 308 No_date   36: 47   17. 89   n/a      .000
03177>         fname : S_N4. 0005
03178>         remark: flow at S_N4
03179> #

03180> # Sum of hydrographs from Node 4 routed to Node 2
03181> # Section 9
03182> #
03183> R0005: C00062------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03184>       ROUTE CHANNEL   ->      1. 0 02: S_N4         48447. 00    50. 308 No_date   36: 47   17. 89   n/a      .000
03185>         [RDT= 1. 00] out<-      1. 0 01: N2           48447. 00    50. 131 No_date   37: 08   17. 89   n/a      .000
03186>         [L/ S/ n= 1667. / . 060/ . 040]
03187>         [Vmx=  . 781: Dmx= 3. 131]
03188> #
03189> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
03190> #
03191> R0005: C00063------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03192>       ADD HYD                 1. 0 02: N2           48447. 00    50. 131 No_date   37: 08   17. 89   n/a      .000
03193>                           +     1. 0 02: SW_2          177. 00     3. 240 No_date   28: 45   22. 97   n/a      .000
03194>                           +     1. 0 02: SM_DR         1122. 00     8. 165 No_date   31: 48   25. 62   n/a      .000
03195>                           +     1. 0 02: MD_DR         2737. 00    17. 859 No_date   31: 33   22. 47   n/a      .000
03196>                         SUM=    1. 0 01: S_N2         52483. 00    67. 222 No_date   33: 17   18. 31   n/a      .000
03197> R0005: C00064------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03198>       SAVE HYD                1. 0 01: S_N2         52483. 00    67. 222 No_date   33: 17   18. 31   n/a      .000
03199>         fname : H_SN2
03200>         remark: flow at S_N2 Jock River Gauge at Moodie Dr.
03201> #
03202> # Sum of hydrographs from Node 2 routed to Node 1
03203> # Section 10
03204> #
03205> #*******************************************************************************
03206> #
03207> # Hydrograph from Node 2 routed to Node 416
03208> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
03209> #
03210> R0005: C00065------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03211>       ROUTE CHANNEL   ->      1. 0 02: S_N2         52483. 00    67. 222 No_date   33: 17   18. 31   n/a      .000
03212>         [RDT= 1. 00] out<-      1. 0 01: N_416        52483. 00    65. 664 No_date   34: 34   18. 31   n/a      .000
03213>         [L/ S/ n= 2327. / . 050/ . 055]
03214>         [Vmx=  . 658: Dmx= 2. 660]
03215> #*******************************************************************************
03216> #     Catchment SW1a
03217> #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
03218> #     - Undeveloped agricultural land
03219> #*******************************************************************************
03220> R0005: C00066------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03221>       CONTINUOUS NASHYD       1. 0 01: SW_1a          536. 42      3. 012 No_date   31: 18   19. 00 . 333     .000
03222>         [CN= 72. 0:  N= 3. 00:  Tp= 2. 79]
03223>         [ IaREC= 4. 00:  SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
03224>         [ InterEventTime= 12. 00]
03225> R0005: C00067------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03226>       CONTINUOUS STANDHYD     1. 0 01: S- 1- Okeefe    44. 93       4. 591 No_date   28: 03   42. 00 . 735     .000
03227>         [XI MP= . 65: TI MP= . 65]
03228>         [LOSS= 2 : CN= 75. 0]
03229>         [Pervious       area:  IAper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
03230>         [Impervious     area:  IAimp= 1. 57: SLPI= . 75: LGI= 547. : MNI= . 013: SCI=    . 0]
03231>         [ IaREC imp=   4. 00:  IaRECper=    4. 00]
03232>         [ SM N= 33. 81:  SMX= 225. 43:  SK= . 010]
03233> R0005: C00068------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03234>       ADD HYD                 1. 0 02: N_416        52483. 00    65. 664 No_date   34: 34   18. 31   n/a      .000
03235>                           +     1. 0 02: SW_1a         536. 42      3. 012 No_date   31: 18   19. 00   n/a      .000
03236>                           +     1. 0 02: S- 1- Okeefe   44. 93       4. 591 No_date   28: 03   42. 00   n/a      .000
03237>                         SUM=    1. 0 01: SN_416       53064. 36    67. 942 No_date   34: 06   18. 33   n/a      .000
03238> R0005: C00069------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03239>       SAVE HYD                1. 0 01: SN_416       53064. 36    67. 942 No_date   34: 06   18. 33   n/a      .000
03240>         fname : SN_416. 0005
03241>         remark: Total Flows at Highway 416
03242> #
03243> # Hydrograph from Node 416 routed to Node at Okeefe drain
03244> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
03245> #
03246> R0005: C00070------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03247>       ROUTE CHANNEL   ->      1. 0 02: SN_416       53064. 36    67. 942 No_date   34: 06   18. 33   n/a      .000
03248>         [RDT= 1. 00] out<-      1. 0 01: N_OK         53064. 36    67. 912 No_date   34: 06   18. 33   n/a      .000
03249>         [L/ S/ n=  497. / . 302/ . 055]
03250>         [Vmx=  1. 355: Dmx= 2. 252]
03251> #*******************************************************************************
03252> #     Catchment OKEEFE
03253> #     - To O'Keefe drain (north of the Jock)
03254> #     - Developed with assumed 43% imp.
03255> #     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
03256> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMM5 model (Citi-Gate 2014).
03257> #*******************************************************************************
03258> R0005: C00071------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03259>       CONTINUOUS NASHYD       1. 0 01: O- 1           63. 72       . 514 No_date   28: 59   13. 88 . 243     .000
03260>         [CN= 61. 0:  N= 3. 00:  Tp=  . 90]
03261>         [ IaREC= 4. 00:  SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
03262>         [ InterEventTime= 12. 00]
03263> R0005: C00072------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03264>       ROUTE CHANNEL   ->      1. 0 02: O- 1           63. 72       . 514 No_date   28: 59   13. 88   n/a      .000
03265>         [RDT= 1. 00] out<-      1. 0 01: O- 1R          63. 72       . 470 No_date   29: 19   13. 88   n/a      .000
03266>         [L/ S/ n=  960. / . 630/ . 043]
03267>         [Vmx=  . 682: Dmx=  . 283]
03268> R0005: C00073------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03269>       CONTINUOUS NASHYD       1. 0 01: O- 2           28. 61       . 183 No_date   29: 14   12. 96 . 227     .000
03270>         [CN= 57. 0:  N= 3. 00:  Tp= 1. 10]
03271>         [ IaREC= 4. 00:  SM N= 76. 32:  SMX= 508. 81:  SK= . 010]
03272>         [ InterEventTime= 12. 00]
03273> R0005: C00074------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03274>       CONTINUOUS NASHYD       1. 0 01: O- 3           46. 94       . 222 No_date   29: 01    9. 87 . 173     .000
03275>         [CN= 49. 0:  N= 3. 00:  Tp=  . 90]
03276>         [ IaREC= 4. 00:  SM N= 104. 59:  SMX= 697. 25:  SK= . 010]
03277>         [ InterEventTime= 12. 00]
03278> R0005: C00075------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03279>       ADD HYD                 1. 0 02: O- 1R          63. 72       . 470 No_date   29: 19   13. 88   n/a      .000
03280>                           +     1. 0 02: O- 2           28. 61       . 183 No_date   29: 14   12. 96   n/a      .000
03281>                           +     1. 0 02: O- 3           46. 94       . 222 No_date   29: 01    9. 87   n/a      .000
03282>                         SUM=    1. 0 01: OKF- N        139. 27       . 867 No_date   29: 14   12. 34   n/a      .000
03283> R0005: C00076------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03284>       ROUTE CHANNEL   ->      1. 0 02: OKF- N        139. 27       . 867 No_date   29: 14   12. 34   n/a      .000
03285>         [RDT= 1. 00] out<-      1. 0 01: OKF- NR       139. 27       . 866 No_date   29: 17   12. 34   n/a      .000
03286>         [L/ S/ n=  210. / . 810/ . 043]
03287>         [Vmx=  . 853: Dmx=  . 550]
03288> R0005: C00077------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03289>       CONTINUOUS NASHYD       1. 0 01: O- 6           16. 46       . 074 No_date   28: 46    8. 71 . 152     .000
03290>         [CN= 43. 0:  N= 3. 00:  Tp=  . 70]
03291>         [ IaREC= 4. 00:  SM N= 134. 47:  SMX= 896. 47:  SK= . 010]
03292>         [ InterEventTime= 12. 00]
03293> R0005: C00078------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03294>       CONTINUOUS STANDHYD     1. 0 01: O- 3           39. 67       . 605 No_date   28: 25   15. 80 . 277     .000
03295>         [XI MP= . 15: TI MP= . 30]
03296>         [LOSS= 2 : CN= 50. 0]
03297>         [Pervious       area:  IAper= 4. 67: SLPP=  . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
03298>         [Impervious     area:  IAimp= 1. 57: SLPI=  . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
03299>         [ IaREC imp=   4. 00:  IaRECper=    4. 00]
03300>         [ SM N= 99. 77:  SMX= 665. 12:  SK= . 010]
03301> R0005: C00079------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03302>       CONTINUOUS STANDHYD     1. 0 01: O- 5           60. 63       1. 453 No_date   28: 11   17. 75 . 311     .000
03303>         [XI MP= . 13: TI MP= . 26]
03304>         [LOSS= 2 : CN= 61. 0]
03305>         [Pervious       area:  IAper= 4. 67: SLPP= 1. 38: LGP= 550. : MNP= . 035: SCP=    . 0]
03306>         [Impervious     area:  IAimp= 1. 57: SLPI= 1. 38: LGI= 1450. : MNI= . 013: SCI=    . 0]
03307>         [ IaREC imp=   4. 00:  IaRECper=    4. 00]
03308>         [ SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
03309> R0005: C00080------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03310>       ADD HYD                 1. 0 02: OKF- NR       139. 27       . 866 No_date   29: 17   12. 34   n/a      .000
03311>                           +     1. 0 02: O- 3           39. 67       . 605 No_date   28: 25   15. 80   n/a      .000
03312>                           +     1. 0 02: O- 5           60. 63       1. 453 No_date   28: 11   17. 75   n/a      .000
03313>                           +     1. 0 02: O- 6           16. 46       . 074 No_date   28: 46    8. 71   n/a      .000
03314>                         SUM=    1. 0 01: PT1          256. 03      2. 312 No_date   28: 24   13. 92   n/a      .000
03315> R0005: C00081------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03316>       CONTINUOUS NASHYD       1. 0 01: O- 7            5. 28       . 041 No_date   28: 37   11. 36 . 199     .000
03317>         [CN= 54. 0:  N= 3. 00:  Tp=  . 60]
03318>         [ IaREC= 4. 00:  SM N= 87. 01:  SMX= 580. 07:  SK= . 010]
03319>         [ InterEventTime= 12. 00]
03320> R0005: C00082------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03321>       ADD HYD                 1. 0 02: PT1          256. 03      2. 312 No_date   28: 24   13. 92   n/a      .000
03322>                           +     1. 0 02: O- 7            5. 28       . 041 No_date   28: 37   11. 36   n/a      .000
03323>                         SUM=    1. 0 01: FF           261. 31      2. 351 No_date   28: 25   13. 87   n/a      .000
03324> R0005: C00083------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03325>       ROUTE CHANNEL   ->      1. 0 02: FF           261. 31      2. 351 No_date   28: 25   13. 87   n/a      .000
03326>         [RDT= 1. 00] out<-      1. 0 01: DRAI NI      261. 31      2. 298 No_date   28: 31   13. 87   n/a      .000
03327>         [L/ S/ n=  302. / 1. 000/ . 043]
03328>         [Vmx=  . 817: Dmx=  . 624]
03329> R0005: C00084------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03330>       CONTINUOUS NASHYD       1. 0 01: DI             1. 17       . 044 No_date   28: 12   23. 49 . 411     .000
03331>         [CN= 84. 0:  N= 3. 00:  Tp=  . 28]
03332>         [ IaREC= 4. 00:  SM N= 21. 09:  SMX= 140. 62:  SK= . 010]
03333>         [ InterEventTime= 12. 00]
03334> R0005: C00085------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03335>       CONTINUOUS STANDHYD     1. 0 01: AI             2. 50       . 337 No_date   28: 01   44. 03 . 771     .000
03336>         [XI MP= . 68: TI MP= . 85]
03337>         [Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
03338>         [Pervious       area:  IAper= 4. 67: SLPP=    . 50: LGP=    50. : MNP= . 250: SCP=    . 0]
03339>         [Impervious     area:  IAimp= 1. 57: SLPI=    . 50: LGI=   224. : MNI= . 013: SCI=    . 0]
03340>         [ IaREC imp=   4. 00:  IaRECper=    4. 00]
03341> R0005: C00086------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03342>       ROUTE RESERVOIR ->      1. 0 02: AI             2. 50       . 337 No_date   28: 01   44. 03   n/a      .000
03343>                         out <=    1. 0 01: AI- STR        2. 50       . 076 No_date   28: 28   44. 03   n/a      .000
03344>                       overflow <=     1. 0 03: AI- OVF          . 00       . 000 No_date    0: 00    . 00   n/a      .000
03345>         [MxSt oXed= 5. 227E- 01  m3,  Tot Out Vol=  . 0000E+ 00  m3,  N Ov f=     0,  Tot Dur Ov f=     0. hrs]
03346> R0005: C00087------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03347>       CONTINUOUS STANDHYD     1. 0 01: ST- 2            . 59       . 062 No_date   28: 00   33. 25 . 582     .000
03348>         [XI MP= . 46: TI MP= . 57]
03349>         [Horton parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
03350>         [Pervious       area:  IAper= 4. 67: SLPP=    . 50: LGP=    50. : MNP= . 250: SCP=    . 0]
03351>         [Impervious     area:  IAimp= 1. 57: SLPI=    . 50: LGI=   109. : MNI= . 013: SCI=    . 0]
03352>         [ IaREC imp=   4. 00:  IaRECper=    4. 00]
03353> R0005: C00088------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03354>       ROUTE RESERVOIR ->      1. 0 02: ST- 2            . 59       . 062 No_date   28: 00   33. 25   n/a      .000
03355>                         out <=    1. 0 01: ST2STR         . 59       . 052 No_date   28: 03   33. 25   n/a      .000
03356>                       overflow <=     1. 0 03: ST2OVF           . 00       . 000 No_date    0: 00    . 00   n/a      .000
03357>         [MxSt oXed= 1. 200E- 02  m3,  Tot Out Vol=  . 0000E+ 00  m3,  N Ov f=     0,  Tot Dur Ov f=     0. hrs]
03358> R0005: C00089------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03359>       CONTINUOUS NASHYD       1. 0 01: O- 8           60. 55       . 658 No_date   29: 05   18. 08 . 317     .000
03360>         [CN= 69. 0:  N= 3. 00:  Tp= 1. 00]
03361>         [ IaREC= 4. 00:  SM N= 44. 82:  SMX= 298. 82:  SK= . 010]
03362>         [ InterEventTime= 12. 00]
03363> R0005: C00090------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03364>       ROUTE PI PE     ->      1. 0 02: O- 8           60. 55       . 658 No_date   29: 05   18. 08   n/a      .000
03365>         [RDT= 1. 00] out<-      1. 0 01: OSPI PE        60. 55       . 654 No_date   29: 09   18. 08   n/a      .000
03366>         [L/ S/ n=  335. / . 100/ . 013]
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03267>      [Vmx=   .991: Dmx=   .368]
03268>      [HGHT=  1.20: WDTH=  1.80]
03269> R0005: C00091----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03270>      ADD HYD                1.0 02: DRAI N1          261. 31      2. 298 No_date   28: 31    13. 87   n/a      .000
03271>                         +   1.0 02: DI               1. 17        .044 No_date   28: 12    23. 49   n/a      .000
03272>                         +   1.0 02: AI- STR          2. 50        .076 No_date   28: 28    44. 03   n/a      .000
03273>                         +   1.0 02: AI- OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03274>                         +   1.0 02: ST2STR           .59        .052 No_date   28: 03    33. 25   n/a      .000
03275>                         +   1.0 02: ST2OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03276>                         +   1.0 02: OKPI PE        60. 55        .654 No_date   29: 09    18. 08   n/a      .000
03277>                     SUM=    1.0 01: ST2- 1 N       326. 12      2. 907 No_date   28: 39    14. 95   n/a      .000
03278> R0005: C00092----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03279>      CONTI NUOUS STANDHYD   1. 0 01: A7              3. 51        .460 No_date   28: 02    44. 03   .771     .000
03280>        [ XI M=  .68: TI MP=  .85]
03281>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03282>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03283>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  265. : MNI =. 013: SCI =   .0]
03284>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03285> R0005: C00093----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03286>      ROUTE RESERVOI R -> 1. 0 02: A7              3. 51        .460 No_date   28: 02    44. 03   n/a      .000
03287>                        out <=  1. 0 01: A7- STR      3. 51        .108 No_date   28: 29    44. 03   n/a      .000
03288>                    overflow <=  1. 0 03: A7- OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03289>        [ Mi St ol ked=. 7349E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03290> R0005: C00094----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03291>      CONTI NUOUS STANDHYD   1. 0 01: ST- 3             .71        .073 No_date   28: 00    33. 25   .582     .000
03292>        [ XI M=  .46: TI MP=  .57]
03293>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03294>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03295>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  119. : MNI =. 013: SCI =   .0]
03296>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03297> R0005: C00095----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03298>      ROUTE RESERVOI R -> 1. 0 02: ST- 3             .71        .073 No_date   28: 00    33. 25   n/a      .000
03299>                        out <=  1. 0 01: ST3STR       .71        .063 No_date   28: 03    33. 25   n/a      .000
03300>                    overflow <=  1. 0 03: ST3OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03301>        [ Mi St ol ked=. 1203E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03302> R0005: C00096----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03303>      ADD HYD                1. 0 02: ST2- 1 N       326. 12      2. 907 No_date   28: 39    14. 95   n/a      .000
03304>                         +   1. 0 02: A7- STR          3. 51        .108 No_date   28: 29    44. 03   n/a      .000
03305>                         +   1. 0 02: A7- OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03306>                         +   1. 0 02: ST3STR           .71        .063 No_date   28: 03    33. 25   n/a      .000
03307>                         +   1. 0 02: ST3OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03308>                     SUM=    1. 0 01: PT2ST3         330. 34      3. 026 No_date   28: 38    15. 30   n/a      .000
03309> R0005: C00097----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03310>      ROUTE CHANNEL          ->  1. 0 02: PT2ST3         330. 34      3. 026 No_date   28: 38    15. 30   n/a      .000
03311>        [ RDT=  1. 00] out <-    1. 0 01: DRAI N2        330. 34      2. 842 No_date   29: 04    15. 30   n/a      .000
03312>        [ L/ S/ n=   592. /  . 230/ . 043]
03313>        [ Vmx=   . 607: Dmx=   . 930]
03314> R0005: C00098----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03315>      CONTI NUOUS NASHYD     1. 0 01: D2              2. 28        .035 No_date   29: 05    23. 49   .411     .000
03316>        [ CN=  84. 0: N=  3. 00: Tp=   . 99]
03317>        [ Ia REC=  4. 00: SM N=  21. 09: SMAX=140. 62: SK=  .010]
03318>        [ Inter Event Time=  12. 00]
03319> R0005: C00099----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03320>      CONTI NUOUS STANDHYD   1. 0 01: A7              12. 04       1. 379 No_date   28: 04    44. 03   .771     .000
03321>        [ XI M=  .68: TI MP=  .85]
03322>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03323>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03324>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  491. : MNI =. 013: SCI =   .0]
03325>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03326> R0005: C00100----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03327>      ROUTE RESERVOI R -> 1. 0 02: AI 7            12. 04       1. 379 No_date   28: 04    44. 03   n/a      .000
03328>                        out <=  1. 0 01: AI 7STR     12. 04        .353 No_date   28: 36    44. 03   n/a      .000
03329>                    overflow <=  1. 0 03: AI 7OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03330>        [ Mi St ol ked=. 2492E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03331> R0005: C00101----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03332>      CONTI NUOUS STANDHYD   1. 0 01: ST- 4             .35        .038 No_date   28: 00    33. 25   .582     .000
03333>        [ XI M=  .46: TI MP=  .57]
03334>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03335>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03336>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  84. : MNI =. 013: SCI =   .0]
03337>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03338> R0005: C00102----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03339>      ROUTE RESERVOI R -> 1. 0 02: ST- 4             .35        .038 No_date   28: 00    33. 25   n/a      .000
03340>                        out <=  1. 0 01: ST4STR       .35        .031 No_date   28: 03    33. 25   n/a      .000
03341>                    overflow <=  1. 0 03: ST4OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03342>        [ Mi St ol ked=. 1040E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03343> R0005: C00103----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03344>      CONTI NUOUS STANDHYD   1. 0 01: AI 8             5. 30        .671 No_date   28: 02    44. 03   .771     .000
03345>        [ XI M=  .68: TI MP=  .85]
03346>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03347>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03348>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  326. : MNI =. 013: SCI =   .0]
03349>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03350> R0005: C00104----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03351>      ROUTE RESERVOI R -> 1. 0 02: AI 8             5. 30        .671 No_date   28: 02    44. 03   n/a      .000
03352>                        out <=  1. 0 01: AI 8STR      5. 30        .160 No_date   28: 31    44. 03   n/a      .000
03353>                    overflow <=  1. 0 03: AI 8OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03354>        [ Mi St ol ked=. 1108E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03355> R0005: C00105----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03356>      ADD HYD                1. 0 02: DRAI N2        330. 34      2. 842 No_date   29: 04    15. 30   n/a      .000
03357>                         +   1. 0 02: DI               2. 28        .035 No_date   29: 05    23. 49   n/a      .000
03358>                         +   1. 0 02: AI 7STR         12. 04        .353 No_date   28: 36    44. 03   n/a      .000
03359>                         +   1. 0 02: AI 7OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03360>                         +   1. 0 02: ST4STR           .35        .031 No_date   28: 03    33. 25   n/a      .000
03361>                         +   1. 0 02: ST4OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03362>                         +   1. 0 02: AI 8STR          5. 30        .160 No_date   28: 31    44. 03   n/a      .000
03363>                         +   1. 0 02: AI 8OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03364>                     SUM=    1. 0 01: PT3ST4         350. 31      3. 317 No_date   28: 57    16. 79   n/a      .000
03365> R0005: C00106----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03366>      ROUTE CHANNEL          ->  1. 0 02: PT3ST4         350. 31      3. 317 No_date   28: 57    16. 79   n/a      .000
03367>        [ RDT=  1. 00] out <-    1. 0 01: DRAI N3        350. 31      3. 191 No_date   29: 19    16. 79   n/a      .000
03368>        [ L/ S/ n=   525. /  . 230/ . 043]
03369>        [ Vmx=   . 635: Dmx=   . 979]
03370> R0005: C00107----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03371>      CONTI NUOUS NASHYD     1. 0 01: D3              2. 51        .055 No_date   28: 45    25. 92   .454     .000
03372>        [ CN=  86. 0: N=  3. 00: Tp=   . 73]
03373>        [ Ia REC=  4. 00: SM N=  21. 43: SMAX=116. 21: SK=  .010]
03374>        [ Inter Event Time=  12. 00]
03375> R0005: C00108----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03376>      CONTI NUOUS STANDHYD   1. 0 01: C1              3. 41        .450 No_date   28: 01    44. 03   .771     .000
03377>        [ XI M=  .68: TI MP=  .85]
03378>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03379>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03380>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  261. : MNI =. 013: SCI =   .0]
03381>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03382> R0005: C00109----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03383>      ROUTE RESERVOI R -> 1. 0 02: C1              3. 41        .450 No_date   28: 01    44. 03   n/a      .000
03384>                        out <=  1. 0 01: C1- STR      3. 41        .104 No_date   28: 29    44. 03   n/a      .000
03385>                    overflow <=  1. 0 03: C1- OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03386>        [ Mi St ol ked=. 7123E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03387> R0005: C00110----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03388>      CONTI NUOUS STANDHYD   1. 0 01: ST- 5             .45        .048 No_date   28: 00    33. 25   .582     .000
03389>        [ XI M=  .46: TI MP=  .57]
03390>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03391>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03392>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  95. : MNI =. 013: SCI =   .0]
03393>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03394> R0005: C00111----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03395>      ROUTE RESERVOI R -> 1. 0 02: ST- 5             .45        .048 No_date   28: 00    33. 25   n/a      .000
03396>                        out <=  1. 0 01: ST5STR       .45        .040 No_date   28: 03    33. 25   n/a      .000
03397>                    overflow <=  1. 0 03: ST5OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03398>        [ Mi St ol ked=. 1108E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03399> R0005: C00112----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03400>      ADD HYD                1. 0 02: DRAI N3        350. 31      3. 191 No_date   29: 19    16. 79   n/a      .000
03401>                         +   1. 0 02: DI               2. 51        .055 No_date   28: 45    25. 92   n/a      .000
03402>                         +   1. 0 02: C1- STR          3. 41        .104 No_date   28: 29    44. 03   n/a      .000
03403>                         +   1. 0 02: C1- OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03404>                         +   1. 0 02: ST5STR           .45        .040 No_date   28: 03    33. 25   n/a      .000
03405>                         +   1. 0 02: ST5OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03406>                     SUM=    1. 0 01: ST5- E         356. 68      3. 312 No_date   29: 13    17. 14   n/a      .000
03407> R0005: C00113----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03408>      CONTI NUOUS STANDHYD   1. 0 01: STRAND          7. 59        .640 No_date   28: 12    42. 86   .750     .000
03409>        [ XI M=  .64: TI MP=  .85]
03410>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03411>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=   .0]
03412>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =1230. : MNI =. 013: SCI =   .0]
03413>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03414> R0005: C00114----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03415>      ROUTE RESERVOI R -> 1. 0 02: STRAND          7. 59        .640 No_date   28: 12    42. 86   n/a      .000
03416>                        out <=  1. 0 01: S- POND      7. 59        .048 No_date   29: 55    42. 86   n/a      .000
03417>                    overflow <=  1. 0 03: S- OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03418>        [ Mi St ol ked=. 2288E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03419> R0005: C00115----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03420>      ADD HYD                1. 0 02: ST5- E         356. 68      3. 312 No_date   29: 13    17. 14   n/a      .000
03421>                         +   1. 0 02: S- POND          7. 59        .048 No_date   29: 55    42. 86   n/a      .000
03422>                         +   1. 0 02: S- OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03423>                     SUM=    1. 0 01: SSAOUT         364. 27      3. 358 No_date   29: 13    17. 68   n/a      .000
03424> R0005: C00116----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03425>      SAVE HYD               1. 0 01: SSAOUT         364. 27      3. 358 No_date   29: 13    17. 68   n/a      .000
03426>          fname : SSAOUT. 0005
03427>          remark: SSAOUT
03428> R0005: C00117----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03429>      CONTI NUOUS STANDHYD   1. 0 01: Area- A          66. 75       5. 433 No_date   28: 11    42. 06   .736     .000
03430>        [ XI M=  .64: TI MP=  .80]
03431>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03432>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03433>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =1155. : MNI =. 013: SCI =   .0]
03434>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03435> R0005: C00118----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03436>      SAVE HYD               1. 0 01: Area- A          66. 75       5. 433 No_date   28: 11    42. 06   n/a      .000
03437>          fname : Area- A. 0005
03438>          remark: SMWF- A Inflow
03439> R0005: C00119----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03440>      ROUTE RESERVOI R -> 1. 0 02: Area- A          66. 75       5. 433 No_date   28: 11    42. 06   n/a      .000
03441>                        out <=  1. 0 01: SWMF- A      66. 75        .298 No_date   30: 20    42. 06   n/a      .000
03442>                    overflow <=  1. 0 03: SWMOV         .00        .000 No_date   0: 00      .00   n/a      .000
03443>        [ Mi St ol ked=. 2106E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03444> R0005: C00120----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03445>      SAVE HYD               1. 0 01: SWMF- A          66. 75        .298 No_date   30: 20    42. 06   n/a      .000
03446>          fname : SWMF- A. 0005
03447>          remark: SMWF- A Outflow
03448> R0005: C00121----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03449>      ADD HYD                1. 0 02: SSAOUT         364. 27      3. 358 No_date   29: 13    17. 68   n/a      .000
03450>                         +   1. 0 02: SWMF- A          66. 75        .298 No_date   30: 20    42. 06   n/a      .000
03451>                         +   1. 0 02: SWMOV           .00        .000 No_date   0: 00      .00   n/a      .000
03452>                     SUM=    1. 0 01: PT4ST5         431. 02      3. 613 No_date   29: 19    21. 45   n/a      .000
03453> R0005: C00122----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03454>      CONTI NUOUS STANDHYD   1. 0 01: C6              1. 87        .260 No_date   28: 01    44. 03   .771     .000
03455>        [ XI M=  .68: TI MP=  .85]
03456>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03457>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03458>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  193. : MNI =. 013: SCI =   .0]
03459>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03460> R0005: C00123----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03461>      ROUTE RESERVOI R -> 1. 0 02: C6              1. 87        .260 No_date   28: 01    44. 03   n/a      .000
03462>                        out <=  1. 0 01: C6- STR      1. 87        .058 No_date   28: 26    44. 03   n/a      .000
03463>                    overflow <=  1. 0 03: C6- OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03464>        [ Mi St ol ked=. 3924E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03465> R0005: C00124----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03466>      CONTI NUOUS STANDHYD   1. 0 01: C7              1. 62        .227 No_date   28: 01    44. 03   .771     .000
03467>        [ XI M=  .68: TI MP=  .85]
03468>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03469>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03470>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  180. : MNI =. 013: SCI =   .0]
03471>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03472> R0005: C00125----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03473>      ROUTE RESERVOI R -> 1. 0 02: C7              1. 62        .227 No_date   28: 01    44. 03   n/a      .000
03474>                        out <=  1. 0 01: C7- STR      1. 62        .050 No_date   28: 26    44. 03   n/a      .000
03475>                    overflow <=  1. 0 03: C7- OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03476>        [ Mi St ol ked=. 3391E- 01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03477> R0005: C00126----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03478>      CONTI NUOUS STANDHYD   1. 0 01: ST- 6             .41        .044 No_date   28: 00    33. 25   .582     .000
03479>        [ XI M=  .46: TI MP=  .57]
03480>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03481>        [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  50. : MNP=. 250: SCP=   .0]
03482>        [ Impervious    area: I Aimp= 1. 57: SLPI =  .50: LGI =  91. : MNI =. 013: SCI =   .0]
03483>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03484> R0005: C00127----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03485>      ROUTE RESERVOI R -> 1. 0 02: ST- 6             .41        .044 No_date   28: 00    33. 25   n/a      .000
03486>                        out <=  1. 0 01: ST6STR       .41        .036 No_date   28: 03    33. 25   n/a      .000
03487>                    overflow <=  1. 0 03: ST6OVF       .00        .000 No_date   0: 00      .00   n/a      .000
03488>        [ Mi St ol ked=. 1092E- 02   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03489> R0005: C00128----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03490>      ADD HYD                1. 0 02: PT4ST5         431. 02      3. 613 No_date   29: 19    21. 45   n/a      .000
03491>                         +   1. 0 02: C6- STR          1. 87        .058 No_date   28: 26    44. 03   n/a      .000
03492>                         +   1. 0 02: C6- OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03493>                         +   1. 0 02: C7- STR          1. 62        .050 No_date   28: 26    44. 03   n/a      .000
03494>                         +   1. 0 02: C7- OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03495>                         +   1. 0 02: ST6STR           .41        .036 No_date   28: 03    33. 25   n/a      .000
03496>                         +   1. 0 02: ST6OVF           .00        .000 No_date   0: 00      .00   n/a      .000
03497>                     SUM=    1. 0 01: PT5ST6         434. 92      3. 684 No_date   29: 13    21. 64   n/a      .000
03498> R0005: C00129----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03499>      ROUTE CHANNEL          ->  1. 0 02: PT5ST6         434. 92      3. 684 No_date   29: 13    21. 64   n/a      .000
03500>        [ RDT=  1. 00] out <-    1. 0 01: DRAI N4        434. 92      3. 572 No_date   29: 35    21. 64   n/a      .000
03501>        [ L/ S/ n=   324. /  . 100/ . 043]
03502>        [ Vmx=   . 480: Dmx=   1. 218]
03503> R0005: C00130----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03504>      CONTI NUOUS NASHYD     1. 0 01: D4              1. 73        .049 No_date   28: 35    27. 98   .490     .000
03505>        [ CN=  88. 0: N=  3. 00: Tp=   . 60]
03506>        [ Ia REC=  4. 00: SM N=  14. 94: SMAX=  99. 61: SK=  .010]
03507>        [ Inter Event Time=  12. 00]
03508> R0005: C00131----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03509>      CONTI NUOUS STANDHYD   1. 0 01: Area- B          24. 04       2. 784 No_date   28: 04    40. 98   .717     .000
03510>        [ XI M=  .62: TI MP=  .77]
03511>        [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03512>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 40: LGP=  50. : MNP=. 250: SCP=   .0]
03513>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 40: LGI =  693. : MNI =. 013: SCI =   .0]
03514>        [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
03515> R0005: C00132----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03516>      ROUTE RESERVOI R -> 1. 0 02: Area- B          24. 04       2. 784 No_date   28: 04    40. 98   n/a      .000
03517>                        out <=  1. 0 01: SWMF- B      24. 04        .278 No_date   28: 55    40. 98   n/a      .000
03518>                    overflow <=  1. 0 03: SWMBOVF       .00        .000 No_date   0: 00      .00   n/a      .000
03519>        [ Mi St ol ked=. 6277E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03520> R0005: C00133----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03521>      ADD HYD                1. 0 02: DRAI N4        434. 92      3. 572 No_date   29: 35    21. 64   n/a      .000
03522>                         +   1. 0 02: DI4              1. 73        .049 No_date   28: 35    27. 98   n/a      .000
03523>                         +   1. 0 02: SWMF- B          24. 04        .278 No_date   28: 55    40. 98   n/a      .000
03524>                         +   1. 0 02: SWMBOVF           .00        .000 No_date   0: 00      .00   n/a      .000
03525>                     SUM=    1. 0 01: DI4- EX         460. 69      3. 861 No_date   29: 25    22. 68   n/a      .000
03526> R0005: C00134----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03527>      ROUTE CHANNEL          ->  1. 0 02: DI4- EX         460. 69      3. 861 No_date   29: 25    22. 68   n/a      .000
03528>        [ RDT=  1. 00] out <-    1. 0 01: DRAI N5        460. 69      3. 810 No_date   29: 44    22. 68   n/a      .000
03529>        [ L/ S/ n=   413. /  . 160/ . 033]
03530>        [ Vmx=   . 561: Dmx=   . 823]
03531> R0005: C00135----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03532>      CONTI NUOUS NASHYD     1. 0 01: D5              1. 90        .044 No_date   28: 42    25. 92   .454     .000
03533>        [ CN=  86. 0: N=  3. 00: Tp=   . 69]
03534>        [ Ia REC=  4. 00: SM N=  17. 43: SMAX=116. 21: SK=  .010]
03535>        [ Inter Event Time=  12. 00]
03536> R0005: C00136----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03537>      CONTI NUOUS NASHYD     1. 0 01: O- 13SDF         9. 74        .290 No_date   28: 22    24. 64   .431     .000
03538>        [ CN=  81. 0: N=  3. 00: Tp=   . 43]
03539>        [ Ia REC=  4. 00: SM N=  25. 21: SMAX=168. 09: SK=  .010]
03540>        [ Inter Event Time=  12. 00]
03541> R0005: C00137----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03542>      ROUTE RESERVOI R -> 1. 0 02: O- 13SDF         9. 74        .290 No_date   28: 22    24. 64   n/a      .000
03543>                        out <=  1. 0 01: SDF          9. 74        .032 No_date   32: 11    24. 64   n/a      .000
03544>                    overflow <=  1. 0 03: OVFSDF        .00        .000 No_date   0: 00      .00   n/a      .000
03545>        [ Mi St ol ked=. 1268E+00   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =    0,  Tot Dur Ovf =    0. hrs]
03546> R0005: C00138----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03547>      ADD HYD                1. 0 02: DRAI NS        460. 69      3. 810 No_date   29: 44    22. 68   n/a      .000
03548>                         +   1. 0 02: DS               1. 90        .044 No_date   28: 42    25. 92   n/a      .000
03549>                         +   1. 0 02: SDF              9. 74        .032 No_date   32: 11    24. 64   n/a      .000
03550>                     SUM=    1. 0 01: PT6MC         472. 33      3. 863 No_date   29: 44    22. 73   n/a      .000
03551> R0005: C00139----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03552>      CONTI NUOUS NASHYD     1. 0 01: O- 15           10. 67        .385 No_date   28: 13    23. 43   .410     .000
03553>        [ CN=  82. 0: N=  3. 00: Tp=   . 30]
03554>        [ Ia REC=  4. 00: SM N=  23. 09: SMAX=153. 94: SK=  .010]
03555>        [ Inter Event Time=  12. 00]
03556> R0005: C00140----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03557>      ADD HYD                1. 0 02: PT6MC         472. 33      3. 863 No_date   29: 44    22. 73   n/a      .000
03558>                         +   1. 0 02: O- 15           10. 67        .385 No_date   28: 13    23. 43   n/a      .000
03559>                     SUM=    1. 0 01: MC             483. 00      3. 921 No_date   29: 44    22. 75   n/a      .000
03560> R0005: C00141----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03561>      ROUTE CHANNEL          ->  1. 0 02: MC             483. 00      3. 921 No_date   29: 44    22. 75   n/a      .000
03562>        [ RDT=  1. 00] out <-    1. 0 01: O- 14Ch        483. 00      3. 787 No_date   30: 06    22. 75   n/a      .000
03563>        [ L/ S/ n=   845. /  . 100/ . 033]
03564>        [ Vmx=   . 748: Dmx=  1. 430]
03565> R0005: C00142----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03566>      CONTI NUOUS NASHYD     1. 0 01: O- 14           5. 00        .300 No_date   28: 04    23. 43   .410     .000
03567>        [ CN=  82. 0: N=  3. 00: Tp=   . 13]
03568>        [ Ia REC=  4. 00: SM N=  23. 09: SMAX=153. 94: SK=  .010]
03569>        [ Inter Event Time=  12. 00]
03570> R0005: C00143----------DTmin-1 D: NHYD---------AREAha-QPEAK cms-TpeakDate_hh
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03741>       {MxStoUsed=.5004E+01   m3,  Tot Or Vol =.0000E+00   m3,  N-Or f=      0,  Tot Dur Or f=      0. hrs}
03742> R0005: C00151-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03743>       ADD HYD                          1. 0 02: P_FOS          325. 44      5. 174 No_date    29: 08    37. 71   n/ a      .000
03744>                                    +   1. 0 02: FO- OVF           .00          .000 No_date    0: 00      .00   n/ a      .000
03745>                                SUM=    1. 0 01: FOSTER- OUT     325. 44      5. 174 No_date    29: 08    37. 71   n/ a      .000
03746> #*************************************************************************
03747> R0005: C00152-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03748>       CONTI NUOUS STANDHYD             1. 0 01: W_CLAR_BRA      73. 29      6. 276 No_date    28: 06    41. 22 . 722      .000
03749>         [ XI M=. 60: TI MP=. 65]
03750>         [ LOSS= 2 : CN= 77. 0]
03751>         [ Pervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03752>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 50: LGI =  699. : MNI =. 013: SCI =    . 0]
03753>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03754>         [ SMI N= 31. 15: SMXx=207. 66:  SK=  . 010]
03755> R0005: C00153-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03756>       ROUTE RESERVOI R ->              1. 0 02: W_CLAR_BRA      73. 29      6. 276 No_date    28: 06    41. 22   n/ a      .000
03757>                                    out <=  1. 0 01: MS_P10          73. 29      1. 101 No_date    28: 56    41. 22   n/ a      .000
03758>                                overflow <=  1. 0 03: P10- OVF           .00          .000 No_date    0: 00      .00   n/ a      .000
03759>       {MxStoUsed=.1093E+01   m3,  Tot Or Vol =.0000E+00   m3,  N-Or f=      0,  Tot Dur Or f=      0. hrs}
03760> R0005: C00154-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03761>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- FO- D2      4. 94       . 508 No_date    28: 01    37. 71   . 660      .000
03762>         [ XI M=. 55: TI MP=. 55]
03763>         [ LOSS= 2 : CN= 74. 0]
03764>         [ Pervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
03765>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 50: LGI =  181. : MNI =. 013: SCI =    . 0]
03766>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03767>         [ SMI N= 36. 67: SMXx=244. 49:  SK=  . 010]
03768> R0005: C00155-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03769>       ADD HYD                          1. 0 02: FOSTER- OUT     325. 44      5. 174 No_date    29: 08    37. 71   n/ a      .000
03770>                                    +   1. 0 02: S: 1- FO- D2      4. 94       . 508 No_date    28: 01    37. 71   n/ a      .000
03771>                                SUM=    1. 0 01: 980            330. 38      5. 218 No_date    29: 07    37. 71   n/ a      .000
03772> R0005: C00156-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03773>       SAVE HYD                         1. 0 01: 980            330. 38      5. 218 No_date    29: 07    37. 71   n/ a      .000
03774>         fname : 980. 0005
03775>         remark: Total Flows at Station 980 on Foster Drain
03776> #
03777> # Hydrograph from Node Foster SWM ( Station 980) to Node at station 520
03778> # Channel X- Section obtained from RVCA Hydraulic Model - Station 980
03779> #
03780> R0005: C00157-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03781>       ROUTE CHANNEL            ->      1. 0 02: 980            330. 38      5. 218 No_date    29: 07    37. 71   n/ a      .000
03782>         [ RDT= 1. 00]  out <-           1. 0 01: 980- out       330. 38      5. 061 No_date    29: 14    37. 71   n/ a      .000
03783>         [ L/ S/ n=  460. /  . 043/ . 035]
03784>         [ Vmx=  . 602: Dmx=  1. 269]
03785> R0005: C00158-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03786>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- FO- DI      5. 11       . 605 No_date    28: 00    41. 68   . 730      .000
03787>         [ XI M=. 65: TI MP=. 65]
03788>         [ LOSS= 2 : CN= 74. 0]
03789>         [ Pervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
03790>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 50: LGI =  185. : MNI =. 013: SCI =    . 0]
03791>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03792>         [ SMI N= 36. 67: SMXx=244. 49:  SK=  . 010]
03793> R0005: C00159-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03794>       ADD HYD                          1. 0 02: 980- out       330. 38      5. 061 No_date    29: 14    37. 71   n/ a      .000
03795>                                    +   1. 0 02: S: 1- FO- DI      5. 11       . 605 No_date    28: 00    41. 68   n/ a      .000
03796>                                SUM=    1. 0 01: 520            335. 49      5. 103 No_date    29: 14    37. 77   n/ a      .000
03797> R0005: C00160-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03798>       SAVE HYD                         1. 0 01: 520            335. 49      5. 103 No_date    29: 14    37. 77   n/ a      .000
03799>         fname : 520. 0005
03800>         remark: Total Flows at Sation 520 on Foster Drain
03801> # Hydrograph from Node at Station 520 ( Foster Drain) to Node at station 6016 ( Jock River)
03802> # Channel X- Section obtained from RVCA Hydraulic Model - Station 520
03803> #
03804> R0005: C00161-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03805>       ROUTE CHANNEL            ->      1. 0 02: 520            335. 49      5. 103 No_date    29: 14    37. 77   n/ a      .000
03806>         [ RDT= 1. 00]  out <-           1. 0 01: 520- out       335. 49      5. 054 No_date    29: 26    37. 77   n/ a      .000
03807>         [ L/ S/ n=  860. /  . 587/ . 035]
03808>         [ Vmx=  1. 318: Dmx=  . 606]
03809> R0005: C00162-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03810>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- FO- F- D    14. 96      1. 615 No_date    28: 02    41. 68   . 730      .000
03811>         [ XI M=. 65: TI MP=. 65]
03812>         [ LOSS= 2 : CN= 74. 0]
03813>         [ Pervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
03814>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 50: LGI =  316. : MNI =. 013: SCI =    . 0]
03815>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03816>         [ SMI N= 36. 67: SMXx=244. 49:  SK=  . 010]
03817> R0005: C00163-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03818>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- D8          5. 27       . 672 No_date    28: 02    30. 94   . 542      .000
03819>         [ XI M=. 32: TI MP=. 65]
03820>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    Fi=  . 00]
03821>         [ Pervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03822>         [ Impervi ous    area: I Aimp=  . 79: SLPI =. 75: LGI =  187. : MNI =. 013: SCI =    . 0]
03823>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03824> R0005: C00164-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03825>       CONTI NUOUS NASHYD               1. 0 01: S: 1- A           75. 88      1. 479 No_date    28: 37    21. 69   . 380      .000
03826>         [ CN= 77. 0:  N= 3. 00:  Tp=   . 62]
03827>         [ I aREC= 4. 00:  SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
03828>         [ I nterEvent Ti me=  12. 00]
03829> R0005: C00165-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03830>       CONTI NUOUS NASHYD               1. 0 01: W_CLAR_UND      35. 65       . 462 No_date    29: 11    21. 69   . 380      .000
03831>         [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
03832>         [ I aREC= 4. 00:  SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
03833>         [ I nterEvent Ti me=  12. 00]
03834> R0005: C00166-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03835>       ADD HYD                          1. 0 02: 520- out     53577. 82     68. 998 No_date    34: 22    18. 39   n/ a      .000
03836>                                    +   1. 0 02: 520- out       335. 49      5. 054 No_date    29: 26    37. 77   n/ a      .000
03837>                                    +   1. 0 02: MS_P10          73. 29      1. 101 No_date    28: 56    41. 22   n/ a      .000
03838>                                    +   1. 0 02: P10- OVF            .00          .000 No_date    0: 00      .00   n/ a      .000
03839>                                    +   1. 0 02: W_CLAR_UND      35. 65       . 462 No_date    29: 11    21. 69   n/ a      .000
03840>                                    +   1. 0 02: S: 1- FO- F- D    14. 96      1. 615 No_date    28: 02    41. 68   n/ a      .000
03841>                                    +   1. 0 02: S: 1- D8          5. 27       . 672 No_date    28: 02    30. 94   . 542      .000
03842>                                    +   1. 0 02: S: 1- A           75. 88      1. 479 No_date    28: 37    21. 69   n/ a      .000
03843>                                SUM=    1. 0 01: SN_FO          54118. 36     71. 813 No_date    33: 54    18. 55   n/ a      .000
03844> R0005: C00167-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03845>       SAVE HYD                         1. 0 01: SN_FO          54118. 36     71. 813 No_date    33: 54    18. 55   n/ a      .000
03846>         fname : SN_FO. 0005
03847>         remark: Total Flows at Foster Drain
03848> # Hydrograph from Node Foster routed to Node at Cedarview Road
03849> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6016
03850> #
03851> R0005: C00168-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03852>       ROUTE CHANNEL            ->      1. 0 02: SN_FO          54118. 36     71. 813 No_date    33: 54    18. 55   n/ a      .000
03853> *       [ RDT= 1. 00]  out <-           1. 0 01: SN_CE          54118. 36     71. 742 No_date    33: 55    18. 55   n/ a      .000
03854>         [ L/ S/ n=  159. /  . 082/ . 035]
03855>         [ Vmx=  1. 246: Dmx=  3. 101]
03856> #*************************************************************************
03857> #     Catchment S- 1
03858> #     - To Jock River (north and south of Jock)
03859> #     - Primarily agricultural fields; portion of sand quarry
03860> #*************************************************************************
03861> R0005: C00169-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03862>       CONTI NUOUS NASHYD               1. 0 01: S: 1- B           55. 36      1. 342 No_date    28: 24    21. 69   . 380      .000
03863>         [ CN= 77. 0:  N= 3. 00:  Tp=   . 45]
03864>         [ I aREC= 4. 00:  SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
03865>         [ I nterEvent Ti me=  12. 00]
03866> #   -  JFSA 2021- 02- 24 change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
03867> #   -  JFSA 2021- 02- 24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore.  "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
03868> #   -  JFSA 2021- 01- 19, after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymore
03869> R0005: C00170-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03870>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- DI          21. 67      2. 409 No_date    28: 02    42. 00   . 735      .000
03871>         [ XI M=. 65: TI MP=. 65]
03872>         [ LOSS= 2 : CN= 75. 0]
03873>         [ Pervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03874>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 75: LGI =  380. : MNI =. 013: SCI =    . 0]
03875>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03876>         [ SMI N= 33. 81: SMXx=225. 43:  SK=  . 010]
03877> R0005: C00171-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03878>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- D4          3. 28       . 421 No_date    28: 00    42. 00   . 735      .000
03879>         [ XI M=. 65: TI MP=. 65]
03880>         [ LOSS= 2 : CN= 75. 0]
03881>         [ Pervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03882>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 75: LGI =  148. : MNI =. 013: SCI =    . 0]
03883>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03884>         [ SMI N= 33. 81: SMXx=225. 43:  SK=  . 010]
03885> R0005: C00172-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03886>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- D5          12. 84      1. 500 No_date    28: 01    42. 00   . 735      .000
03887>         [ XI M=. 65: TI MP=. 65]
03888>         [ LOSS= 2 : CN= 75. 0]
03889>         [ Pervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03890>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 75: LGI =  293. : MNI =. 013: SCI =    . 0]
03891>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03892>         [ SMI N= 33. 81: SMXx=225. 43:  SK=  . 010]
03893> R0005: C00173-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03894>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- D6          1. 75       . 232 No_date    28: 00    42. 00   . 735      .000
03895>         [ XI M=. 65: TI MP=. 65]
03896>         [ LOSS= 2 : CN= 75. 0]
03897>         [ Pervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03898>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 75: LGI =  108. : MNI =. 013: SCI =    . 0]
03899>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03900>         [ SMI N= 33. 81: SMXx=225. 43:  SK=  . 010]
03901> R0005: C00174-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03902>       CONTI NUOUS STANDHYD             1. 0 01: S: 1- D7          2. 03       . 265 No_date    28: 00    42. 00   . 735      .000
03903>         [ XI M=. 65: TI MP=. 65]
03904>         [ LOSS= 2 : CN= 75. 0]
03905>         [ Pervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03906>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =. 75: LGI =  116. : MNI =. 013: SCI =    . 0]
03907>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03908>         [ SMI N= 33. 81: SMXx=225. 43:  SK=  . 010]
03909> #   Catchment W_CLAR
03910> #     - To West Clarke Drain (south of the Jock)
03911> #     - Subdivision with 43% imp. as per Barrhaven South MSS
03912> #     - 2020- 11- 30 update CLARKE Tributary Drainage Area to = 121 ha based on P598( 04)- 11
03913> #     - 2020- 11- 30 split CLARKE Drainage Area to MAJOR and ALL
03914> #*************************************************************************
03915> R0005: C00175-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03916>       CONTI NUOUS STANDHYD             1. 0 01: W_CLAR_MI         1. 77       . 192 No_date    28: 00    37. 36   . 654      .000
03917>         [ XI M=. 46: TI MP=. 59]
03918>         [ LOSS= 2 : CN= 77. 0]
03919>         [ Pervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03920>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  109. : MNI =. 013: SCI =    . 0]
03921>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03922>         [ SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
03923> # 5- Year + 12% Capture
03924> R0005: C00176-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03925>       ROUTE RESERVOI R ->              1. 0 02: W_CLAR_MI         1. 77       . 192 No_date    28: 00    37. 36   n/ a      .000
03926>                                    out <=  1. 0 01: W_CLAR_MIn      1. 77       . 192 No_date    28: 00    37. 36   n/ a      .000
03927>                                overflow <=  1. 0 03: W_CLAR_MI          .00          .000 No_date    0: 00      .00   n/ a      .000
03928>       {MxStoUsed=.9116E- 04   m3,  Tot Or Vol =.0000E+00   m3,  N-Or f=      0,  Tot Dur Or f=      0. hrs}
03929> R0005: C00177-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03930>       CONTI NUOUS STANDHYD             1. 0 01: W_CLAR_ALL      119. 40     10. 597 No_date    28: 05    41. 22   . 722      .000
03931>         [ XI M=. 60: TI MP=. 65]
03932>         [ LOSS= 2 : CN= 77. 0]
03933>         [ Pervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
03934>         [ Impervi ous    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  892. : MNI =. 013: SCI =    . 0]
03935>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
03936>         [ SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
03937> R0005: C00178-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03938>       ADD HYD                          1. 0 02: W_CLAR_ALL      119. 40     10. 597 No_date    28: 05    41. 22   n/ a      .000
03939>                                    +   1. 0 02: W_CLAR_MI          .00          .000 No_date    0: 00      .00   n/ a      .000
03940>                                SUM=    1. 0 01: W_CLAR          119. 40     10. 597 No_date    28: 05    41. 22   n/ a      .000
03941> R0005: C00179-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03942>       SAVE HYD                         1. 0 01: W_CLAR          119. 40     10. 597 No_date    28: 05    41. 22   n/ a      .000
03943>         fname : W_CLAR. 0005
03944>         remark: Total Flows to West Clarke
03945> #*************************************************************************
03946> #     West Clarke Pond 2
03947> #     - Rating curve obtained from Barrhaven South MSS modeling
03948> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
03949> #*************************************************************************
03950> R0005: C00180-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03951>       ROUTE RESERVOI R ->              1. 0 02: W_CLAR          119. 40     10. 597 No_date    28: 05    41. 22   n/ a      .000
03952>                                    out <=  1. 0 01: MS_P2           119. 40      1. 795 No_date    28: 54    41. 22   n/ a      .000
03953>                                overflow <=  1. 0 03: P2- OVF            .00          .000 No_date    0: 00      .00   n/ a      .000
03954>       {MxStoUsed=.2665E+01   m3,  Tot Or Vol =.0000E+00   m3,  N-Or f=      0,  Tot Dur Or f=      0. hrs}
03955> #*************************************************************************
03956> R0005: C00181-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03957>       ADD HYD                          1. 0 02: SN_CE          54118. 36     71. 742 No_date    33: 55    18. 55   n/ a      .000
03958>                                    +   1. 0 02: S: 1- DI          3. 28       . 421 No_date    28: 00    42. 00   n/ a      .000
03959>                                    +   1. 0 02: S: 1- D5          12. 84      1. 500 No_date    28: 01    42. 00   n/ a      .000
03960>                                    +   1. 0 02: MS_P2          119. 40      1. 795 No_date    28: 54    41. 22   n/ a      .000
03961>                                    +   1. 0 02: P2- OVF             .00          .000 No_date    0: 00      .00   n/ a      .000
03962>                                SUM=    1. 0 01: SN_CE          54253. 88     72. 490 No_date    33: 54    18. 61   n/ a      .000
03963> R0005: C00182-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03964>       SAVE HYD                         1. 0 01: SN_CE          54253. 88     72. 490 No_date    33: 54    18. 61   n/ a      .000
03965>         fname : SN_CE. 0005
03966>         remark: Total Flows before Station 5737 on Jock River
03967> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5737
03968> # 2021- 02- 25 add station 5737 before station 5002. Station 5737 was extracted from the HEC- RAS model T: \ PROJ\ 1474- 16\ Des
03969> # JFSA 2021- 03- 02  change the slope to 0. 0175% ( as per Stantec Report 2007) to stabilize the model
03970> R0005: C00183-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03971>       ROUTE CHANNEL            ->      1. 0 02: SN_CE          54253. 88     72. 490 No_date    33: 54    18. 61   n/ a      .000
03972> *       [ RDT= 1. 00]  out <-           1. 0 01: 5737           54253. 88     69. 289 No_date    36: 45    18. 61   n/ a      .000
03973>         [ L/ S/ n=  270. /  . 018/ . 035]
03974>         [ Vmx=  . 686: Dmx=  4. 073]
03975> R0005: C00184-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03976>       ADD HYD                          1. 0 02: 5737           54253. 88     69. 289 No_date    36: 45    18. 61   n/ a      .000
03977>                                    +   1. 0 02: S: 1- DI          21. 67      2. 409 No_date    28: 02    42. 00   n/ a      .000
03978>                                    +   1. 0 02: S: 1- D6          1. 75       . 232 No_date    28: 00    42. 00   n/ a      .000
03979>                                    +   1. 0 02: S: 1- D7          2. 03       . 265 No_date    28: 00    42. 00   n/ a      .000
03980>                                SUM=    1. 0 01: 5002           54279. 33     69. 330 No_date    36: 43    18. 62   n/ a      .000
03981> R0005: C00185-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03982>       SAVE HYD                         1. 0 01: 5002           54279. 33     69. 330 No_date    36: 43    18. 62   n/ a      .000
03983>         fname : 5002. 0005
03984>         remark: Total Flows before Station 5002 on Jock River
03985> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
03986> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5002
03987> # JFSA 2021- 02- 19 Change the slope from 0. 01 % ( as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
03988> # JFSA 2021- 02- 19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
03989> # JFSA 2021- 02- 26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
03990> R0005: C00186-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03991>       ROUTE CHANNEL            ->      1. 0 02: 5002           54279. 33     69. 330 No_date    36: 43    18. 62   n/ a      .000
03992>         [ RDT= 1. 00]  out <-           1. 0 01: N_WCa          54279. 33     69. 338 No_date    36: 38    18. 62   n/ a      .000
03993>         [ L/ S/ n=  245. /  . 095/ . 035]
03994>         [ Vmx=  1. 066: Dmx=  2. 317]
03995> R0005: C00187-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
03996>       ROUTE CHANNEL            ->      1. 0 02: N_WCa          54279. 33     69. 338 No_date    36: 38    18. 62   n/ a      .000
03997>         [ RDT= 1. 00]  out <-           1. 0 01: N_WCb          54279. 33     69. 347 No_date    36: 34    18. 62   n/ a      .000
03998>         [ L/ S/ n=  245. /  . 095/ . 035]
03999>         [ Vmx=  1. 066: Dmx=  2. 317]
04000> R0005: C00188-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04001>       ROUTE CHANNEL            ->      1. 0 02: N_WCb          54279. 33     69. 347 No_date    36: 34    18. 62   n/ a      .000
04002>         [ RDT= 1. 00]  out <-           1. 0 01: N_WC           54279. 33     69. 562 No_date    36: 09    18. 62   n/ a      .000
04003>         [ L/ S/ n=  245. /  . 095/ . 035]
04004>         [ Vmx=  1. 067: Dmx=  2. 317]
04005> #*************************************************************************
04006> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
04007> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
04008> #
04009> R0005: C00189-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04010>       ROUTE CHANNEL            ->      1. 0 02: N_WC           54279. 33     69. 562 No_date    36: 09    18. 62   n/ a      .000
04011>         [ RDT= 1. 00]  out <-           1. 0 01: N_KB           54279. 33     69. 259 No_date    36: 50    18. 62   n/ a      .000
04012>         [ L/ S/ n=  1020. /  . 050/ . 035]
04013>         [ Vmx=  . 944: Dmx=  2. 851]
04014> #*************************************************************************
04015> #     Catchment KEN_BU
04016> #     - To Kennedy- Burnett SWM Facility
04017> #     - Outlets to Fraser- Clarke drain ( north of the Jock)
04018> #     - Medium density residential subdivision
04019> #*************************************************************************
04020> #*************************************************************************
04021> #   Existing Kennedy- Burnett SWM Facility
04022> #     - Rating curve obtained from METHERP
04023> #     - Tributary Drainage Area to Pond = 160 ha
04024> #*************************************************************************
04025> R0005: C00190-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04026>       CONTI NUOUS STANDHYD             1. 0 01: KB- 01A         40. 82      2. 624 No_date    28: 14    20. 08   . 351      .000
04027>         [ XI M=. 10: TI MP=. 40]
04028>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    Fi=  . 00]
04029>         [ Pervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
04030>         [ Impervi ous    area: I Aimp=  . 79: SLPI =. 50: LGI =  522. : MNI =. 013: SCI =    . 0]
04031>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
04032> R0005: C00191-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04033>       COMPUTE DUALHYD                  1. 0 01: KB- 01A         40. 82      2. 624 No_date    28: 14    20. 08   n/ a      .000
04034>         Major System   /               1. 0 02: KB- 01A- MI         .00          .000 No_date    0: 00      .00   n/ a      .000
04035>         Minor System   \               1. 0 03: KB- 01A- MN       40. 82      2. 624 No_date    28: 14    20. 08   n/ a      .000
04036>         [ MJSysSt o=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or f=      0,  Tot Dur Or f=      0. hrs]
04037> R0005: C00192-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04038>       ADD HYD                          1. 0 02: KB- 01A- MI         .00          .000 No_date    0: 00      .00   n/ a      .000
04039>                                    +   1. 0 02: KB- 01A- MN       40. 82      2. 624 No_date    28: 14    20. 08   n/ a      .000
04040>                                SUM=    1. 0 01: KB- 01A         40. 82      2. 624 No_date    28: 14    20. 08   n/ a      .000
04041> R0005: C00193-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04042>       CONTI NUOUS STANDHYD             1. 0 01: KB- 01B         31. 10      1. 779 No_date    28: 08    22. 42   . 393      .000
04043>         [ XI M=. 19: TI MP=. 38]
04044>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    Fi=  . 00]
04045>         [ Pervi ous      area: I Aper= 4. 67: SLPP=  . 42: LGP=  40. : MNP=. 250: SCP=    . 0]
04046>         [ Impervi ous    area: I Aimp=  . 79: SLPI =. 42: LGI =  455. : MNI =. 013: SCI =    . 0]
04047>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
04048> R0005: C00194-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04049>       COMPUTE DUALHYD                  1. 0 01: KB- 01B         31. 10      1. 779 No_date    28: 08    22. 42   n/ a      .000
04050>         Major System   /               1. 0 02: KB- 01B- MI         .00          .000 No_date    0: 00      .00   n/ a      .000
04051>         Minor System   \               1. 0 03: KB- 01B- MN       31. 10      1. 585 No_date    28: 03    22. 52   n/ a      .000
04052>         [ MJSysSt o=. 1530E+03,  Tot Or Vol =. 0000E+00,  N-Or f=      0,  Tot Dur Or f=      0. hrs]
04053> R0005: C00195-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04054>       ADD HYD                          1. 0 02: KB- 01B- MI         .00          .000 No_date    0: 00      .00   n/ a      .000
04055>                                    +   1. 0 02: KB- 01B- MN       31. 10      1. 585 No_date    28: 03    22. 52   n/ a      .000
04056>                                SUM=    1. 0 01: KB- 01B- S        31. 10      1. 585 No_date    28: 03    22. 52   n/ a      .000
04057> R0005: C00196-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04058>       CONTI NUOUS STANDHYD             1. 0 01: KB- 01C         13. 78      1. 235 No_date    28: 05    23. 43   . 410      .000
04059>         [ XI M=. 20: TI MP=. 41]
04060>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    Fi=  . 00]
04061>         [ Pervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
04062>         [ Impervi ous    area: I Aimp=  . 79: SLPI =. 50: LGI =  303. : MNI =. 013: SCI =    . 0]
04063>         [ I aREC mp=   4. 00: I aREC per=    4. 00]
04064> R0005: C00197-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04065>       COMPUTE DUALHYD                  1. 0 01: KB- 01C         13. 78      1. 235 No_date    28: 05    23. 43   n/ a      .000
04066>         Major System   /               1. 0 02: KB- 01C- MI         .00          .000 No_date    0: 00      .00   n/ a      .000
04067>         Minor System   \               1. 0 03: KB- 01C- MN       13. 78      1. 235 No_date    28: 05    23. 43   n/ a      .000
04068>         [ MJSysSt o=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or f=      0,  Tot Dur Or f=      0. hrs]
04069> R0005: C00198-------------DTmi n-I D: NHYD----------AREAha- QPEAKcms- Tpeak Dat e_hh: mm----RVmm R. C.---DWFcms
04070>       ADD HYD                          1. 0 02: KB- 01C- MI         .00          .000 No_date    0: 00      .00   n/ a      .000
04071>                                    +   1. 0 02: KB- 01C- MN       13. 78      1. 235 No_date    28: 05    23. 43   n/ a      .000
04072>                                SUM=    1. 0
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04115>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04116>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04117>        [ I mpervious    area: I Aimp=  . 94: SLPI=4. 75: LGI= 294. : MNI=. 013: SCI=    .0]
04118>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04119> R0005: C00207- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04120>        COMPUTE DUALHYD          1. 0 01: KB- 06          12. 93        2. 190 No_date    28: 00    50. 55   n/ a      .000
04121>        M ajor System    /       1. 0 02: KB- 06- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04122>        M inor System    \       1. 0 03: KB- 06- MN      12. 93        2. 190 No_date    28: 00    50. 55   n/ a      .000
04123>        [ M j Sys t e=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04124> R0005: C00208- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04125>        ADD HYD                  1. 0 02: KB- 06- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04126>                          +      1. 0 01: KB- 06- N       12. 93        2. 190 No_date    28: 00    50. 55   n/ a      .000
04127>                          SUM=   1. 0 01: KB- 06- S       12. 93        2. 190 No_date    28: 00    50. 55   n/ a      .000
04128> R0005: C00209- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04129>        CONTI NUOUS STANDHYD     1. 0 01: KB- 11           4. 03        . 584 No_date    28: 00    41. 88   . 733     .000
04130>        [ XI MP=. 68: TI MP=. 68]
04131>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04132>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04133>        [ I mpervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 164. : MNI=. 013: SCI=    .0]
04134>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04135> R0005: C00210- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04136>        COMPUTE DUALHYD          1. 0 01: KB- 11           4. 03        . 584 No_date    28: 00    41. 88   n/ a      .000
04137>        M ajor System    /       1. 0 02: KB- 11- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04138>        M inor System    \       1. 0 03: KB- 11- MN       4. 03        . 577 No_date    28: 00    41. 89   n/ a      .000
04139>        [ M j Sys t e=. 4277E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04140> R0005: C00211- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04141>        ADD HYD                  1. 0 02: KB- 11- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04142>                          +      1. 0 02: KB- 11- MN       4. 03        . 577 No_date    28: 00    41. 89   n/ a      .000
04143>                          SUM=   1. 0 01: KB- 11- S        4. 03        . 577 No_date    28: 00    41. 89   n/ a      .000
04144> R0005: C00212- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04145>        CONTI NUOUS STANDHYD     1. 0 01: S1               4. 99        . 892 No_date    28: 00    52. 49   . 919     .000
04146>        [ XI MP=. 93: TI MP=. 93]
04147>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04148>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04149>        [ I mpervious    area: I Aimp=  . 57: SLPI=2. 00: LGI= 182. : MNI=. 013: SCI=    .0]
04150>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04151> R0005: C00213- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04152>        CONTI NUOUS STANDHYD     1. 0 01: KB- 15           2. 15        . 321 No_date    28: 00    47. 49   . 831     .000
04153>        [ XI MP=. 79: TI MP=. 79]
04154>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04155>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04156>        [ I mpervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 120. : MNI=. 013: SCI=    .0]
04157>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04158> R0005: C00214- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04159>        ADD HYD                  1. 0 02: KB- 01- A- S    40. 82        2. 624 No_date    28: 14    20. 08   n/ a      .000
04160>                          +      1. 0 02: KB- 01- B- S    31. 10        1. 585 No_date    28: 03    22. 52   n/ a      .000
04161>                          +      1. 0 02: KB- 01- C- S    13. 78        1. 235 No_date    28: 05    23. 43   n/ a      .000
04162>                          +      1. 0 02: KB- 03- S       84. 78        5. 270 No_date    28: 03    23. 12   n/ a      .000
04163>                          +      1. 0 02: KB- 04- S        6. 95         . 503 No_date    27: 48    49. 78   n/ a      .000
04164>                          +      1. 0 02: KB- 05           5. 19         . 855 No_date    28: 00    52. 49   n/ a      .000
04165>                          +      1. 0 02: KB- 06- S       12. 93        2. 190 No_date    28: 00    50. 55   n/ a      .000
04166>                          +      1. 0 02: KB- 11- S        4. 03         . 577 No_date    28: 00    41. 89   n/ a      .000
04167>                          +      1. 0 02: KB- 15           2. 15         . 321 No_date    28: 00    47. 49   n/ a      .000
04168>                          +      1. 0 02: KB- S1           4. 99         . 892 No_date    28: 00    52. 49   n/ a      .000
04169>                          SUM=   1. 0 01: KB- P1         206. 72       14. 564 No_date    28: 02    27. 13   n/ a      .000
04170> R0005: C00215- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04171>        ROUTE RESERVOIR - >      1. 0 02: KB- P1R        206. 72       14. 564 No_date    28: 02    27. 13   n/ a      .000
04172>                          out <=  1. 0 01: KB- P1R        206. 72       11. 746 No_date    28: 15    27. 13   n/ a      .000
04173>                          overflow <=  1. 0 03: KB- P1ovf    .00         .000 No_date    0: 00      .00   n/ a      .000
04174>        [ M i St ole d=. 5868E+00  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04175> R0005: C00216- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04176>        ADD HYD                  1. 0 02: KB- P1R        206. 72       11. 746 No_date    28: 15    27. 13   n/ a      .000
04177>                          +      1. 0 02: KB- P1ovf         .00         .000 No_date    0: 00      .00   n/ a      .000
04178>                          SUM=   1. 0 01: KB- Pond1      206. 72       11. 746 No_date    28: 15    27. 13   n/ a      .000
04179> R0005: C00217- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04180>        SAVE HYD                 1. 0 01: KB- Pond1      206. 72       11. 746 No_date    28: 15    27. 13   n/ a      .000
04181>        f name : KB- Pond1. 0005
04182>        r emar k: Tot al  Flows at  KB f i r st  pond
04183> R0005: C00218- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04184>        CONTI NUOUS STANDHYD     1. 0 01: KB- 07           10. 86       1. 770 No_date    28: 00    50. 11   . 877     .000
04185>        [ XI MP=. 86: TI MP=. 86]
04186>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04187>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04188>        [ I mpervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 269. : MNI=. 013: SCI=    .0]
04189>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04190> R0005: C00219- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04191>        COMPUTE DUALHYD          1. 0 01: KB- 07           10. 86       1. 770 No_date    28: 00    50. 11   n/ a      .000
04192>        M ajor System    /       1. 0 02: KB- 07- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04193>        M inor System    \       1. 0 03: KB- 07- MN       10. 86       1. 770 No_date    28: 00    50. 11   n/ a      .000
04194>        [ M j Sys t e=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04195> R0005: C00220- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04196>        ADD HYD                  1. 0 02: KB- 07- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04197>                          +      1. 0 02: KB- 07- MN       10. 86       1. 770 No_date    28: 00    50. 11   n/ a      .000
04198>                          SUM=   1. 0 01: KB- 07- S        10. 86       1. 770 No_date    28: 00    50. 11   n/ a      .000
04199> R0005: C00221- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04200>        CONTI NUOUS STANDHYD     1. 0 01: KB- 08           6. 61        . 900 No_date    28: 00    40. 32   . 706     .000
04201>        [ XI MP=. 64: TI MP=. 64]
04202>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04203>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04204>        [ I mpervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=    .0]
04205>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04206> R0005: C00222- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04207>        COMPUTE DUALHYD          1. 0 01: KB- 08           6. 61        . 900 No_date    28: 00    40. 32   n/ a      .000
04208>        M ajor System    /       1. 0 02: KB- 08- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04209>        M inor System    \       1. 0 03: KB- 08- MN       6. 61        . 900 No_date    28: 00    40. 32   n/ a      .000
04210>        [ M j Sys t e=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04211> R0005: C00223- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04212>        ADD HYD                  1. 0 02: KB- 08- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04213>                          +      1. 0 02: KB- 08- MN       6. 61        . 900 No_date    28: 00    40. 32   n/ a      .000
04214>                          SUM=   1. 0 01: KB- 08- S        6. 61        . 900 No_date    28: 00    40. 32   n/ a      .000
04215> R0005: C00224- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04216>        CONTI NUOUS STANDHYD     1. 0 01: KB- 09           2. 60        . 448 No_date    28: 00    49. 44   . 865     .000
04217>        [ XI MP=. 86: TI MP=. 86]
04218>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04219>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04220>        [ I mpervious    area: I Aimp=  1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=    .0]
04221>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04222> R0005: C00225- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04223>        CONTI NUOUS STANDHYD     1. 0 01: KB- 10_1         2. 37        . 409 No_date    28: 00    49. 44   . 865     .000
04224>        [ XI MP=. 86: TI MP=. 86]
04225>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04226>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04227>        [ I mpervious    area: I Aimp=  1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=    .0]
04228>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04229> R0005: C00226- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04230>        CONTI NUOUS STANDHYD     1. 0 01: KB- 10_2         1. 14        . 199 No_date    28: 00    49. 44   . 865     .000
04231>        [ XI MP=. 86: TI MP=. 86]
04232>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04233>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04234>        [ I mpervious    area: I Aimp=  1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=    .0]
04235>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04236> R0005: C00227- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04237>        CONTI NUOUS STANDHYD     1. 0 01: KB- 12           4. 86        . 777 No_date    28: 00    46. 75   . 818     .000
04238>        [ XI MP=. 79: TI MP=. 79]
04239>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04240>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04241>        [ I mpervious    area: I Aimp=  1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=    .0]
04242>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04243> R0005: C00228- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04244>        COMPUTE DUALHYD          1. 0 01: KB- 12           4. 86        . 777 No_date    28: 00    46. 75   n/ a      .000
04245>        M ajor System    /       1. 0 02: KB- 12- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04246>        M inor System    \       1. 0 03: KB- 12- MN       4. 86        . 777 No_date    28: 00    46. 75   n/ a      .000
04247>        [ M j Sys t e=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04248> R0005: C00229- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04249>        ADD HYD                  1. 0 02: KB- 12- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04250>                          +      1. 0 02: KB- 12- MN       4. 86        . 777 No_date    28: 00    46. 75   n/ a      .000
04251>                          SUM=   1. 0 01: KB- 12- S        4. 86        . 777 No_date    28: 00    46. 75   n/ a      .000
04252> R0005: C00230- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04253>        CONTI NUOUS STANDHYD     1. 0 01: KB- 13           10. 19       1. 364 No_date    28: 00    40. 32   . 706     .000
04254>        [ XI MP=. 64: TI MP=. 64]
04255>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04256>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04257>        [ I mpervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=    .0]
04258>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04259> R0005: C00231- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04260>        COMPUTE DUALHYD          1. 0 01: KB- 13           10. 19       1. 364 No_date    28: 00    40. 32   n/ a      .000
04261>        M ajor System    /       1. 0 02: KB- 13- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04262>        M inor System    \       1. 0 03: KB- 13- MN       10. 19       1. 364 No_date    28: 00    40. 32   n/ a      .000
04263>        [ M j Sys t e=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04264> R0005: C00232- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04265>        ADD HYD                  1. 0 02: KB- 13- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04266>                          +      1. 0 02: KB- 13- MN       10. 19       1. 364 No_date    28: 00    40. 32   n/ a      .000
04267>                          SUM=   1. 0 01: KB- 13- S        10. 19       1. 364 No_date    28: 00    40. 32   n/ a      .000
04268> R0005: C00233- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04269>        CONTI NUOUS STANDHYD     1. 0 01: KB- 14           5. 47         . 756 No_date    28: 00    40. 32   . 706     .000
04270>        [ XI MP=. 64: TI MP=. 64]
04271>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04272>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04273>        [ I mpervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=    .0]
04274>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04275> R0005: C00234- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04276>        COMPUTE DUALHYD          1. 0 01: KB- 14           5. 47         . 756 No_date    28: 00    40. 32   n/ a      .000
04277>        M ajor System    /       1. 0 02: KB- 14- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04278>        M inor System    \       1. 0 03: KB- 14- MN       5. 47         . 756 No_date    28: 00    40. 32   n/ a      .000
04279>        [ M j Sys t e=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04280> R0005: C00235- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04281>        ADD HYD                  1. 0 02: KB- 14- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04282>                          +      1. 0 02: KB- 14- MN       5. 47         . 756 No_date    28: 00    40. 32   n/ a      .000
04283>                          SUM=   1. 0 01: KB- 14- S        5. 47         . 756 No_date    28: 00    40. 32   n/ a      .000
04284> R0005: C00236- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04285>        CONTI NUOUS STANDHYD     1. 0 01: KB- 16_2         3. 42        . 462 No_date    28: 01    43. 88   . 768     .000
04286>        [ XI MP=. 71: TI MP=. 71]
04287>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04288>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04289>        [ I mpervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 151. : MNI=. 013: SCI=    .0]
04290>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04291> R0005: C00237- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04292>        ADD HYD                  1. 0 02: KB- Pond1        206. 72       11. 746 No_date    28: 15    27. 13   n/ a      .000
04293>                          +      1. 0 02: KB- 07- S        10. 86        1. 770 No_date    28: 00    50. 11   n/ a      .000
04294>                          +      1. 0 02: KB- 08- S         6. 61         . 900 No_date    28: 00    40. 32   n/ a      .000
04295>                          +      1. 0 02: KB- 09           2. 60         . 448 No_date    28: 00    49. 44   n/ a      .000
04296>                          +      1. 0 02: KB- 10_1         2. 37         . 409 No_date    28: 00    49. 43   n/ a      .000
04297>                          +      1. 0 02: KB- 10_2         1. 14         . 199 No_date    28: 00    49. 44   n/ a      .000
04298>                          +      1. 0 02: KB- 12- S        4. 86         . 777 No_date    28: 00    46. 75   n/ a      .000
04299>                          +      1. 0 02: KB- 13- S        10. 19        1. 364 No_date    28: 00    40. 32   n/ a      .000
04300>                          +      1. 0 02: KB- 14- S        5. 47         . 756 No_date    28: 00    40. 32   n/ a      .000
04301>                          +      1. 0 02: KB- 16_2         3. 42         . 462 No_date    28: 01    43. 88   n/ a      .000
04302>                          SUM=   1. 0 01: KB- P2          254. 24       16. 750 No_date    28: 01    30. 40   n/ a      .000
04303> R0005: C00238- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04304>        ROUTE RESERVOIR - >      1. 0 02: KB- P2         254. 24       16. 750 No_date    28: 01    30. 40   n/ a      .000
04305>                          out <=  1. 0 01: KB- P2R        254. 24       13. 525 No_date    28: 14    30. 40   n/ a      .000
04306>                          overflow <=  1. 0 03: KB- P2ovf    .00         .000 No_date    0: 00      .00   n/ a      .000
04307>        [ M i St ole d=. 6552E+00  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04308> R0005: C00239- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04309>        ADD HYD                  1. 0 02: KB- P2R        254. 24       13. 525 No_date    28: 14    30. 40   n/ a      .000
04310>                          +      1. 0 02: KB- P2ovf         .00         .000 No_date    0: 00      .00   n/ a      .000
04311>                          SUM=   1. 0 01: KB- Pond2      254. 24       13. 525 No_date    28: 14    30. 40   n/ a      .000
04312> R0005: C00240- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04313>        SAVE HYD                 1. 0 01: KB- Pond2      254. 24       13. 525 No_date    28: 14    30. 40   n/ a      .000
04314>        f name : KB- Pond2. 0005
04315>        r emar k: Tot al  Flows at  KB second pond
04316> R0005: C00241- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04317>        CONTI NUOUS STANDHYD     1. 0 01: KB- 16_1         2. 80        . 398 No_date    28: 01    45. 69   . 800     .000
04318>        [ XI MP=. 75: TI MP=. 75]
04319>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04320>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04321>        [ I mpervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 137. : MNI=. 013: SCI=    .0]
04322>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04323> R0005: C00242- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04324>        ADD HYD                  1. 0 02: KB- Pond2      254. 24       13. 525 No_date    28: 14    30. 40   n/ a      .000
04325>                          +      1. 0 02: KB- 16_1         2. 80        . 398 No_date    28: 01    45. 69   n/ a      .000
04326>                          SUM=   1. 0 01: KB- P3         257. 04       13. 655 No_date    28: 13    30. 57   n/ a      .000
04327> R0005: C00243- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04328>        ROUTE RESERVOIR - >      1. 0 02: KB- P3         257. 04       13. 655 No_date    28: 13    30. 57   n/ a      .000
04329>                          out <=  1. 0 01: KB- P3R         14. 18         . 051 No_date    17: 43    30. 57   n/ a      .000
04330>                          overflow <=  1. 0 03: KB- P3ovf  242. 86       13. 603 No_date    28: 13    30. 57   n/ a      .000
04331>        [ M i St ole d=. 1998E- 02  m3,  Tot Or f Vol =. 7424E+01  m3,  N- Or f =     2,  Tot Dur Or f =     23. hr s]
04332> R0005: C00244- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04333>        ADD HYD                  1. 0 02: KB- P3R         14. 18         . 051 No_date    17: 43    30. 57   n/ a      .000
04334>                          +      1. 0 02: KB- P3ovf      242. 86       13. 603 No_date    28: 13    30. 57   n/ a      .000
04335>                          SUM=   1. 0 01: KB- Pond3      257. 04       13. 654 No_date    28: 13    30. 57   n/ a      .000
04336> R0005: C00245- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04337>        SAVE HYD                 1. 0 01: KB- Pond3      257. 04       13. 654 No_date    28: 13    30. 57   n/ a      .000
04338>        f name : KB- Pond3. 0005
04339>        r emar k: Tot al  Flows at  KB t hi r d pond
04340> ##########################################################################################
04341> #    EXI STI NG / PROPOSED Subcat chments ( Kennedy- Burnett  SWM Facility ( 118080) ,  SWMModeling Approach,  NOVATECH Report Ju
04342> #    - TO FRASER- CLARKE DRAI N
04343> ##########################################################################################
04344> R0005: C00246- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04345>        CONTI NUOUS STANDHYD     1. 0 01: FC- 01           8. 03        . 865 No_date    28: 01    32. 39   . 567     .000
04346>        [ XI MP=. 47: TI MP=. 47]
04347>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04348>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04349>        [ I mpervious    area: I Aimp=  . 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=    .0]
04350>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04351> R0005: C00247- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04352>        COMPUTE DUALHYD          1. 0 01: FC- 01           8. 03        . 865 No_date    28: 01    32. 39   n/ a      .000
04353>        M ajor System    /       1. 0 02: FC- 01- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04354>        M inor System    \       1. 0 03: FC- 01- MN       8. 03        . 756 No_date    27: 58    32. 40   n/ a      .000
04355>        [ M j Sys t e=. 2912E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04356> R0005: C00248- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04357>        ADD HYD                  1. 0 02: FC- 01- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04358>                          +      1. 0 02: FC- 01- MN       8. 03        . 756 No_date    27: 58    32. 40   n/ a      .000
04359>                          SUM=   1. 0 01: FC- 01- S        8. 03        . 756 No_date    27: 58    32. 40   n/ a      .000
04360> R0005: C00249- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04361>        CONTI NUOUS STANDHYD     1. 0 01: FC- 02           16. 05       2. 547 No_date    28: 01    52. 49   . 919     .000
04362>        [ XI MP=. 93: TI MP=. 93]
04363>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04364>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04365>        [ I mpervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=    .0]
04366>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04367> R0005: C00250- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04368>        COMPUTE DUALHYD          1. 0 01: FC- 02           16. 05       2. 547 No_date    28: 01    52. 49   n/ a      .000
04369>        M ajor System    /       1. 0 02: FC- 02- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04370>        M inor System    \       1. 0 03: FC- 02- MN       16. 05       1. 159 No_date    27: 47    52. 68   n/ a      .000
04371>        [ M j Sys t e=. 1011E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04372> R0005: C00251- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04373>        ADD HYD                  1. 0 02: FC- 02- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04374>                          +      1. 0 02: FC- 02- MN       16. 05       1. 159 No_date    27: 47    52. 68   n/ a      .000
04375>                          SUM=   1. 0 01: FC- 02- S        16. 05       1. 159 No_date    27: 47    52. 68   n/ a      .000
04376> R0005: C00252- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04377>        CONTI NUOUS STANDHYD     1. 0 01: FC- 03           7. 37        . 956 No_date    28: 01    39. 82   . 697     .000
04378>        [ XI MP=. 64: TI MP=. 64]
04379>        [ Hor ton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= .00]
04380>        [ P ervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
04381>        [ I mpervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=    .0]
04382>        [ I aREC I mp=   4. 00: I aREC per=    4. 00]
04383> R0005: C00253- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04384>        COMPUTE DUALHYD          1. 0 01: FC- 03           7. 37        . 956 No_date    28: 01    39. 82   n/ a      .000
04385>        M ajor System    /       1. 0 02: FC- 03- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04386>        M inor System    \       1. 0 03: FC- 03- MN       7. 37        . 358 No_date    27: 45    39. 85   n/ a      .000
04387>        [ M j Sys t e=. 4806E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hr s]
04388> R0005: C00254- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04389>        ADD HYD                  1. 0 02: FC- 03- M        .00         .000 No_date    0: 00      .00   n/ a      .000
04390>                          +      1. 0 02: FC- 03- MN       7. 37        . 358 No_date    27: 45    39. 85   n/ a      .000
04391>                          SUM=   1. 0 01: FC- 03- S        7. 37        . 358 No_date    27: 45    39. 85   n/ a      .000
04392> R0005: C00255- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- ---- RVmm R. C- ---- DWFcms
04393>        CONTI NUOUS STANDHYD     1. 0 01: FC- 04           12. 87       1. 600 No_date    28: 01    39. 82   . 697     .000
04394>        [ XI MP=. 64: TI MP=. 
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04489> #
04490> R0005:C00270-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04491>       ROUTE CHANNEL    ->      1.0 02:4241      54658.44    69.643 No_date    36:50    18.70  n/a      .000
04492>       [RDT= 1.00] out<-        1.0 01:4241-out  54658.44    69.650 No_date    36:38    18.70  n/a      .000
04493>       [L/S/n= 294./ .109/.035]
04494>       [Vmx= 1.095 Dmx= 1.826]
04495> R0005:C00271-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04496>       ADD HYD                  1.0 02:4241-out  54658.44    69.650 No_date    36:38    18.70  n/a      .000
04497>                          +     1.0 02:FC-04-S       12.87      .741 No_date    27:48    39.85  n/a      .000
04498>                          +     1.0 02:JR-01-S        8.24      .563 No_date    27:50    40.05  n/a      .000
04499>                          +     1.0 02:JR-02-S        1.59      .153 No_date    27:53    40.12  n/a      .000
04500>                    SUM=        1.0 01:SN_KB     54681.13    69.678 No_date    36:38    18.71  n/a      .000
04501> R0005:C00272-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04502>       SAVE HYD                 1.0 01:SN_KB     54681.13    69.678 No_date    36:38    18.71  n/a      .000
04503>       fname : SN_KB 0005
04504>       remark: HYD_COMMENT=["Total Flows before Station 3633]
04505> # Hydrograph from Station 3633 to Node Todd
04506> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
04507> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
04508> #
04509> R0005:C00273-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04510>       ROUTE CHANNEL    ->      1.0 02:SN_KB     54681.13    69.678 No_date    36:38    18.71  n/a      .000
04511>       [RDT= 1.00] out<-        1.0 01:N_TO      54681.13    69.666 No_date    36:51    18.71  n/a      .000
04512>       [L/S/n= 608./ .247/.035]
04513>       [Vmx= 1.446 Dmx= 1.371]
04514> #*******************************************************************************
04515> #     Catchment Greenbank
04516> #     - To Greenbank Drain (south of the Jock)
04517> #     - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
04518> #     - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
04519> #*******************************************************************************
04520> R0005:C00274-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04521>       CONTINUOUS STANDHYD      1.0 01:Greenbank     36.60     3.925 No_date    28:02    42.59  .745      .000
04522>       [XI M=. 64: TI M=. 68]
04523>       [LOSS= 2 : CN= 77.0]
04524>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04525>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=    .0]
04526>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04527>       [SMN= 31. 15: SMXx=207. 66: SK=  .010]
04528> R0005:C00275-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04529>       ROUTE RESERVOIR ->       1.0 02:Greenbank     36.60     3.925 No_date    28:02    42.59  n/a      .000
04530>                          out <=  1.0 01:GreenBl_MN    36.60      .811 No_date    28:35    42.58  n/a      .000
04531>                    overflow <=   1.0 03:GreenBl_MI      .00      .000 No_date     0:00      .00  n/a      .000
04532>       [MxStOlsKed=. 7695E+00   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04533> R0005:C00276-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04534>       ADD HYD                  1.0 02:N_TO      54681.13    69.666 No_date    36:51    18.71  n/a      .000
04535>                          +     1.0 02:GreenBl_MI      .00      .000 No_date     0:00      .00  n/a      .000
04536>                          +     1.0 02:GreenBl_MN    36.60      .811 No_date    28:35    42.58  n/a      .000
04537>                    SUM=        1.0 01:GreenBl   54717.73    69.773 No_date    36:51    18.73  n/a      .000
04538> R0005:C00277-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04539>       SAVE HYD                 1.0 01:GreenBl   54717.73    69.773 No_date    36:51    18.73  n/a      .000
04540>       fname : GreenBl 0005
04541>       remark: Total Flows at Greenbank Drain
04542> #*******************************************************************************
04543> #     Catchment TODD
04544> #     - To Todd Drain (south of the Jock)
04545> #     - Subdivision with 43% imp. as per Barrhaven South MSS
04546> #     - 2020-11-30 increase imp. based on P598(04)-11
04547> #     - 2020-11-30 update TODD Tributary Drainage Area to = 146.015 ha based on P598(04)-11
04548> #     - 2020-11-30 split TODD Drainage Area to MINOR, MINOR, POND and ALL
04549> #*******************************************************************************
04550> #     - JFSA 2021-01-19 add "TODD_MN" as part of Clarke("W_CLAR_M") and remove it from Todd
04551> R0005:C00278-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04552>       CONTINUOUS STANDHYD      1.0 01:TODD_MN2      2.10      .239 No_date    28:00    38.41  .672      .000
04553>       [XI M=. 53: TI M=. 57]
04554>       [LOSS= 2 : CN= 77.0]
04555>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04556>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=    .0]
04557>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04558>       [SMN= 31. 15: SMXx=207. 66: SK=  .010]
04559> R0005:C00279-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04560>       CONTINUOUS STANDHYD      1.0 01:TODD_MN3       .12      .014 No_date    28:00    38.39  .672      .000
04561>       [XI M=. 53: TI M=. 57]
04562>       [LOSS= 2 : CN= 77.0]
04563>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04564>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=    .0]
04565>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04566>       [SMN= 31. 15: SMXx=207. 66: SK=  .010]
04567> R0005:C00280-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04568>       CONTINUOUS STANDHYD      1.0 01:TODD_MI       30.23     2.959 No_date    28:02    39.47  .691      .000
04569>       [XI M=. 52: TI M=. 64]
04570>       [LOSS= 2 : CN= 77.0]
04571>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04572>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=    .0]
04573>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04574>       [SMN= 31. 15: SMXx=207. 66: SK=  .010]
04575> R0005:C00281-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04576>       CONTINUOUS STANDHYD      1.0 01:TODD_ALL      112.91     9.069 No_date    28:05    38.19  .669      .000
04577>       [XI M=. 52: TI M=. 57]
04578>       [LOSS= 2 : CN= 77.0]
04579>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04580>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=    .0]
04581>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04582>       [SMN= 31. 15: SMXx=207. 66: SK=  .010]
04583> R0005:C00282-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04584>       CONTINUOUS STANDHYD      1.0 01:TODD_P         3.06      .385 No_date    28:00    41.58  .728      .000
04585>       [XI M=. 63: TI M=. 63]
04586>       [LOSS= 2 : CN= 77.0]
04587>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04588>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 143. : MNI=. 013: SCI=    .0]
04589>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04590>       [SMN= 31. 15: SMXx=207. 66: SK=  .010]
04591> # 5- Year + 12% Capture
04592> R0005:C00283-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04593>       ROUTE RESERVOIR ->       1.0 02:TODD_MI       30.23     2.959 No_date    28:02    39.47  n/a      .000
04594> *                      out <=  1.0 01:TODD_MIn      30.23     2.959 No_date    28:02    39.47  n/a      .000
04595>                    overflow <=   1.0 03:TODD_MIj        .00      .000 No_date     0:00      .00  n/a      .000
04596>       [MxStOlsKed=. 8948E-04   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04597> # 5- Year + 12% Capture
04598> R0005:C00284-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04599>       ROUTE RESERVOIR ->       1.0 02:TODD_MN2      2.10      .239 No_date    28:00    38.41  n/a      .000
04600>                          out <=  1.0 01:TODD_MN2n     2.10      .238 No_date    28:00    38.41  n/a      .000
04601>                    overflow <=   1.0 03:TODD_MN2j       .00      .000 No_date     0:00      .00  n/a      .000
04602>       [MxStOlsKed=. 8965E-04   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04603> R0005:C00285-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04604>       ROUTE RESERVOIR ->       1.0 02:TODD_MN3       .12      .014 No_date    28:00    38.39  n/a      .000
04605>                          out <=  1.0 01:TODD_MN3n      .12      .014 No_date    28:00    38.39  n/a      .000
04606>                    overflow <=   1.0 03:TODD_MN3j       .00      .000 No_date     0:00      .00  n/a      .000
04607>       [MxStOlsKed=. 6651E-04   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04608> R0005:C00286-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04609>       CONTINUOUS STANDHYD      1.0 01:A2            25.50     1.991 No_date    28:03    34.66  .607      .000
04610>       [XI M=. 42: TI M=. 52]
04611>       [LOSS= 2 : CN= 75.0]
04612>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04613>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 566. : MNI=. 013: SCI=    .0]
04614>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04615>       [SMN= 33. 81: SMXx=225. 43: SK=  .010]
04616> R0005:C00287-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04617>       COMPUTE DUALHYD          1.0 01:A2            25.50     1.991 No_date    28:03    34.66  n/a      .000
04618>       Major System   /         1.0 02:A2-MI           .00      .000 No_date     0:00      .00  n/a      .000
04619>       Minor System   \         1.0 03:A2-MN         25.50     1.818 No_date    28:09    34.70  n/a      .000
04620>       [MjSysSto=. 5163E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04621> R0005:C00288-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04622>       ADD HYD                  1.0 02:N_TO2         2.10      .238 No_date    28:00    38.41  n/a      .000
04623>                          +     1.0 02:TODD_MN3n      .12      .014 No_date    28:00    38.39  n/a      .000
04624>                          +     1.0 02:TODD_MIj       .00      .000 No_date     0:00      .00  n/a      .000
04625>                          +     1.0 02:TODD_P        3.06      .385 No_date    28:00    41.58  n/a      .000
04626>                          +     1.0 02:TODD_ALL    112.91     9.069 No_date    28:05    38.19  n/a      .000
04627>                          +     1.0 02:W_CLAR_MIn    1.77      .192 No_date    28:00    37.36  n/a      .000
04628>                    SUM=        1.0 01:TODD      119.95     9.538 No_date    28:04    38.27  n/a      .000
04629> R0005:C00289-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04630>       SAVE HYD                 1.0 01:TODD      119.95     9.538 No_date    28:04    38.27  n/a      .000
04631>       fname : TODD 0005
04632>       remark: Total Flows at Todd Drain
04633> #*******************************************************************************
04634> #     Todd Pond 3
04635> #     - Rating curve obtained from Barrhaven South MSS modeling
04636> #     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
04637> #*******************************************************************************
04638> R0005:C00290-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04639>       ROUTE RESERVOIR ->       1.0 02:TODD      119.95     9.538 No_date    28:04    38.27  n/a      .000
04640>                          out <=  1.0 01:MS_P3     119.95     3.765 No_date    28:29    38.27  n/a      .000
04641>                    overflow <=   1.0 03:P3-OVF        .00      .000 No_date     0:00      .00  n/a      .000
04642>       [MxStOlsKed=. 2351E+01   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04643> R0005:C00291-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04644>       ADD HYD                  1.0 02:GreenBl   54717.73    69.773 No_date    36:51    18.73  n/a      .000
04645>                          +     1.0 02:MS_P3     119.95     3.765 No_date    28:29    38.27  n/a      .000
04646>                          +     1.0 02:P3-OVF        .00      .000 No_date     0:00      .00  n/a      .000
04647>                          +     1.0 02:TODD_MNj      .00      .000 No_date     0:00      .00  n/a      .000
04648>                          +     1.0 02:A2-MI         .00      .000 No_date     0:00      .00  n/a      .000
04649>                    SUM=        1.0 01:SN_TO     54837.69    69.979 No_date    36:50    18.77  n/a      .000
04650> R0005:C00292-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04651>       SAVE HYD                 1.0 01:SN_TO     54837.69    69.979 No_date    36:50    18.77  n/a      .000
04652>       fname : SN_TO 0005
04653>       remark: Total Flows at Todd Drain
04654> #
04655> # Hydrograph from Todd Drain routed to Corrigan Drain
04656> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
04657> # 2021-02-19 Change the slope from 0.033 %(as per Stantec Report 2007) to 0.05 % so the model will be more stable and g
04658> R0005:C00293-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04659>       ROUTE CHANNEL    ->      1.0 02:SN_TO     54837.69    69.979 No_date    36:50    18.77  n/a      .000
04660> *     [RDT= 1.00] out<-        1.0 01:N_TO      54837.69    69.906 No_date    37:02    18.77  n/a      .000
04661>       [L/S/n= 280./ .050/.045]
04662>       [Vmx=  .826: Dmx= 2. 561]
04663> R0005:C00294-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04664>       SAVE HYD                 1.0 01:N_TO      54837.69    69.906 No_date    37:02    18.77  n/a      .000
04665>       fname : N_TO 0005
04666>       remark: Total inflows at Station 2462
04667> #*******************************************************************************
04668> #     Catchment CORRIG
04669> #     - To Corrigan Drain (south of the Jock)
04670> #     - Primarily Developed (medium density)
04671> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
04672> #*******************************************************************************
04673> R0005:C00295-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04674>       CONTINUOUS STANDHYD      1.0 01:corr1         15.87     1.806 No_date    28:01    41.58  .728      .000
04675>       [XI M=. 63: TI M=. 63]
04676>       [LOSS= 2 : CN= 77.0]
04677>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04678>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 325. : MNI=. 013: SCI=    .0]
04679>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04680>       [SMN= 31. 15: SMXx=207. 66: SK=  .010]
04681> R0005:C00296-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04682>       COMPUTE DUALHYD          1.0 01:corr1         15.87     1.806 No_date    28:01    41.58  n/a      .000
04683>       Major System   /         1.0 02:corr1-MI        .00      .000 No_date     0:00      .00  n/a      .000
04684>       Minor System   \         1.0 03:corr1-MN      15.87     1.806 No_date    28:01    41.58  n/a      .000
04685>       [MjSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04686> R0005:C00297-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04687>       CONTINUOUS NASHYD        1.0 01:corr2         12.47      .161 No_date    29:11    21.69  .380      .000
04688>       [CN= 77.0:  N= 3.00:  Tp=  1.10]
04689>       [IaREC=  4. 00:  SMN=  31. 15:  SMXx=207. 66:  SK=  .010]
04690>       [InterEventTim=   12. 00]
04691> R0005:C00298-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04692>       CONTINUOUS STANDHYD      1.0 01:Al-Corrig     15.75     1.357 No_date    28:02    34.66  .607      .000
04693>       [XI M=. 42: TI M=. 52]
04694>       [LOSS= 2 : CN= 75.0]
04695>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04696>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 324. : MNI=. 013: SCI=    .0]
04697>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04698>       [SMN= 33. 81: SMXx=225. 43: SK=  .010]
04699> R0005:C00299-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04700>       COMPUTE DUALHYD          1.0 01:Al-Corrig     15.75     1.357 No_date    28:02    34.66  n/a      .000
04701>       Major System   /         1.0 02:Al-MI           .00      .000 No_date     0:00      .00  n/a      .000
04702>       Minor System   \         1.0 03:Al-MN         15.75     1.357 No_date    28:02    34.66  n/a      .000
04703>       [MjSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04704> R0005:C00300-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04705>       CONTINUOUS NASHYD        1.0 01:B1             2.77      .055 No_date    28:09    13.56  .237      .000
04706>       [CN= 56.0:  N= 3.00:  Tp=  .23]
04707>       [IaREC=  4. 00:  SMN=  79. 69:  SMXx=531. 24:  SK=  .010]
04708>       [InterEventTim=   12. 00]
04709> R0005:C00301-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04710>       CONTINUOUS STANDHYD      1.0 01:A4            1.27      .153 No_date    28:00    42.00  .735      .000
04711>       [XI M=. 65: TI M=. 65]
04712>       [LOSS= 2 : CN= 75.0]
04713>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04714>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  253. : MNI=. 013: SCI=    .0]
04715>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04716>       [SMN= 33. 81: SMXx=225. 43: SK=  .010]
04717> R0005:C00302-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04718>       COMPUTE DUALHYD          1.0 01:A4            1.27      .153 No_date    28:00    42.00  n/a      .000
04719>       Major System   /         1.0 02:A4-MI           .00      .000 No_date     0:00      .00  n/a      .000
04720>       Minor System   \         1.0 03:A4-MN         1.27      .153 No_date    28:00    42.00  n/a      .000
04721>       [MjSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04722> R0005:C00303-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04723>       ADD HYD                  1.0 01:A1-MI           .00      .000 No_date     0:00      .00  n/a      .000
04724>                          +     1.0 02:A1-MN         15.75     1.357 No_date    28:02    34.66  n/a      .000
04725>                          +     1.0 02:corr1-MI        .00      .000 No_date     0:00      .00  n/a      .000
04726>                          +     1.0 02:corr1-MN      15.87     1.806 No_date    28:01    41.58  n/a      .000
04727>                          +     1.0 02:corr2         12.47      .161 No_date    29:11    21.69  n/a      .000
04728>                          +     1.0 02:B1             2.77      .055 No_date    28:09    13.56  n/a      .000
04729>                          +     1.0 02:A4-MN          1.27      .153 No_date    28:00    42.00  n/a      .000
04730>                    SUM=        1.0 01:MH01          48.13     3.389 No_date    28:01    32.56  n/a      .000
04731> R0005:C00304-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04732>       SAVE HYD                 1.0 01:MH01          48.13     3.389 No_date    28:01    32.56  n/a      .000
04733>       fname : MH01 0005
04734>       remark: Total Flows at MH01
04735> R0005:C00305-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04736>       ROUTE PIPE       ->      1.0 02:MH01          48.13     3.389 No_date    28:01    32.56  n/a      .000
04737> *     [RDT= 1.00] out<-        1.0 01:101-102       48.13     3.277 No_date    28:03    32.56  n/a      .000
04738>       [L/S/n= 368./ .540/.013]
04739>       [Vmx= 3. 010: Dmx= 1. 049]
04740>       [Di n= 1. 05: Dused= 1. 28]
04741> R0005:C00306-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04742>       ADD HYD                  1.0 02:A2-MN         25.50     1.818 No_date    28:00    34.70  n/a      .000
04743>                          +     1.0 02:101-102       48.13     3.277 No_date    28:03    32.56  n/a      .000
04744>                    SUM=        1.0 01:MH02          73.63     5.095 No_date    28:03    33.30  n/a      .000
04745> R0005:C00307-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04746>       SAVE HYD                 1.0 01:MH02          73.63     5.095 No_date    28:03    33.30  n/a      .000
04747>       fname : MH02 0005
04748>       remark: Total Flows at MH02
04749> R0005:C00308-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04750>       CONTINUOUS STANDHYD      1.0 01:AS            1.60      .202 No_date    28:01    44.32  .776      .000
04751>       [XI M=. 71: TI M=. 71]
04752>       [LOSS= 2 : CN= 75.0]
04753>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04754>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 300. : MNI=. 013: SCI=    .0]
04755>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04756>       [SMN= 33. 81: SMXx=225. 43: SK=  .010]
04757> R0005:C00309-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04758>       ADD HYD                  1.0 02:AS-MI           .00      .000 No_date     0:00      .00  n/a      .000
04759>                          +     1.0 02:AS            1.60      .202 No_date    28:01    44.32  n/a      .000
04760>                    SUM=        1.0 01:AST           1.60      .202 No_date    28:01    44.32  n/a      .000
04761> R0005:C00310-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04762>       COMPUTE DUALHYD          1.0 01:AST           1.60      .202 No_date    28:01    44.32  n/a      .000
04763>       Major System   /         1.0 02:AS-MI           .00      .000 No_date     0:00      .00  n/a      .000
04764>       Minor System   \         1.0 03:AS-MN         1.60      .202 No_date    28:01    44.32  n/a      .000
04765>       [MjSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04766> R0005:C00311-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04767>       ROUTE PIPE       ->      1.0 02:MH02          73.63     5.095 No_date    28:03    33.30  n/a      .000
04768> *     [RDT= 1.00] out<-        1.0 01:102-103       73.63     4.821 No_date    28:05    33.30  n/a      .000
04769>       [L/S/n= 504./ .280/.013]
04770>       [Vmx= 2. 606: Dmx= 1. 382]
04771>       [Di n= 1. 50: Dused= 1. 68]
04772> R0005:C00312-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04773>       ADD HYD                  1.0 02:102-103       73.63     4.821 No_date    28:05    33.30  n/a      .000
04774>                          +     1.0 02:AS-MN          1.60      .202 No_date    28:01    44.32  n/a      .000
04775>                    SUM=        1.0 01:MH03          75.23     4.991 No_date    28:04    33.53  n/a      .000
04776> R0005:C00313-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04777>       SAVE HYD                 1.0 01:MH03          75.23     4.991 No_date    28:04    33.53  n/a      .000
04778>       fname : MH03 0005
04779>       remark: Total Flows at MH03
04780> R0005:C00314-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04781>       ROUTE PIPE       ->      1.0 02:MH03          75.23     4.991 No_date    28:04    33.53  n/a      .000
04782>       [RDT= 1.00] out<-        1.0 01:103-104       75.23     4.875 No_date    28:06    33.53  n/a      .000
04783>       [L/S/n=  438./ .460/.013]
04784>       [Vmx= 3. 219: Dmx= 1. 124]
04785>       [Di n= 1. 65: Dused= 1. 65]
04786> R0005:C00315-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04787>       CONTINUOUS STANDHYD      1.0 01:A6            1.56      .200 No_date    28:01    44.32  .776      .000
04788>       [XI M=. 71: TI M=. 71]
04789>       [LOSS= 2 : CN= 75.0]
04790>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04791>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 280. : MNI=. 013: SCI=    .0]
04792>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04793>       [SMN= 33. 81: SMXx=225. 43: SK=  .010]
04794> R0005:C00316-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04795>       ADD HYD                  1.0 02:AS-MI           .00      .000 No_date     0:00      .00  n/a      .000
04796>                          +     1.0 02:A6            1.56      .200 No_date    28:01    44.32  n/a      .000
04797>                    SUM=        1.0 01:AST           1.56      .200 No_date    28:01    44.32  n/a      .000
04798> R0005:C00317-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04799>       COMPUTE DUALHYD          1.0 01:AST           1.56      .200 No_date    28:01    44.32  n/a      .000
04800>       Major System   /         1.0 02:A6-MI           .00      .000 No_date     0:00      .00  n/a      .000
04801>       Minor System   \         1.0 03:A6-MN         1.56      .200 No_date    28:01    44.32  n/a      .000
04802>       [MjSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04803> R0005:C00318-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04804>       ADD HYD                  1.0 02:A6-MN         1.56      .200 No_date    28:01    44.32  n/a      .000
04805>                          +     1.0 02:103-104       75.23     4.875 No_date    28:06    33.53  n/a      .000
04806>                          +     1.0 02:TODD_MIn      30.23     2.959 No_date    28:02    39.47  n/a      .000
04807>                    SUM=        1.0 01:MH04         107.02     7.823 No_date    28:04    35.37  n/a      .000
04808> R0005:C00319-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04809>       SAVE HYD                 1.0 01:MH04         107.02     7.823 No_date    28:04    35.37  n/a      .000
04810>       fname : MH04 0005
04811>       remark: Total Flows at MH04
04812> R0005:C00320-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04813>       CONTINUOUS STANDHYD      1.0 01:B2            12.31     1.023 No_date    28:02    34.82  .610      .000
04814>       [XI M=. 41: TI M=. 54]
04815>       [LOSS= 2 : CN= 75.0]
04816>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04817>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 417. : MNI=. 013: SCI=    .0]
04818>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04819>       [SMN= 33. 81: SMXx=225. 43: SK=  .010]
04820> R0005:C00321-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04821>       COMPUTE DUALHYD          1.0 01:B2            12.31     1.023 No_date    28:02    34.82  n/a      .000
04822>       Major System   /         1.0 02:B2-MI           .00      .000 No_date     0:00      .00  n/a      .000
04823>       Minor System   \         1.0 03:B2-MN         12.31     1.023 No_date    28:02    34.82  n/a      .000
04824>       [MjSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04825> R0005:C00322-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04826>       ROUTE PIPE       ->      1.0 02:B2-MN         12.31     1.023 No_date    28:02    34.82  n/a      .000
04827>       [RDT= 1.00] out<-        1.0 01:315-333       12.31      .941 No_date    28:04    34.82  n/a      .000
04828>       [L/S/n=  254./ .100/.013]
04829>       [Vmx= 1. 219: Dmx=  .834]
04830>       [Di n= 1. 20: Dused= 1. 20]
04831> R0005:C00323-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04832>       CONTINUOUS STANDHYD      1.0 01:B3             5.59      .477 No_date    28:02    34.82  .610      .000
04833>       [XI M=. 41: TI M=. 54]
04834>       [LOSS= 2 : CN= 75.0]
04835>       [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
04836>       [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 345. : MNI=. 013: SCI=    .0]
04837>       [IaRECImp=   4. 00: IaRECper=   4. 00]
04838>       [SMN= 33. 81: SMXx=225. 43: SK=  .010]
04839> R0005:C00324-------------DTmin-1:D:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
04840>       COMPUTE DUALHYD          1.0 01:B3             5.59      .477 No_date    28:02    34.82  n/a      .000
04841>       Major System   /         1.0 02:B3-MI           .00      .000 No_date     0:00      .00  n/a      .000
04842>       Minor System   \         1.0 03:B3-MN         5.59      .459 No_date    28:00    34.87  n/a      .000
04843>       [MjSysSto=. 3219E+01,  Tot Or f Vol =
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04863>          [ Dx= 1. 20: Dused= 1. 23)
04864> R0005: C00329-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04865>          ROUTE PIPE      ->          1. 0 02: 335-338          17. 90        1. 265 No_date   28: 06    34. 84   n/a        .000
04866>          [ RDT= 1. 00] out <-        1. 0 01: 338-340          17. 90        1. 183 No_date   28: 06    34. 84   n/a        .000
04867>          [ L/ S/ n=  233. / . 100/ . 013]
04868>          [ Vmx= 1. 294: Dmx=  . 872]
04869>          [ Dk= 1. 35: Dused= 1. 35]
04870> R0005: C00330-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04871>          CONTI NUOUS STANDHYD    1. 0 01: B4               7. 60         . 638 No_date   28: 02    34. 82   . 610      .000
04872>          [ XI M= . 41: TI M= . 54]
04873>          [ LOSS= 2 : CN= 75. 0]
04874>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
04875>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 388. : MNI= . 013: SCI=   . 0]
04876>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
04877>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
04878> R0005: C00331-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04879>          COMPUTE DUALHYD         1. 0 01: B4               7. 60         . 638 No_date   28: 02    34. 82   n/a        .000
04880>          Major System    /       1. 0 02: B4- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
04881>          Minor System    \       1. 0 03: B4- MN           7. 60         . 638 No_date   28: 02    34. 82   n/a        .000
04882>          [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
04883> R0005: C00332-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04884>          ADD HYD                 1. 0 02: 338- 340         17. 90        1. 183 No_date   28: 06    34. 84   n/a        .000
04885>                          +       1. 0 02: B4- MN           7. 60         . 638 No_date   28: 02    34. 82   n/a        .000
04886>                          SUM=    1. 0 01: MI040            25. 50        1. 761 No_date   28: 05    34. 83   n/a        .000
04887> R0005: C00333-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04888>          SAVE HYD                1. 0 01: MI040            25. 50        1. 761 No_date   28: 05    34. 83   n/a        .000
04889>          fname : MI040. 0005
04890>          remark: Total Flows at MI040
04891> R0005: C00334-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04892>          ROUTE PIPE      ->          1. 0 02: MI040            25. 50        1. 698 No_date   28: 05    34. 83   n/a        .000
04893>          [ RDT= 1. 00] out <-        1. 0 01: 340- 104         25. 50        1. 698 No_date   28: 06    34. 83   n/a        .000
04894>          [ L/ S/ n=  240. / . 150/ . 013]
04895>          [ Vmx= 1. 648: Dmx=  . 823]
04896>          [ Dk= 1. 65: Dused= 1. 65]
04897> R0005: C00335-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04898>          ADD HYD                 1. 0 02: 340- 104         25. 50        1. 698 No_date   28: 06    34. 83   n/a        .000
04899>                          +       1. 0 02: MI104            107. 02       7. 823 No_date   28: 04    35. 37   n/a        .000
04900>                          SUM=    1. 0 01: MI104T           132. 52       9. 463 No_date   28: 04    35. 27   n/a        .000
04901> R0005: C00336-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04902>          ROUTE PIPE      ->          1. 0 02: MI040            132. 52       9. 463 No_date   28: 04    35. 27   n/a        .000
04903> *        [ RDT= 1. 00] out <-        1. 0 01: 104- 105         132. 52       8. 848 No_date   28: 06    35. 27   n/a        .000
04904>          [ L/ S/ n=  380. / . 100/ . 013]
04905>          [ Vmx= 2. 012: Dmx=  1. 868]
04906>          [ HGHt= 2. 20: WIDTH= 2. 52]
04907> R0005: C00337-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04908>          CONTI NUOUS STANDHYD    1. 0 01: B5               2. 20         . 248 No_date   28: 00    38. 90   . 681      .000
04909>          [ XI M= . 57: TI M= . 57]
04910>          [ LOSS= 2 : CN= 75. 0]
04911>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
04912>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 187. : MNI= . 013: SCI=   . 0]
04913>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
04914>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
04915> R0005: C00338-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04916>          COMPUTE DUALHYD         1. 0 01: B5               2. 20         . 248 No_date   28: 00    38. 90   n/a        .000
04917>          Major System    /       1. 0 02: B5- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
04918>          Minor System    \       1. 0 03: B5- MN           2. 20         . 248 No_date   28: 00    38. 90   n/a        .000
04919>          [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
04920> R0005: C00339-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04921>          CONTI NUOUS STANDHYD    1. 0 01: A8               . 96          . 130 No_date   28: 00    44. 32   . 776      .000
04922>          [ XI M= . 71: TI M= . 71]
04923>          [ LOSS= 2 : CN= 75. 0]
04924>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
04925>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 186. : MNI= . 013: SCI=   . 0]
04926>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
04927>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
04928> R0005: C00340-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04929>          ADD HYD                 1. 0 02: A6- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
04930>                          +       1. 0 02: A8               . 96          . 130 No_date   28: 00    44. 32   n/a        .000
04931>                          SUM=    1. 0 01: A8T              . 96          . 130 No_date   28: 00    44. 32   n/a        .000
04932> R0005: C00341-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04933>          COMPUTE DUALHYD         1. 0 01: A8T              . 96          . 130 No_date   28: 00    44. 32   n/a        .000
04934>          Major System    /       1. 0 02: A8- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
04935>          Minor System    \       1. 0 03: A8- MN           . 96          . 130 No_date   28: 00    44. 32   n/a        .000
04936>          [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
04937> R0005: C00342-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04938>          ADD HYD                 1. 0 02: 104- 105         132. 52       8. 848 No_date   28: 06    35. 27   n/a        .000
04939>                          +       1. 0 02: B5- MN           2. 20         . 248 No_date   28: 00    38. 90   n/a        .000
04940>                          +       1. 0 02: A8- MN           . 96          . 130 No_date   28: 00    44. 32   n/a        .000
04941>                          +       1. 0 02: TODD_MG j        . 00          . 000 No_date   0: 00     . 00     n/a        .000
04942>                          SUM=    1. 0 01: MI105            135. 68       9. 064 No_date   28: 05    35. 39   n/a        .000
04943> R0005: C00343-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04944>          SAVE HYD                1. 0 01: MI105            135. 68       9. 064 No_date   28: 05    35. 39   n/a        .000
04945>          fname : MI105. 0005
04946>          remark: Total Flows at MI105
04947> R0005: C00344-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04948> *        DI VERT HYD             ->          1. 0 01: A8- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
04949>                  diverted <=     1. 0 02: A8- MI- JR       . 00          . 000 No_date   0: 00     . 00     n/a        .000
04950>                  diverted <=     1. 0 03: A8- MI- B6       . 00          . 000 No_date   0: 00     . 00     n/a        .000
04951> R0005: C00345-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04952>          DI VERT HYD             ->          1. 0 01: MI105            135. 68       9. 064 No_date   28: 05    35. 39   n/a        .000
04953>                  diverted <=     1. 0 02: MI105- JR        25. 07        6. 058 No_date   28: 05    35. 39   n/a        .000
04954>                  diverted <=     1. 0 03: MI105- B6        110. 61       3. 006 No_date   28: 05    35. 39   n/a        .000
04955> R0005: C00346-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04956>          CONTI NUOUS STANDHYD    1. 0 01: B7               7. 19         . 661 No_date   28: 01    34. 82   . 610      .000
04957>          [ XI M= . 41: TI M= . 54]
04958>          [ LOSS= 2 : CN= 75. 0]
04959>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
04960>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 211. : MNI= . 013: SCI=   . 0]
04961>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
04962>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
04963> R0005: C00347-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04964>          ADD HYD                 1. 0 02: B4- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
04965>                          +       1. 0 02: B7               7. 19         . 661 No_date   28: 01    34. 82   n/a        .000
04966>                          SUM=    1. 0 01: B7- B4MI         7. 19         . 661 No_date   28: 01    34. 82   n/a        .000
04967> R0005: C00348-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04968>          COMPUTE DUALHYD         1. 0 01: B7- B4MI         7. 19         . 661 No_date   28: 01    34. 82   n/a        .000
04969>          Major System    /       1. 0 02: B7R- MI          . 00          . 000 No_date   0: 00     . 00     n/a        .000
04970>          Minor System    \       1. 0 03: B7R- MN          7. 19         . 629 No_date   27: 59    34. 89   n/a        .000
04971>          [ MJ Sys St o=. 5005E+01,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
04972> R0005: C00349-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04973>          ROUTE PIPE      ->          1. 0 02: B7R- MN          7. 19         . 629 No_date   27: 59    34. 89   n/a        .000
04974>          [ RDT= 1. 00] out <-        1. 0 01: 360- 106A        7. 19         . 615 No_date   28: 05    34. 89   n/a        .000
04975>          [ L/ S/ n=  167. / . 100/ . 013]
04976>          [ Vmx= 1. 089: Dmx=  . 665]
04977>          [ Dk= 1. 05: Dused= 1. 05]
04978> R0005: C00350-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04979>          CONTI NUOUS STANDHYD    1. 0 01: B6               3. 29         . 315 No_date   28: 00    34. 82   . 610      .000
04980>          [ XI M= . 41: TI M= . 54]
04981>          [ LOSS= 2 : CN= 75. 0]
04982>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
04983>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 148. : MNI= . 013: SCI=   . 0]
04984>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
04985>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
04986> R0005: C00351-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04987>          COMPUTE DUALHYD         1. 0 01: B6               3. 29         . 315 No_date   28: 00    34. 82   n/a        .000
04988>          Major System    /       1. 0 02: B6- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
04989>          Minor System    \       1. 0 03: B6- MN           3. 29         . 064 No_date   27: 39    34. 87   n/a        .000
04990>          [ MJ Sys St o=. 2841E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
04991> R0005: C00352-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
04992>          CONTI NUOUS STANDHYD    1. 0 01: EX- LAND         32. 50        2. 843 No_date   28: 02    35. 73   . 626      .000
04993>          [ XI M= . 50: TI M= . 50]
04994>          [ LOSS= 2 : CN= 74. 0]
04995>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
04996>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 465. : MNI= . 013: SCI=   . 0]
04997>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
04998>          [ SMI N= 36. 67:  SMAX= 244. 49:  SK= . 010]
04999> R0005: C00353-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05000>          COMPUTE DUALHYD         1. 0 01: EX- LAND         32. 50        2. 843 No_date   28: 02    35. 73   n/a        .000
05001>          Major System    /       1. 0 02: EX- LAND- MI     . 00          . 000 No_date   0: 00     . 00     n/a        .000
05002>          Minor System    \       1. 0 03: EX- LAND- MN     32. 50        2. 275 No_date   27: 57    35. 73   n/a        .000
05003>          [ MJ Sys St o=. 2310E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
05004> R0005: C00354-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05005>          ADD HYD                 1. 0 02: B7- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
05006>                          +       1. 0 02: EX- LAND- MI     . 00          . 000 No_date   0: 00     . 00     n/a        .000
05007>                          +       1. 0 02: B5- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
05008>                          +       1. 0 02: B6- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
05009>                          +       1. 0 02: B6- MN           3. 29         . 064 No_date   27: 39    34. 87   n/a        .000
05010>                          +       1. 0 02: A8- MI- B6       . 00          . 000 No_date   0: 00     . 00     n/a        .000
05011>                          SUM=    1. 0 01: B6- B7ExMI       3. 29         . 064 No_date   27: 39    34. 87   n/a        .000
05012> R0005: C00355-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05013>          COMPUTE DUALHYD         1. 0 01: B6- B7ExMI       3. 29         . 064 No_date   27: 39    34. 87   n/a        .000
05014>          Major System    /       1. 0 02: B6R- MI          . 00          . 000 No_date   0: 00     . 00     n/a        .000
05015>          Minor System    \       1. 0 03: B6R- MN          3. 29         . 064 No_date   27: 39    34. 87   n/a        .000
05016>          [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
05017> R0005: C00356-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05018>          ROUTE PIPE      ->          1. 0 02: MI105- B6        110. 61       3. 006 No_date   28: 05    35. 39   n/a        .000
05019>          [ RDT= 1. 00] out <-        1. 0 01: 105- 106A        110. 61       3. 005 No_date   28: 08    35. 39   n/a        .000
05020>          [ L/ S/ n=  208. / . 100/ . 013]
05021>          [ Vmx= 1. 597: Dmx=  1. 248]
05022>          [ Dk= 1. 80: Dused= 1. 80]
05023> R0005: C00357-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05024>          ADD HYD                 1. 0 02: 360- 106A        7. 19         . 615 No_date   28: 05    34. 89   n/a        .000
05025>                          +       1. 0 02: 105- 106A        110. 61       3. 005 No_date   28: 08    35. 39   n/a        .000
05026>                          +       1. 0 02: B6R- MN          3. 29         . 064 No_date   27: 39    34. 87   n/a        .000
05027>                          +       1. 0 02: B6R- MI          . 00          . 000 No_date   0: 00     . 00     n/a        .000
05028>                          SUM=    1. 0 01: MI106A           121. 09       3. 682 No_date   28: 05    35. 35   n/a        .000
05029> R0005: C00358-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05030>          SAVE HYD                1. 0 01: MI106A           121. 09       3. 682 No_date   28: 05    35. 35   n/a        .000
05031>          fname : MI106A. 0005
05032>          remark: Total Flows at MI106A
05033> R0005: C00359-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05034>          ROUTE PIPE      ->          1. 0 02: MI106A           121. 09       3. 682 No_date   28: 05    35. 35   n/a        .000
05035> *        [ RDT= 1. 00] out <-        1. 0 01: 106A- 106        121. 09       3. 651 No_date   28: 05    35. 35   n/a        .000
05036>          [ L/ S/ n=  190. / . 100/ . 013]
05037>          [ Vmx= 1. 633: Dmx=  1. 484]
05038>          [ Dk= 1. 80: Dused= 1. 81]
05039> R0005: C00360-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05040>          CONTI NUOUS STANDHYD    1. 0 01: A9               2. 44         . 316 No_date   28: 00    44. 32   . 776      .000
05041>          [ XI M= . 71: TI M= . 71]
05042>          [ LOSS= 2 : CN= 75. 0]
05043>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
05044>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 262. : MNI= . 013: SCI=   . 0]
05045>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
05046>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
05047> R0005: C00361-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05048>          COMPUTE DUALHYD         1. 0 01: A9               2. 44         . 316 No_date   28: 00    44. 32   n/a        .000
05049>          Major System    /       1. 0 02: A9- MI           . 00          . 000 No_date   0: 00     . 00     n/a        .000
05050>          Minor System    \       1. 0 03: A9- MN           2. 44         . 316 No_date   28: 00    44. 32   n/a        .000
05051> R0005: C00362-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05052>          ADD HYD                 1. 0 02: 106A- 106        121. 09       3. 651 No_date   28: 05    35. 35   n/a        .000
05053>                          +       1. 0 02: A9- MN           2. 44         . 316 No_date   28: 00    44. 32   n/a        .000
05054>                          SUM=    1. 0 01: MI106            123. 53       3. 896 No_date   28: 03    35. 52   n/a        .000
05055> R0005: C00363-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05056>          SAVE HYD                1. 0 01: MI106            123. 53       3. 896 No_date   28: 03    35. 52   n/a        .000
05057>          fname : MI106. 0005
05058>          remark: Total Flows at MI106
05059> R0005: C00364-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05060>          ROUTE PIPE      ->          1. 0 02: MI106            123. 53       3. 896 No_date   28: 03    35. 52   n/a        .000
05061> *        [ RDT= 1. 00] out <-        1. 0 01: 106- 107         123. 53       3. 814 No_date   28: 07    35. 52   n/a        .000
05062>          [ L/ S/ n=  123. / . 100/ . 013]
05063>          [ Vmx= 1. 656: Dmx=  1. 516]
05064>          [ Dk= 1. 80: Dused= 1. 85]
05065> R0005: C00365-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05066>          CONTI NUOUS STANDHYD    1. 0 01: A10              4. 14         . 345 No_date   28: 01    32. 29   . 565      .000
05067>          [ XI M= . 35: TI M= . 47]
05068>          [ LOSS= 2 : CN= 75. 0]
05069>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
05070>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 183. : MNI= . 013: SCI=   . 0]
05071>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
05072>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
05073> R0005: C00366-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05074>          COMPUTE DUALHYD         1. 0 01: A10              4. 14         . 345 No_date   28: 01    32. 29   n/a        .000
05075>          Major System    /       1. 0 02: A10- MI          . 00          . 000 No_date   0: 00     . 00     n/a        .000
05076>          Minor System    \       1. 0 03: A10- MN          4. 14         . 310 No_date   27: 58    32. 34   n/a        .000
05077>          [ MJ Sys St o=. 7677E+01,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
05078> R0005: C00367-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05079>          CONTI NUOUS STANDHYD    1. 0 01: A11              10. 61        1. 053 No_date   28: 02    38. 79   . 679      .000
05080>          [ XI M= . 53: TI M= . 62]
05081>          [ LOSS= 2 : CN= 75. 0]
05082>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
05083>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 379. : MNI= . 013: SCI=   . 0]
05084>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
05085>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
05086> R0005: C00368-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05087>          COMPUTE DUALHYD         1. 0 01: A11              10. 61        1. 053 No_date   28: 02    38. 79   n/a        .000
05088>          Major System    /       1. 0 02: A11- MI          . 00          . 000 No_date   0: 00     . 00     n/a        .000
05089>          Minor System    \       1. 0 03: A11- MN          10. 61        . 993 No_date   28: 00    38. 82   n/a        .000
05090>          [ MJ Sys St o=. 1280E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
05091> R0005: C00369-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05092>          ADD HYD                 1. 0 02: 106- 107         123. 53       3. 814 No_date   28: 07    35. 52   n/a        .000
05093>                          +       1. 0 02: A10- MN          4. 14         . 310 No_date   27: 58    32. 34   n/a        .000
05094>                          +       1. 0 02: A11- MN          10. 61        . 993 No_date   28: 00    38. 82   n/a        .000
05095>                          SUM=    1. 0 01: MI107            138. 28       5. 112 No_date   28: 06    35. 68   n/a        .000
05096> R0005: C00370-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05097>          SAVE HYD                1. 0 01: MI107            138. 28       5. 112 No_date   28: 06    35. 68   n/a        .000
05098>          fname : MI107. 0005
05099>          remark: Total Flows at MI107
05100> R0005: C00371-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05101>          ROUTE PIPE      ->          1. 0 02: MI107            138. 28       5. 112 No_date   28: 06    35. 68   n/a        .000
05102> *        [ RDT= 1. 00] out <-        1. 0 01: 107- 119         138. 28       5. 061 No_date   28: 07    35. 68   n/a        .000
05103>          [ L/ S/ n=  114. / . 120/ . 013]
05104>          [ Vmx= 1. 898: Dmx=  1. 622]
05105>          [ Dk= 1. 80: Dused= 1. 98]
05106> R0005: C00372-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05107>          ROUTE PIPE      ->          1. 0 02: 107- 119         138. 28       5. 061 No_date   28: 07    35. 68   n/a        .000
05108> *        [ RDT= 1. 00] out <-        1. 0 01: 119- 108         138. 28       5. 009 No_date   28: 07    35. 68   n/a        .000
05109>          [ L/ S/ n=  66. / . 120/ . 013]
05110>          [ Vmx= 1. 893: Dmx=  1. 616]
05111>          [ Dk= 1. 80: Dused= 1. 97]
05112> R0005: C00373-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05113>          CONTI NUOUS STANDHYD    1. 0 01: A12              12. 29        1. 145 No_date   28: 00    34. 82   . 610      .000
05114>          [ XI M= . 41: TI M= . 54]
05115>          [ LOSS= 2 : CN= 75. 0]
05116>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
05117>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 183. : MNI= . 013: SCI=   . 0]
05118>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
05119>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
05120> R0005: C00374-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05121>          COMPUTE DUALHYD         1. 0 01: A12              12. 29        1. 145 No_date   28: 00    34. 82   n/a        .000
05122>          Major System    /       1. 0 02: A12- MI          . 00          . 000 No_date   0: 00     . 00     n/a        .000
05123>          Minor System    \       1. 0 03: A12- MN          12. 29        1. 029 No_date   27: 57    34. 93   n/a        .000
05124>          [ MJ Sys St o=. 2567E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
05125> R0005: C00375-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05126>          CONTI NUOUS STANDHYD    1. 0 01: A13              2. 59         . 312 No_date   28: 01    44. 32   . 776      .000
05127>          [ XI M= . 71: TI M= . 71]
05128>          [ LOSS= 2 : CN= 75. 0]
05129>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
05130>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 379. : MNI= . 013: SCI=   . 0]
05131>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
05132>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
05133> R0005: C00376-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05134>          COMPUTE DUALHYD         1. 0 01: A13              2. 59         . 312 No_date   28: 01    44. 32   n/a        .000
05135>          Major System    /       1. 0 02: A13- MI          . 00          . 000 No_date   0: 00     . 00     n/a        .000
05136>          Minor System    \       1. 0 03: A13- MN          2. 59         . 312 No_date   28: 01    44. 32   n/a        .000
05137> R0005: C00377-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05138>          CONTI NUOUS STANDHYD    1. 0 01: Pond- Block      2. 94         . 261 No_date   28: 00    32. 90   . 576      .000
05139>          [ XI M= . 41: TI M= . 41]
05140>          [ LOSS= 2 : CN= 75. 0]
05141>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=   . 0]
05142>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 00: LGI= 183. : MNI= . 013: SCI=   . 0]
05143>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
05144>          [ SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
05145> R0005: C00378-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05146>          ADD HYD                 1. 0 02: 119- 108         138. 28       5. 009 No_date   28: 07    35. 68   n/a        .000
05147>                          +       1. 0 02: A13- MN          2. 59         . 312 No_date   28: 01    44. 32   n/a        .000
05148>                          +       1. 0 02: A12- MN          12. 29        1. 029 No_date   27: 57    34. 93   n/a        .000
05149>                          SUM=    1. 0 01: MI108            153. 16       6. 257 No_date   28: 01    35. 77   n/a        .000
05150> R0005: C00379-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05151>          SAVE HYD                1. 0 01: MI108            153. 16       6. 257 No_date   28: 01    35. 77   n/a        .000
05152>          fname : MI108. 0005
05153>          remark: Total Flows at MI108
05154> R0005: C00380-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05155>          ROUTE PIPE      ->          1. 0 02: MI108            153. 16       6. 257 No_date   28: 01    35. 77   n/a        .000
05156> *        [ RDT= 1. 00] out <-        1. 0 01: 108- 116         153. 16       6. 250 No_date   28: 02    35. 77   n/a        .000
05157>          [ L/ S/ n=  77. / . 130/ . 013]
05158>          [ Vmx= 2. 057: Dmx=  1. 724]
05159>          [ Dk= 1. 80: Dused= 2. 10]
05160> R0005: C00381-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05161>          ROUTE PIPE      ->          1. 0 02: 108- 116         153. 16       6. 250 No_date   28: 02    35. 77   n/a        .000
05162> *        [ RDT= 1. 00] out <-        1. 0 01: 116- corrig      153. 16       6. 248 No_date   28: 07    35. 77   n/a        .000
05163>          [ L/ S/ n=  80. / . 130/ . 013]
05164>          [ Vmx= 2. 057: Dmx=  1. 723]
05165>          [ Dk= 1. 80: Dused= 2. 10]
05166> R0005: C00382-------------- DTmin- ID: NHYD- ---------- AREA ha- QPEAK cms- TpeakDate_hh: mm- ---- RVmm R. C. ---- DWFcms
05167>          ADD HYD                 1. 0 02: 116- corrig      153. 16       6. 248 No_date   28: 07    35. 77   n/a        .000
05168>                          +       1. 0 02: Pond- Block      2. 94         . 261 No_date   28: 00    32. 90   n/a        .000
05169>                          SUM=    1. 0 01: Corrigan         156. 10       6. 442 No_date   
```

```
05237>     SAVE HYD                    1. 0 01: SN_MI        55194.85    70. 602 No_date   37:03   18. 87  n/a      .000
05238>       fname : SN_MI. 0005
05239>       remark: Total Flows at Jockvale Road
05240> #
05241> # Hydrograph from Jockvale Road routed to Heart's Desire
05242> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
05243> #
05244> R0005: C00392-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05245>     ROUTE CHANNEL     ->      1. 0 02: SN_MI        55194.85    70. 602 No_date   37:03   18. 87  n/a      .000
05246>       [RDT= 1. 00] out <-      1. 0 01: N_DE         55194.85    70. 452 No_date   37:20   18. 87  n/a      .000
05247>       [L/ S/ n= 1962. /  . 223/ . 045]
05248>       [Vmx= 1. 303: Dmx= 1. 891]
05249> #*************************************************************************
05250> #     Catchment DESIRE
05251> #     - To Jock River (north of the Jock)
05252> #     - Rural-estate subdivision (Heart's Desire Community)
05253> #*************************************************************************
05254> R0005: C00393-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05255>     CONTINUOUS STANDHYD      1. 0 01: DESIRE       23. 78      1. 359 No_date   28: 03   27. 22 . 477     .000
05256>       [XIMP=. 25: TIMP=. 25]
05257>       [LOSS= 2 : CN= 77. 0]
05258>       [Pervious     area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05259>       [Impervious   area: I Aimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=    . 0]
05260>       [IaREC mp=    4. 00:  IaRECper=    4. 00]
05261>       [SMI N= 31. 15:  SMAX=207. 66:  SK= . 010]
05262> #*************************************************************************
05263> #     Catchment JOCKVA
05264> #     - To Jockvale SWM Facility
05265> #     - Residential development & golf course
05266> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
05267> #       JOCKVA area became 225. 13 ha instead of 257. 63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32. 5 ha as
05268> #*************************************************************************
05269> R0005: C00394-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05270>     CONTINUOUS STANDHYD      1. 0 01: JOCKVA       225. 13     14. 675 No_date   28: 09   35. 73 . 626     .000
05271>       [XIMP=. 50: TIMP=. 50]
05272>       [LOSS= 2 : CN= 74. 0]
05273>       [Pervious     area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05274>       [Impervious   area: I Aimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=    . 0]
05275>       [IaREC mp=    4. 00:  IaRECper=    4. 00]
05276>       [SMI N= 36. 67:  SMAX=244. 49:  SK= . 010]
05277> R0005: C00395-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05278>     ADD HYD                  1. 0 02: EX-LAND-MI     32. 50      2. 275 No_date   27: 57   35. 73  n/a      .000
05279>                           +     1. 0 02: JOCKVA       225. 13     14. 675 No_date   28: 09   35. 73  n/a      .000
05280>                           +     1. 0 02: B2- MI          . 00        . 000 No_date   0: 00     . 00  n/a      .000
05281>                           +     1. 0 02: B3- MI          . 00        . 000 No_date   0: 00     . 00  n/a      .000
05282>                         SUM=    1. 0 01: JOCKVA-TO    257. 63     16. 950 No_date   28: 09   35. 73  n/a      .000
05283> R0005: C00396-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05284>     SAVE HYD                 1. 0 01: JOCKVA-TO    257. 63     16. 950 No_date   28: 09   35. 73  n/a      .000
05285>       fname : JOCKVA-TO. 0005
05286>       remark: Total Flows at KB first pond
05287> #*************************************************************************
05288> #     Jockvale SWM Facility
05289> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
05290> #*************************************************************************
05291> R0005: C00397-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05292>     ROUTE RESERVOIR  ->      1. 0 02: JOCKVA-TO    257. 63     16. 950 No_date   28: 09   35. 73  n/a      .000
05293>                        out <-      1. 0 01: JOCK_P       257. 63      4. 781 No_date   28: 48   35. 73  n/a      .000
05294>                overflow <-      1. 0 03: JO-OVF          . 00        . 000 No_date   0: 00     . 00  n/a      .000
05295>       [MxStoSked=. 4115E+01   m3,  Tot Orf Vol=. 0000E+00   m3,  Ni Orf=      0,  Tot Dur Orf=     0. hrs]
05296> R0005: C00398-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05297>     ADD HYD                  1. 0 02: N_DE         55194.85    70. 452 No_date   37: 20   18. 87  n/a      .000
05298>                           +     1. 0 02: DESIRE       23. 78      1. 359 No_date   28: 03   27. 22  n/a      .000
05299>                           +     1. 0 02: JO-OVF          . 00        . 000 No_date   0: 00     . 00  n/a      .000
05300>                           +     1. 0 02: JOCK_P       257. 63     4. 781 No_date   28: 48   35. 73  n/a      .000
05301>                         SUM=    1. 0 01: SN_DE        55476. 26   71. 017 No_date   37: 17   18. 95  n/a      .000
05302> R0005: C00399-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05303>     SAVE HYD                 1. 0 01: SN_DE        55476. 26   71. 017 No_date   37: 17   18. 95  n/a      .000
05304>       fname : SN_DE. 0005
05305>       remark: Total Flows at Heart's Desire
05306> #
05307> # Hydrograph from Heart's Desire routed to Rideau River
05308> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
05309> #
05310> R0005: C00400-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05311>     ROUTE CHANNEL     ->      1. 0 02: SN_DE        55476. 26   71. 017 No_date   37: 17   18. 95  n/a      .000
05312>       [RDT= 1. 00] out <-      1. 0 01: NI           55476. 26   71. 029 No_date   37: 08   18. 95  n/a      .000
05313>       [L/ S/ n=  563. /  . 967/ . 045]
05314>       [Vmx= 1. 676: Dmx=  . 955]
05315> #*************************************************************************
05316> #     Catchment S-2
05317> #     - To Jock River (north and south)
05318> #     - Undeveloped floodplain and river
05319> #*************************************************************************
05320> R0005: C00401-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05321>     CONTINUOUS NASHYD        1. 0 01: S-2          102. 94      2. 262 No_date   28: 20   19. 00 . 333     .000
05322>       [CN= 72. 0: N= 3. 00:  Tp=    . 40]
05323>       [IaREC= 4. 00:  SMI N= 39. 75:  SMAX=264. 99:  SK= . 010]
05324>       [InterEventTime=  12. 00]
05325> R0005: C00402-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05326>     ADD HYD                  1. 0 02: NI           55476. 26   71. 029 No_date   37: 08   18. 95  n/a      .000
05327>                           +     1. 0 02: S-2          102. 94      2. 262 No_date   28: 20   19. 00  n/a      .000
05328>                         SUM=    1. 0 01: SN_NI        55579. 20   71. 168 No_date   37: 08   18. 95  n/a      .000
05329> R0005: C00403-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05330>     SAVE HYD                 1. 0 01: SN_NI        55579. 20   71. 168 No_date   37: 08   18. 95  n/a      .000
05331>       fname : SN_NI. 0005
05332>       remark: Total Flows at Rideau River
05333> ##########################################################################
05334>   ** END OF RUN :      9
05335>
05336> ************************************************************************************************************
05337>
05338>
05339>
05340>
05341>
05342>  RUN#: COMMAND#
05343> R0010: C00001-----------------------------------------------------------------------------------------------
05344>     START                    [ TZERO =      . 00 hrs on          0]
05345>       [METOUT=    2     (1=imperial, 2=metric output)]
05346>       [NSTORM=    1 ]
05347>       [NRUN   = 0010 ]
05348> #*************************************************************************
05349> #  SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
05350> #*************************************************************************
05351> #  Project Name: [Jock River]       Project Number: [1474- 16]
05352> #  Date       : 04- 03- 2021
05353> #  Modeller   : [ M M ]
05354> #  Company    : JFSA inc.
05355> #  License #  :  2549237
05356> #*************************************************************************
05357> # CALIBRATION OF SUMMER MODEL PARAMETERS
05358> # USING CONTINUOUS SIMULATIONS
05359> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
05360> # Use data collected from May 1st to July 14, 2003
05361> # 2020- 11- 30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0. 1 instead of 0. 0001)
05362> # 2020- 12- 01 correct pond curve values
05363> # 2020- 12- 01 change WCLAR_BRAZ XIMP to 0. 55,  SLPI=[ 0. 5]( %) (impervious slope),  and LGI up to 700m
05364> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"] , NHYDin=["SN_TO"]) from 0. 033 % (as per S
05365> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"] , NHYDin=["SN_CE"]) from 0. 01 % (as per St
05366> # ---------------------------------------------------------------------------------------------------------
05367> R0010: C00002-----------------------------------------------------------------------------------------------
05368>     READ STORM               Filename = storm 001
05369>       Comment  = Pluie SCS de 24 hres 1: 10 ans pour Ottawa CDA
05370>       [ SDT=10. 00: SDUR=   24. 00: PTOT=   64. 69]
05371> R0010: C00003-----------------------------------------------------------------------------------------------
05372>     MODIFY STORM             [ RFACT=   1. 00: TSHIFT= 960. 00 min]
05373>       [ SDT=10. 00: SDUR=   40. 00: PTOT=   64. 69]
05374> R0010: C00004-----------------------------------------------------------------------------------------------
05375>     DEFAULT VALUES           Filename = T: \PROJ\ 1474- 16\ Design\ 20201026- QuantityControlAnalysis\ SWMHYMO\ SMR- Model\ updated3\ CitiGate. DEF
05376>       ICASEdv   = 1 (read and print data)
05377>       FileTitle= File comment: [Based on various calibration exercises in Onta
05378>                  THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
05379>       Horton's infiltration equation parameters:
05380>       [Fo= 76. 20 mm/ hr] [Fc=13. 20 mm/ hr] [DCAY= 4. 14 / hr] [F=   . 00 mm]
05381>       Parameters for PERVIOUS surfaces in STANDHYD:
05382>       [I Aper=    4. 67 mm] [LGP=50. 00 m] [MNP=. 250]
05383>       Parameters for IMPERVIOUS surfaces in STANDHYD:
05384>       [I Aimp=    1. 57 mm] [CLI= 1. 50]    [MNI=. 013]
05385>       Parameters used in NASHYD:
05386>       [ Ia=    4. 67 mm] [ N= 3. 00]
05387>       Average monthly Pan Evaporation data in      (mm)
05388>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
05389>    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00
05390>       Average monthly Potential Evapotranspiration in      (mm)
05391>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
05392>    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00
05393> R0010: C00005-----------------------------------------------------------------------------------------------
05394>     COMPUTE API              [ APIini=  50. 00:  APIkdy=   . 8500:  APIkdt=   . 9989]
05395>       [ APImax=  97. 81:  APIavg=  62. 29:  APImin=  44. 87]
05396> #
05397> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05398> # of 1. 32
05399> R0010: C00006-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05400>     CONTINUOUS NASHYD        1. 0 01: JR_HW        3680. 00    11. 879 No_date   36: 59   20. 23 . 313     .000
05401>       [CN= 64. 0: N= 3. 00:  Tp=  7. 13]
05402>       [IaREC= 4. 00:  SMI N= 57. 05:  SMAX=380. 32:  SK= . 010]
05403>       [InterEventTime=  12. 00]
05404> #
05405> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05406> # of 1. 32
05407> R0010: C00007-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05408>     CONTINUOUS NASHYD        1. 0 01: SW_13         971. 00     4. 365 No_date   32: 35   18. 83 . 291     .000
05409>       [CN= 61. 0: N= 3. 00:  Tp=  3. 76]
05410>       [IaREC= 4. 00:  SMI N= 64. 50:  SMAX=430. 01:  SK= . 010]
05411>       [InterEventTime=  12. 00]
05412> #
05413> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05414> # of 1. 80
05415> R0010: C00008-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05416>     CONTINUOUS NASHYD        1. 0 01: JR_GWM       3074. 00    5. 829 No_date   39: 59   16. 22 . 251     .000
05417>       [CN= 55. 0: N= 3. 00:  Tp=11. 33]
05418>       [IaREC= 4. 00:  SMI N= 83. 24:  SMAX=554. 96:  SK= . 010]
05419>       [InterEventTime=  12. 00]
05420> #
05421> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05422> # of 1. 80
05423> R0010: C00009-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05424>     CONTINUOUS NASHYD        1. 0 01: JR_ASH       1781. 00    10. 839 No_date   32: 42   24. 81 . 383     .000
05425>       [CN= 72. 0: N= 3. 00:  Tp= 3. 91]
05426>       [IaREC= 4. 00:  SMI N= 39. 75:  SMAX=264. 99:  SK= . 010]
05427>       [InterEventTime=  12. 00]
05428> R0010: C00010-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05429>     CONTINUOUS NASHYD        1. 0 01: SW_11         500. 00     5. 639 No_date   29: 22   21. 19 . 328     .000
05430>       [CN= 66. 0: N= 3. 00:  Tp= 1. 24]
05431>       [IaREC= 4. 00:  SMI N= 52. 62:  SMAX=350. 79:  SK= . 010]
05432>       [InterEventTime=  12. 00]
05433> #
05434> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05435> # of 1. 80
05436> R0010: C00011-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05437>     CONTINUOUS NASHYD        1. 0 01: NN_CK        1917. 00    7. 897 No_date   34: 28   21. 19 . 328     .000
05438>       [CN= 66. 0: N= 3. 00:  Tp= 5. 29]
05439>       [IaREC= 4. 00:  SMI N= 52. 62:  SMAX=350. 79:  SK= . 010]
05440>       [InterEventTime=  12. 00]
05441> #
05442> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05443> # of 1. 52
05444> R0010: C00012-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05445>     CONTINUOUS NASHYD        1. 0 01: SW_10        5666. 00    21. 255 No_date   37: 58   24. 81 . 383     .000
05446>       [CN= 72. 0: N= 3. 00:  Tp= 8. 00]
05447>       [IaREC= 4. 00:  SMI N= 39. 75:  SMAX=264. 99:  SK= . 010]
05448>       [InterEventTime=  12. 00]
05449> #
05450> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05451> # of 1. 75
05452> R0010: C00013-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05453>     CONTINUOUS NASHYD        1. 0 01: KG_CK        8376. 00    20. 398 No_date   39: 59   21. 19 . 328     .000
05454>       [CN= 66. 0: N= 3. 00:  Tp=11. 66]
05455>       [IaREC= 4. 00:  SMI N= 52. 62:  SMAX=350. 79:  SK= . 010]
05456>       [InterEventTime=  12. 00]
05457> #
05458> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05459> # of 1. 68
05460> R0010: C00014-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05461>     CONTINUOUS NASHYD        1. 0 01: SW_9         1132. 00    8. 921 No_date   30: 54   23. 73 . 367     .000
05462>       [CN= 70. 0: N= 3. 00:  Tp= 2. 51]
05463>       [IaREC= 4. 00:  SMI N= 43. 07:  SMAX=287. 10:  SK= . 010]
05464>       [InterEventTime=  12. 00]
05465> #
05466> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05467> # of 1. 82
05468> R0010: C00015-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05469>     CONTINUOUS NASHYD        1. 0 01: NC_CK        4464. 00    10. 128 No_date   39: 59   19. 29 . 298     .000
05470>       [CN= 62. 0: N= 3. 00:  Tp=11. 32]
05471>       [IaREC= 4. 00:  SMI N= 61. 90:  SMAX=412. 66:  SK= . 010]
05472>       [InterEventTime=  12. 00]
05473> #
05474> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05475> # of 1. 80
05476> R0010: C00016-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05477>     CONTINUOUS NASHYD        1. 0 01: SW_8          131. 00     1. 689 No_date   28: 57   19. 76 . 305     .000
05478>       [CN= 63. 0: N= 3. 00:  Tp=    . 90]
05479>       [IaREC= 4. 00:  SMI N= 59. 42:  SMAX=396. 11:  SK= . 010]
05480>       [InterEventTime=  12. 00]
05481> #
05482> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05483> # of 1. 65
05484> R0010: C00017-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05485>     CONTINUOUS NASHYD        1. 0 01: HB_DR        3854. 00    11. 811 No_date   38: 37   21. 19 . 328     .000
05486>       [CN= 66. 0: N= 3. 00:  Tp= 8. 42]
05487>       [IaREC= 4. 00:  SMI N= 52. 62:  SMAX=350. 79:  SK= . 010]
05488>       [InterEventTime=  12. 00]
05489> #
05490> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05491> # of 1. 82
05492> R0010: C00018-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05493>     CONTINUOUS NASHYD        1. 0 01: SW_7         3197. 00    8. 899 No_date   36: 26   17. 07 . 264     .000
05494>       [CN= 57. 0: N= 3. 00:  Tp= 6. 65]
05495>       [IaREC= 4. 00:  SMI N= 76. 32:  SMAX=508. 81:  SK= . 010]
05496>       [InterEventTime=  12. 00]
05497> #
05498> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05499> # of 1. 75
05500> R0010: C00019-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05501>     CONTINUOUS NASHYD        1. 0 01: SW_6          165. 00     . 818 No_date   33: 04   21. 69 . 335     .000
05502>       [CN= 67. 0: N= 3. 00:  Tp= 4. 18]
05503>       [IaREC= 4. 00:  SMI N= 55. 55:  SMAX=336. 97:  SK= . 010]
05504>       [InterEventTime=  12. 00]
05505> #
05506> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05507> # of 1. 67
05508> R0010: C00020-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05509>     CONTINUOUS NASHYD        1. 0 01: VG_DR        1332. 00    6. 069 No_date   35: 17   24. 81 . 383     .000
05510>       [CN= 72. 0: N= 3. 00:  Tp= 5. 95]
05511>       [IaREC= 4. 00:  SMI N= 39. 75:  SMAX=264. 99:  SK= . 010]
05512>       [InterEventTime=  12. 00]
05513> R0010: C00021-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05514>     CONTINUOUS NASHYD        1. 0 01: SW_5          224. 00     5. 246 No_date   28: 45   28. 24 . 437     .000
05515>       [CN= 77. 0: N= 3. 00:  Tp=    . 75]
05516>       [IaREC= 4. 00:  SMI N= 31. 15:  SMAX=207. 66:  SK= . 010]
05517>       [InterEventTime=  12. 00]
05518> #
05519> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05520> # of 1. 20
05521> R0010: C00022-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05522>     CONTINUOUS NASHYD        1. 0 01: FL_CK        4945. 00    28. 945 No_date   33: 21   25. 91 . 401     .000
05523>       [CN= 74. 0: N= 3. 00:  Tp= 4. 45]
05524>       [IaREC= 4. 00:  SMI N= 36. 67:  SMAX=244. 49:  SK= . 010]
05525>       [InterEventTime=  12. 00]
05526> R0010: C00023-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05527>     CONTINUOUS NASHYD        1. 0 01: SW_5A2         20. 00      . 614 No_date   28: 36   31. 37 . 485     .000
05528>       [CN= 81. 0: N= 3. 00:  Tp=    . 62]
05529>       [IaREC= 4. 00:  SMI N= 25. 21:  SMAX=168. 09:  SK= . 010]
05530>       [InterEventTime=  12. 00]
05531> #
05532> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
05533> # of 1. 61
05534> R0010: C00024-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05535>     CONTINUOUS NASHYD        1. 0 01: SW_5Al        1412. 00    5. 817 No_date   37: 54   27. 06 . 418     .000
05536>       [CN= 75. 0: N= 3. 00:  Tp= 8. 00]
05537>       [IaREC= 4. 00:  SMI N= 33. 81:  SMAX=225. 43:  SK= . 010]
05538>       [InterEventTime=  12. 00]
05539> R0010: C00025-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05540>     CONTINUOUS NASHYD        1. 0 01: SW_4          585. 00     8. 458 No_date   29: 57   31. 37 . 485     .000
05541>       [CN= 81. 0: N= 3. 00:  Tp= 1. 75]
05542>       [IaREC= 4. 00:  SMI N= 25. 21:  SMAX=168. 09:  SK= . 010]
05543>       [InterEventTime=  12. 00]
05544> R0010: C00026-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05545>     CONTINUOUS NASHYD        1. 0 01: LM_CK        1021. 00    11. 195 No_date   30: 48   30. 72 . 475     .000
05546>       [CN= 80. 0: N= 3. 00:  Tp= 2. 46]
05547>       [IaREC= 4. 00:  SMI N= 26. 32:  SMAX=175. 50:  SK= . 010]
05548>       [InterEventTime=  12. 00]
05549> R0010: C00027-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05550>     CONTINUOUS NASHYD        1. 0 01: SW_2          177. 00     4. 146 No_date   28: 45   28. 24 . 437     .000
05551>       [CN= 77. 0: N= 3. 00:  Tp=    . 75]
05552>       [IaREC= 4. 00:  SMI N= 31. 15:  SMAX=207. 66:  SK= . 010]
05553>       [InterEventTime=  12. 00]
05554> R0010: C00028-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05555>     CONTINUOUS NASHYD        1. 0 01: SM_DR        1122. 00    10. 275 No_date   31: 46   31. 37 . 485     .000
05556>       [CN= 81. 0: N= 3. 00:  Tp= 3. 25]
05557>       [IaREC= 4. 00:  SMI N= 25. 21:  SMAX=168. 09:  SK= . 010]
05558>       [InterEventTime=  12. 00]
05559> R0010: C00029-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05560>     CONTINUOUS NASHYD        1. 0 01: MD_DR        2737. 00    22. 669 No_date   31: 32   27. 64 . 427     .000
05561>       [CN= 76. 0: N= 3. 00:  Tp= 3. 03]
05562>       [IaREC= 4. 00:  SMI N= 32. 46:  SMAX=216. 39:  SK= . 010]
05563>       [InterEventTime=  12. 00]
05564> #
05565> # Routing hydrographs
05566> #
05567> # Starting with the addition of Jock River Headwater and Subwatershed 13
05568> #
05569> R0010: C00030-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05570>     ADD HYD                  1. 0 02: JR_HW        3680. 00    11. 879 No_date   36: 59   20. 23  n/a      .000
05571>                           +     1. 0 02: SW_13         971. 00     4. 365 No_date   32: 35   18. 83  n/a      .000
05572>                         SUM=    1. 0 01: S_N13        4651. 00    15. 130 No_date   35: 28   19. 94  n/a      .000
05573> #
05574> # Sum of hydrographs from Node 13 routed to Node 13A
05575> # (Approximated cross-section - see cross-section 258)
05576> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
05577> #
05578> R0010: C00031-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05579>     ROUTE CHANNEL     ->      1. 0 02: S_N13        4651. 00    15. 130 No_date   35: 28   19. 94  n/a      .000
05580>       [RDT= 1. 00] out <-      1. 0 01: N13A         4651. 00    12. 097 No_date   39: 41   19. 94  n/a      .000
05581>       [L/ S/ n=  9074. /  . 022/ . 040]
05582>       [Vmx=   . 508: Dmx= 3. 307]
05583> #
05584> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
05585> #
05586> R0010: C00032-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05587>     ADD HYD                  1. 0 02: N13A         4651. 00    12. 097 No_date   39: 41   19. 94  n/a      .000
05588>                           +     1. 0 02: JR_GWM       3074. 00    5. 829 No_date   39: 59   16. 22  n/a      .000
05589>                         SUM=    1. 0 01: SN13A        7725. 00    17. 918 No_date   39: 59   18. 46  n/a      .000
05590> #
05591> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
05592> #
05593> R0010: C00033-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05594>     ROUTE RESERVOIR  ->      1. 0 02: SN13A        7725. 00    17. 918 No_date   39: 59   18. 46  n/a      .000
05595>                        out <-      1. 0 01: RES_GM       7725. 00    3. 524 No_date   58: 32   18. 46  n/a      .000
05596>       [MxStoSked=. 8503E+02   m3]
05597> #
05598> R0010: C00034-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05599>     SAVE HYD                 1. 0 01: RES_GM       7725. 00    3. 524 No_date   58: 32   18. 46  n/a      .000
05600>       fname : H_RESGM
05601>       remark: Outflow from Res GM
05602> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
05603> # (Approximated cross-section - see cross-section 258)
05604> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
05605> R0010: C00035-----------DTmin= 1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05606>     ROUTE CHANNEL     ->      1. 0 02: RES_GM       7725. 00    3. 524 No_date   58: 32   18. 46  n/a      .000
05607>       [RDT= 1. 00] out <-      1. 0 01: N12          7725. 00    3. 519 No_date   61: 53   18. 46  n/a      .000
05608>       [L/ S/ n=  5926. /  . 076/ . 040]
05609>
05610>
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05611>          {Vmax=   .546: Dmax= 1.499}
05612> #
05613> # Addition of Subwatershed Jock River at Ashton to Node 12
05614> #
05615> R0010: C00036-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05616>      ADD HYD                  1.0 02: N12          7725.00     3.519 No_date    61:53    18.46  n/a     .000
05617>                         +     1.0 02: JR_ASH       1781.00    10.839 No_date    32:42    24.81  n/a     .000
05618>                       SUM=    1.0 01: S_N12        9506.00    12.834 No_date    32:45    19.65  n/a     .000
05619> R0010: C00037-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05620>      SAVE HYD                 1.0 01: S_N12        9506.00    12.834 No_date    32:45    19.65  n/a     .000
05621>          fname : H_SN12
05622>          remark: flow at S_N12 near Ashton
05623> #
05624> # Sum of hydrographs from Node 12 routed to Node 11
05625> # (Approximated cross-section - see cross-section 258)
05626> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
05627> #
05628> # Sum of hydrographs from Node 12 routed to Node 11 with Dammy section 248
05629> #
05630> R0010: C00038-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05631>      ROUTE CHANNEL    ->     1.0 02: S_N12        9506.00    12.834 No_date    32:45    19.65  n/a     .000
05632>          [RDT= 1.00] out <-     1.0 01: Dam1       9506.00    12.710 No_date    33:02    19.65  n/a     .000
05633>          [L/S/n=  972./ .054/.040]
05634>          {Vmax=   .680: Dmax= 2.598}
05635> #
05636> # Addition of Subwatershed 11 and No Name Creek to Node 11
05637> #
05638> R0010: C00039-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05639>      ADD HYD                  1.0 02: Dam1         9506.00    12.710 No_date    33:02    19.65  n/a     .000
05640>                         +     1.0 02: SW_11         500.00     5.639 No_date    29:22    21.19  n/a     .000
05641>                         +     1.0 02: NN_CK        1917.00     7.897 No_date    34:28    21.19  n/a     .000
05642>                       SUM=    1.0 01: S_N11       11923.00    21.813 No_date    33:05    19.96  n/a     .000
05643> #
05644> # Sum of hydrographs from Node 11 routed to Node 10
05645> # Section 1
05646> #
05647> R0010: C00040-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05648>      ROUTE CHANNEL    ->     1.0 02: S_N11       11923.00    21.813 No_date    33:05    19.96  n/a     .000
05649>          [RDT= 1.00] out <-     1.0 01: N10        11923.00    14.761 No_date    39:58    19.96  n/a     .000
05650>          [L/S/n=14028./ .157/.040]
05651>          {Vmax=   .452: Dmax= 1.212}
05652> #
05653> # Addition of Subwatershed 10 to Node 10
05654> #
05655> R0010: C00041-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05656>      ADD HYD                  1.0 02: N10          11923.00    14.761 No_date    39:58    19.96  n/a     .000
05657>                         +     1.0 02: SW_10         5666.00    21.255 No_date    37:58    24.81  n/a     .000
05658>                       SUM=    1.0 01: S_N10        17589.00    35.808 No_date    38:35    21.52  n/a     .000
05659> R0010: C00042-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05660>      SAVE HYD                 1.0 01: S_N10        17589.00    35.808 No_date    38:35    21.52  n/a     .000
05661>          fname : H_SN10
05662>          remark: flow at S_N10:  N10 + SW_10
05663> # Addition of Kings Creek to S_N10
05664> #
05665> R0010: C00043-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05666>      ADD HYD                  1.0 02: S_N10        17589.00    35.808 No_date    38:35    21.52  n/a     .000
05667>                         +     1.0 02: KG_CK         8376.00    20.398 No_date    39:59    21.19  n/a     .000
05668>                       SUM=    1.0 01: S_N10A       25965.00    55.807 No_date    39:58    21.41  n/a     .000
05669> #
05670> # Sum of hydrographs from Node 10 routed to Node 9
05671> # Section 2
05672> #
05673> R0010: C00044-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05674>      ROUTE CHANNEL    ->     1.0 02: S_N10A       25965.00    55.807 No_date    39:58    21.41  n/a     .000
05675>          [RDT= 1.00] out <-     1.0 01: N9         25965.00    54.076 No_date    39:59    21.41  n/a     .000
05676>          [L/S/n= 3982./ .075/.040]
05677>          {Vmax=   .682: Dmax= 1.695}
05678> #
05679> # Addition of Subwatershed 9 and Nichols Creek to Node 9
05680> #
05681> R0010: C00045-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05682>      ADD HYD                  1.0 02: N9           25965.00    54.076 No_date    39:59    21.41  n/a     .000
05683>                         +     1.0 02: SW_9          1132.00     8.921 No_date    30:54    23.73  n/a     .000
05684>                         +     1.0 02: NC_CK         4464.00    10.128 No_date    39:59    19.29  n/a     .000
05685>                       SUM=    1.0 01: S_N9         31561.00    66.284 No_date    39:59    21.20  n/a     .000
05686> #
05687> # Sum of hydrographs from Node 9 routed to Node 8
05688> # Section 3
05689> #
05690> R0010: C00046-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05691>      ROUTE CHANNEL    ->     1.0 02: S_N9         31561.00    66.284 No_date    39:59    21.20  n/a     .000
05692>          [RDT= 1.00] out <-     1.0 01: N8         31561.00    61.483 No_date    39:57    21.20  n/a     .000
05693>          [L/S/n= 2269./ .088/.045]
05694>          {Vmax=   .363: Dmax= 1.619}
05695> #
05696> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
05697> #
05698> R0010: C00047-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05699>      ADD HYD                  1.0 02: N8           31561.00    61.483 No_date    39:57    21.20  n/a     .000
05700>                         +     1.0 02: SW_8          131.00     1.689 No_date    28:57    19.76  n/a     .000
05701>                         +     1.0 02: HB_DR        3854.00    11.811 No_date    38:37    21.19  n/a     .000
05702>                       SUM=    1.0 01: S_N8         35546.00    73.344 No_date    39:57    21.19  n/a     .000
05703> #
05704> # Sum of hydrographs from Node 8 routed to Node 7
05705> # Section 4
05706> #
05707> R0010: C00048-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05708>      ROUTE CHANNEL    ->     1.0 02: S_N8         35546.00    73.344 No_date    39:57    21.19  n/a     .000
05709>          [RDT= 1.00] out <-     1.0 01: N7         35546.00    61.416 No_date    45:01    21.19  n/a     .000
05710>          [L/S/n= 3750./ .053/.070]
05711>          {Vmax=   .218: Dmax= 1.987}
05712> #
05713> # Addition of Subwatershed 7 to Node 7
05714> #
05715> R0010: C00049-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05716>      ADD HYD                  1.0 02: N7           35546.00    61.416 No_date    45:01    21.19  n/a     .000
05717>                         +     1.0 02: SW_7          3197.00     8.899 No_date    36:26    17.07  n/a     .000
05718>                       SUM=    1.0 01: S_N7         38743.00    65.819 No_date    44:06    20.85  n/a     .000
05719> R0010: C00050-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05720>      SAVE HYD                 1.0 01: S_N7         38743.00    65.819 No_date    44:06    20.85  n/a     .000
05721>          fname : H_SN7
05722>          remark: flow at S_N7:  N7 + SW_7
05723> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
05724> # Storage area and volumes were estimated from available topo maps.
05725> # Release rate from fen was assumed to be controlled by the downstream
05726> # river cross-section for summer conditions.  It is was assumed that for up to
05727> # 0.75 m of water, the main channel of the river provided the storage.  Above
05728> # this depth, the wetland starts to significantly store water.
05729> #
05730> R0010: C00051-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05731>      ROUTE RESERVOIR  ->     1.0 02: S_N7         38743.00    65.819 No_date    44:06    20.85  n/a     .000
05732>                   out <=     1.0 01: RES_RF       38743.00    31.796 No_date    60:32    20.85  n/a     .000
05733>          {MaxStOked=.2597E+03   m3}
05734> R0010: C00052-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05735>      SAVE HYD                 1.0 01: RES_RF       38743.00    31.796 No_date    60:32    20.85  n/a     .000
05736>          fname : H_ResRF
05737>          remark: outflow of Richmond Fen
05738> #
05739> # Sum of hydrographs from Node 7 routed to Node 6
05740> # Section 5
05741> #
05742> R0010: C00053-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05743>      ROUTE CHANNEL    ->     1.0 02: RES_RF       38743.00    31.796 No_date    60:32    20.85  n/a     .000
05744>          [RDT= 1.00] out <-     1.0 01: N6         38743.00    31.737 No_date    62:00    20.85  n/a     .000
05745>          [L/S/n= 3056./ .082/.025]
05746>          {Vmax=   .477: Dmax=  .960}
05747> #
05748> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
05749> #
05750> R0010: C00054-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05751>      ADD HYD                  1.0 02: N6           38743.00    31.737 No_date    62:00    20.85  n/a     .000
05752>                         +     1.0 02: SW_6          165.00      .818 No_date    33:04    21.69  n/a     .000
05753>                         +     1.0 02: VG_DR        1332.00     6.069 No_date    35:17    24.81  n/a     .000
05754>                       SUM=    1.0 01: S_N6         40240.01    31.737 No_date    62:00    20.99  n/a     .000
05755> #
05756> # Sum of hydrographs from Node 6 routed to Node 5
05757> # Section 6
05758> #
05759> R0010: C00055-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05760>      ROUTE CHANNEL    ->     1.0 02: S_N6         40240.01    31.737 No_date    62:00    20.99  n/a     .000
05761>          [RDT= 1.00] out <-     1.0 01: N5         40240.01    31.713 No_date    62:48    20.99  n/a     .000
05762>          [L/S/n= 1852./ .054/.035]
05763>          {Vmax=   .412: Dmax= 1.069}
05764> #
05765> # Addition of Subwatershed 5 and Flowing Creek to Node 5
05766> #
05767> R0010: C00056-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05768>      ADD HYD                  1.0 02: N5           40240.01    31.713 No_date    62:48    20.99  n/a     .000
05769>                         +     1.0 02: SW_5          224.00     5.246 No_date    28:45    28.24  n/a     .000
05770>                         +     1.0 02: FL_CK        4945.00    28.945 No_date    33:21    25.91  n/a     .000
05771>                       SUM=    1.0 01: S_N5         45409.01    51.448 No_date    34:54    21.56  n/a     .000
05772> #
05773> # Sum of hydrographs from Node 5 routed to Node 5A
05774> # Section 7
05775> #
05776> R0010: C00057-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05777>      ROUTE CHANNEL    ->     1.0 02: S_N5         45409.01    51.448 No_date    34:54    21.56  n/a     .000
05778>          [RDT= 1.00] out <-     1.0 01: N5A        45409.01    51.312 No_date    35:12    21.56  n/a     .000
05779>          [L/S/n=  556./ .090/.040]
05780>          {Vmax=   .485: Dmax= 1.131}
05781> #
05782> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
05783> #
05784> R0010: C00058-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05785>      ADD HYD                  1.0 02: N5A          45409.01    51.312 No_date    35:12    21.56  n/a     .000
05786>                         +     1.0 02: SW_5A2          20.00      .614 No_date    28:36    31.37  n/a     .000
05787>                         +     1.0 02: SW_5A1        1412.00     5.817 No_date    37:54    27.06  n/a     .000
05788>                       SUM=    1.0 01: S_N5A        46841.01    56.788 No_date    35:22    21.73  n/a     .000
05789> #
05790> # Sum of hydrographs from Node 5A routed to Node 4
05791> # Section 8
05792> #
05793> R0010: C00059-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05794>      ROUTE CHANNEL    ->     1.0 02: S_N5A        46841.01    56.788 No_date    35:22    21.73  n/a     .000
05795>          [RDT= 1.00] out <-     1.0 01: N4         46841.01    54.543 No_date    36:56    21.73  n/a     .000
05796>          [L/S/n= 4630./ .043/.035]
05797>          {Vmax=   .793: Dmax= 3.295}
05798> #
05799> # Addition of Subwatershed 4 and Leamy Creek to Node 4
05800> #
05801> R0010: C00060-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05802>      ADD HYD                  1.0 02: N4           46841.01    54.543 No_date    36:56    21.73  n/a     .000
05803>                         +     1.0 02: SW_4          585.00     8.458 No_date    29:57    31.37  n/a     .000
05804>                         +     1.0 02: LM_CK        1021.00    11.195 No_date    30:48    30.72  n/a     .000
05805>                       SUM=    1.0 01: S_N4         48447.00    59.934 No_date    36:12    22.03  n/a     .000
05806> R0010: C00061-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05807>      SAVE HYD                 1.0 01: S_N4         48447.00    59.934 No_date    36:12    22.03  n/a     .000
05808>          fname : S_N4. 0010
05809>          remark: flow at S_N4
05810> #
05811> # Sum of hydrographs from Node 4 routed to Node 2
05812> # Section 9
05813> #
05814> R0010: C00062-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05815>      ROUTE CHANNEL    ->     1.0 02: S_N4         48447.00    59.934 No_date    36:12    22.03  n/a     .000
05816>          [RDT= 1.00] out <-     1.0 01: N2         48447.00    59.699 No_date    36:35    22.03  n/a     .000
05817>          [L/S/n= 1667./ .060/.040]
05818>          {Vmax=   .824: Dmax= 3.325}
05819> #
05820> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
05821> #
05822> R0010: C00063-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05823>      ADD HYD                  1.0 02: N2           48447.00    59.699 No_date    36:35    22.03  n/a     .000
05824>                         +     1.0 02: SW_2          177.00     4.146 No_date    28:45    28.24  n/a     .000
05825>                         +     1.0 02: SM_DR        1122.00    10.275 No_date    31:46    31.37  n/a     .000
05826>                         +     1.0 02: MO_DR        2737.00    22.669 No_date    31:32    27.64  n/a     .000
05827>                       SUM=    1.0 01: S_N2         52483.00    83.235 No_date    33:15    22.55  n/a     .000
05828> R0010: C00064-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05829>      SAVE HYD                 1.0 01: S_N2         52483.00    83.235 No_date    33:15    22.55  n/a     .000
05830>          fname : H_SN2
05831>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
05832> #
05833> # Sum of hydrographs from Node 2 routed to Node 1
05834> # Section 10
05835> #
05836> #*******************************************************************************
05837> #
05838> # Hydrograph from Node 2 routed to Node 416
05839> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
05840> #
05841> R0010: C00065-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05842>      ROUTE CHANNEL    ->     1.0 02: S_N2         52483.00    83.235 No_date    33:15    22.55  n/a     .000
05843>          [RDT= 1.00] out <-     1.0 01: N_416      52483.00    81.216 No_date    34:18    22.55  n/a     .000
05844>          [L/S/n= 2327./ .050/.055]
05845>          {Vmax=   .705: Dmax= 2.943}
05846> #*******************************************************************************
05847> #     Catchment SW1a
05848> #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
05849> #     - Undeveloped agricultural land
05850> #*******************************************************************************
05851> R0010: C00066-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05852>      CONTINUOUS NASHYD        1.0 01: SW_1a        536.42     3.888 No_date    31:17    23.57  .364     .000
05853>          [CN= 72.0: N= 3.00: Tp= 2.79]
05854>          [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
05855>          [InterEventTime=  12.00]
05856> R0010: C00067-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05857>      CONTINUOUS STANDHYD      1.0 01: S-1-Okeefe    44.93     5.420 No_date    28:03    48.63  .752     .000
05858>          [XI MP=. 65: TI MP=. 65]
05859>          [LOSS= 2 : CN= 75.0]
05860>          [Pervious        area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
05861>          [Impervious      area: IAimp= 1. 57: SLPI =. 75: LGI = 547. : MNI=. 013: SCI =    .0]
05862>          [IaRECimp=   4. 00: IaRECper=    4. 00]
05863>          [SMN= 33. 81: SMX=225. 43: SK=  .010]
05864> R0010: C00068-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05865>      ADD HYD                  1.0 02: N_416        52483.00    81.216 No_date    34:18    22.55  n/a     .000
05866>                         +     1.0 02: SW_1a          536.42     3.888 No_date    31:17    23.57  n/a     .000
05867>                         +     1.0 02: S-1-Okeefe      44.93     5.420 No_date    28:03    48.63  n/a     .000
05868>                       SUM=    1.0 01: SN_416       53064.36    84.144 No_date    33:41    22.58  n/a     .000
05869> R0010: C00069-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05870>      SAVE HYD                 1.0 01: SN_416       53064.36    84.144 No_date    33:41    22.58  n/a     .000
05871>          fname : SN_416. 0010
05872>          remark: Total Flows at Highway 416
05873> #
05874> # Hydrograph from Node 416 routed to Node at Okeefe drain
05875> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
05876> #
05877> R0010: C00070-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05878>      ROUTE CHANNEL    ->     1.0 02: SN_416       53064.36    84.144 No_date    33:41    22.58  n/a     .000
05879>          [RDT= 1.00] out <-     1.0 01: N_OK         53064.36    84.064 No_date    33:41    22.58  n/a     .000
05880>          [L/S/n=  497./ .302/.055]
05881>          {Vmax= 1.450: Dmax= 2.495}
05882> #*******************************************************************************
05883> #     Catchment OKEEFE
05884> #     - To O'Keefe drain (north of the Jock)
05885> #     - Developed with assumed 43% imp.
05886> #     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
05887> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
05888> #*******************************************************************************
05889> R0010: C00071-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05890>      CONTINUOUS NASHYD        1.0 01: O-1          63.72      .684 No_date    28:58    17.24  .266     .000
05891>          [CN= 61.0: N= 3.00: Tp=  .90]
05892>          [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK=  .010]
05893>          [InterEventTime=  12.00]
05894> R0010: C00072-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05895>      ROUTE CHANNEL    ->     1.0 02: O-1          63.72      .684 No_date    28:58    17.24  n/a     .000
05896>          [RDT= 1.00] out <-     1.0 01: O-1R         63.72      .637 No_date    29:17    17.24  n/a     .000
05897>          [L/S/n=  960./ .630/.043]
05898>          {Vmax=   .755: Dmax=  .334}
05899> R0010: C00073-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05900>      CONTINUOUS NASHYD        1.0 01: O-2          28.61      .242 No_date    29:13    16.01  .248     .000
05901>          [CN= 57.0: N= 3.00: Tp= 1.10]
05902>          [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK=  .010]
05903>          [InterEventTime=  12.00]
05904> R0010: C00074-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05905>      CONTINUOUS NASHYD        1.0 01: O-4          46.94      .303 No_date    29:00    12.15  .188     .000
05906>          [CN= 49.0: N= 3.00: Tp=  .90]
05907>          [IaREC= 4.00: SMN=104.59: SMX=697.25: SK=  .010]
05908>          [InterEventTime=  12.00]
05909> R0010: C00075-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05910>      ADD HYD                  1.0 02: O-1R         63.72      .637 No_date    29:17    17.24  n/a     .000
05911>                         +     1.0 02: O-2          28.61      .242 No_date    29:13    16.01  n/a     .000
05912>                         +     1.0 02: O-4          46.94      .303 No_date    29:00    12.15  n/a     .000
05913>                       SUM=    1.0 01: OKF-N       139.27     1.172 No_date    29:12    15.27  n/a     .000
05914> R0010: C00076-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05915>      ROUTE CHANNEL    ->     1.0 02: OKF-N        139.27     1.172 No_date    29:12    15.27  n/a     .000
05916>          [RDT= 1.00] out <-     1.0 01: OKF-NR       139.27     1.170 No_date    29:16    15.27  n/a     .000
05917>          [L/S/n=  210./ .810/.043]
05918>          {Vmax=   .916: Dmax=  .609}
05919> R0010: C00077-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05920>      CONTINUOUS NASHYD        1.0 01: O-6          16.46      .101 No_date    28:45    10.60  .164     .000
05921>          [CN= 43.0: N= 3.00: Tp=  .70]
05922>          [IaREC= 4.00: SMN=134.47: SMX=896.47: SK=  .010]
05923>          [InterEventTime=  12.00]
05924> R0010: C00078-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05925>      CONTINUOUS STANDHYD      1.0 01: O-3          39.67      .767 No_date    28:24    19.36  .299     .000
05926>          [XI MP=. 15: TI MP=. 30]
05927>          [LOSS= 2 : CN= 50.0]
05928>          [Pervious        area: IAper= 4. 67: SLPP=  . 32: LGP=  440. : MNP=. 035: SCP=    .0]
05929>          [Impervious      area: IAimp= 1. 57: SLPI =  . 32: LGI =1880. : MNI=. 013: SCI =    .0]
05930>          [IaRECimp=   4. 00: IaRECper=    4. 00]
05931>          [SMN= 99. 77: SMX=665. 12: SK=  .010]
05932> R0010: C00079-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05933>      CONTINUOUS STANDHYD      1.0 01: O-5          60.63     1.881 No_date    28:10    22.00  .340     .000
05934>          [XI MP=. 13: TI MP=. 26]
05935>          [LOSS= 2 : CN= 61.0]
05936>          [Pervious        area: IAper= 4. 67: SLPP=1. 38: LGP= 550. : MNP=. 035: SCP=    .0]
05937>          [Impervious      area: IAimp= 1. 57: SLPI =1. 38: LGI =1450. : MNI=. 013: SCI =    .0]
05938>          [IaRECimp=   4. 00: IaRECper=    4. 00]
05939>          [SMN= 64. 50: SMX=430. 01: SK=  .010]
05940> R0010: C00080-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05941>      ADD HYD                  1.0 02: OKF-NR       139.27     1.170 No_date    29:16    15.27  n/a     .000
05942>                         +     1.0 02: O-3          39.67      .767 No_date    28:24    19.36  n/a     .000
05943>                         +     1.0 02: O-5          60.63     1.881 No_date    28:10    22.00  n/a     .000
05944>                         +     1.0 02: O-6          16.46      .101 No_date    28:45    10.60  n/a     .000
05945>                       SUM=    1.0 01: PT1         256.03     3.008 No_date    28:23    17.20  n/a     .000
05946> R0010: C00081-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05947>      CONTINUOUS NASHYD        1.0 01: O-7           5.28      .056 No_date    28:37    14.05  .217     .000
05948>          [CN= 54.0: N= 3.00: Tp=  .60]
05949>          [IaREC= 4.00: SMN= 87.01: SMX=580.07: SK=  .010]
05950>          [InterEventTime=  12.00]
05951> R0010: C00082-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05952>      ADD HYD                  1.0 02: PT1          256.03     3.008 No_date    28:23    17.20  n/a     .000
05953>                         +     1.0 02: O-7            5.28      .056 No_date    28:37    14.05  n/a     .000
05954>                       SUM=    1.0 01: FF           261.31     3.058 No_date    28:23    17.14  n/a     .000
05955> R0010: C00083-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05956>      ROUTE CHANNEL    ->     1.0 02: FF           261.31     3.058 No_date    28:23    17.14  n/a     .000
05957>          [RDT= 1.00] out <-     1.0 01: DRAINI       261.31     2.972 No_date    28:31    17.14  n/a     .000
05958>          [L/S/n=  302./ 1.000/.043]
05959>          {Vmax=   .783: Dmax=  .667}
05960> R0010: C00084-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05961>      CONTINUOUS NASHYD        1.0 01: DI            1.17      .058 No_date    28:12    29.30  .453     .000
05962>          [CN= 84.0: N= 3.00: Tp=  .28]
05963>          [IaREC= 4.00: SMN= 21.09: SMX=140.62: SK=  .010]
05964>          [InterEventTime=  12.00]
05965> R0010: C00085-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05966>      CONTINUOUS STANDHYD      1.0 01: AI           2.50      .391 No_date    28:01    50.29  .777     .000
05967>          [XI MP=. 68: TI MP=. 85]
05968>          [Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:     F=  .00]
05969>          [Pervious        area: IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    .0]
05970>          [Impervious      area: IAimp= 1. 57: SLPI =  . 50: LGI =  224. : MNI=. 013: SCI =    .0]
05971>          [IaRECimp=   4. 00: IaRECper=    4. 00]
05972> R0010: C00086-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05973>      ROUTE RESERVOIR  ->     1.0 02: AI           2.50      .391 No_date    28:01    50.29  n/a     .000
05974>                   out <=     1.0 01: AI-STR       2.50      .098 No_date    28:24    50.29  n/a     .000
05975>              overflow <=     1.0 01: AI-OVF        .00      .000 No_date    0:00      .00  n/a     .000
05976>          {MaxStOked=. 5829E-01   m3,  Tot Ovf Vol=. 0000E+00   m3,  % Ovf=    0,  Tot Dur Ovf=    0. hrs}
05977> R0010: C00087-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05978>      CONTINUOUS STANDHYD      1.0 01: ST-2          .59      .075 No_date    28:00    38.69  .598     .000
05979>          [XI MP=. 46: TI MP=. 57]
05980>          [Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:     F=  .00]
05981>          [Pervious        area: IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    .0]
05982>          [Impervious      area: IAimp= 1. 57: SLPI =  . 50: LGI =  109. : MNI=. 013: SCI =    .0]
05983>          [IaRECimp=   4. 00: IaRECper=    4. 00]
05984> R0010: C00088-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
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05985>     ROUTE RESERVOIR -> 1. 0 02: ST- 2          .59      .075 No_date   28: 00   38. 69  n/a      .000
05986>                 out <=  1. 0 01: ST2STR        .59      .052 No_date   28: 05   38. 69  n/a      .000
05987>              overflow <=  1. 0 03: ST2OVF      .00      .000 No_date   0: 00     .00  n/a      .000
05988>     {MsStolked=.1835E-02  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
05989> R0010: C00089------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
05990>     CONTI NUOUS NASHYD      1. 0 01: O 8           60. 55      .857 No_date   29: 04   22. 40  .346     .000
05991>     [ CN= 69. 0: N= 3. 00:  Tp=  1. 00]
05992>     [ IaREC= 4. 00: SM N= 44. 82:  SMX= 298. 82:  SK=  .010]
05993>     [ InterEvent Time=  12. 00]
05994> R0010: C00090------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
05995>     ROUTE PI PE             ->  1. 0 02: O 8           60. 55      .857 No_date   29: 04   22. 40  n/a      .000
05996>     [ RDT= 1. 00]  out <-       1. 0 01: OKPI PE       60. 55      .852 No_date   29: 08   22. 40  n/a      .000
05997>     [ L/ S/ n=  335. / . 100/ . 013]
05998>     [ Vmax=  1. 080: Dmax=  . 441]
05999>     [ HGT H=  . 20: WI TH=  1. 80]
06000> R0010: C00091------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06001>     ADD HYD                 1. 0 02: DRAI N1      261. 31    2. 972 No_date   28: 31   17. 14  n/a      .000
06002>                         +   1. 0 02: DI            1. 17      .058 No_date   28: 12   29. 30  n/a      .000
06003>                         +   1. 0 02: AI - STR      2. 50      .098 No_date   28: 24   50. 29  n/a      .000
06004>                         +   1. 0 02: AI - OVF       .00      .000 No_date   0: 00     .00  n/a      .000
06005>                         +   1. 0 02: ST2STR         .59      .052 No_date   28: 05   38. 69  n/a      .000
06006>                         +   1. 0 02: ST2OVF         .00      .000 No_date   0: 00     .00  n/a      .000
06007>                         +   1. 0 02: OKPI PE       60. 55      .852 No_date   29: 08   22. 40  n/a      .000
06008>                     STUMe   1. 0 01: ST2- 1 N      326. 12    3. 771 No_date   28: 40   18. 45  n/a      .000
06009> R0010: C00092------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06010>     CONTI NUOUS STANDHYD    1. 0 01: A7            3. 51      .538 No_date   28: 01   50. 29  .777     .000
06011>     [ XI M=  . 68: TI MP=  . 85]
06012>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06013>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06014>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =  265. : MNI =. 013: SCI =    . 0]
06015>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06016> R0010: C00093------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06017>     ROUTE RESERVOIR ->      1. 0 02: A7            3. 51      .538 No_date   28: 01   50. 29  n/a      .000
06018>                 out <=  1. 0 01: A7- STR       3. 51      .139 No_date   28: 25   50. 29  n/a      .000
06019>              overflow <=  1. 0 03: A7- OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06020>     {MsStolked=.8167E-01  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06021> R0010: C00094------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06022>     CONTI NUOUS STANDHYD    1. 0 01: ST- 3          .71      .089 No_date   28: 00   38. 69  .598     .000
06023>     [ XI M=  . 46: TI MP=  . 57]
06024>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06025>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06026>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =  119. : MNI =. 013: SCI =    . 0]
06027>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06028> R0010: C00095------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06029>     ROUTE RESERVOIR ->      1. 0 02: ST- 3          .71      .089 No_date   28: 00   38. 69  n/a      .000
06030>                 out <=  1. 0 01: ST3STR        .71      .063 No_date   28: 05   38. 69  n/a      .000
06031>              overflow <=  1. 0 03: ST3OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06032>     {MsStolked=.3938E-02  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06033> R0010: C00096------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06034>     ADD HYD                 1. 0 02: ST2- 1 N      326. 12    3. 771 No_date   28: 40   18. 45  n/a      .000
06035>                         +   1. 0 02: AI - STR      2. 51      .139 No_date   28: 25   50. 29  n/a      .000
06036>                         +   1. 0 02: AI - OVF       .00      .000 No_date   0: 00     .00  n/a      .000
06037>                         +   1. 0 02: ST3STR         .71      .063 No_date   28: 05   38. 69  n/a      .000
06038>                         +   1. 0 02: ST3OVF         .00      .000 No_date   0: 00     .00  n/a      .000
06039>                     SUMe    1. 0 01: PT2ST3        330. 34    3. 914 No_date   28: 39   18. 83  n/a      .000
06040> R0010: C00097------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06041>     ROUTE CHANNEL           ->  1. 0 02: PT2ST3        330. 34    3. 914 No_date   28: 39   18. 83  n/a      .000
06042>     [ RDT= 1. 00]  out <-       1. 0 01: DRAI N2      330. 34    3. 640 No_date   29: 01   18. 83  n/a      .000
06043>     [ L/ S/ n=  592. / . 230/ . 043]
06044>     [ Vmax=  . 582: Dmax=  1. 002]
06045> R0010: C00098------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06046>     CONTI NUOUS NASHYD      1. 0 01: D2            2. 28      .046 No_date   29: 04   29. 30  .453     .000
06047>     [ CN=  84. 0: N=  3. 00:  Tp=  . 99]
06048>     [ IaREC=  4. 00: SM N=  21. 09:  SMX= 140. 62:  SK=  .010]
06049>     [ InterEvent Time=  12. 00]
06050> R0010: C00099------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06051>     CONTI NUOUS STANDHYD    1. 0 01: AI 7          12. 04    1. 618 No_date   28: 04   50. 29  .777     .000
06052>     [ XI M=  . 68: TI MP=  . 85]
06053>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06054>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06055>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =  491. : MNI =. 013: SCI =    . 0]
06056>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06057> R0010: C00100------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06058>     ROUTE RESERVOIR ->      1. 0 02: AI 7          12. 04    1. 618 No_date   28: 04   50. 29  n/a      .000
06059>                 out <=  1. 0 01: AI 7STR       12. 04      .460 No_date   28: 31   50. 29  n/a      .000
06060>              overflow <=  1. 0 03: AI 7OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06061>     {MsStolked=.2771E+00  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06062> R0010: C00101------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06063>     CONTI NUOUS STANDHYD    1. 0 01: ST- 4          .35      .046 No_date   28: 00   38. 69  .598     .000
06064>     [ XI M=  . 46: TI MP=  . 57]
06065>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06066>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06067>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =   84. : MNI =. 013: SCI =    . 0]
06068>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06069> R0010: C00102------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06070>     ROUTE RESERVOIR ->      1. 0 02: ST- 4          .35      .046 No_date   28: 00   38. 69  n/a      .000
06071>                 out <=  1. 0 01: ST4STR        .35      .031 No_date   28: 04   38. 69  n/a      .000
06072>              overflow <=  1. 0 03: ST4OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06073>     {MsStolked=.1424E-02  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06074> R0010: C00103------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06075>     CONTI NUOUS STANDHYD    1. 0 01: AI 8          5. 30      .780 No_date   28: 02   50. 29  .777     .000
06076>     [ XI M=  . 68: TI MP=  . 85]
06077>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06078>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06079>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =  326. : MNI =. 013: SCI =    . 0]
06080>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06081> R0010: C00104------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06082>     ROUTE RESERVOIR ->      1. 0 02: AI 8          5. 30      .780 No_date   28: 02   50. 29  n/a      .000
06083>                 out <=  1. 0 01: AI 8STR       5. 30      .206 No_date   28: 27   50. 29  n/a      .000
06084>              overflow <=  1. 0 03: AI 8OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06085>     {MsStolked=.1232E+00  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06086> R0010: C00105------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06087>     ADD HYD                 1. 0 02: DRAI N2      330. 34    3. 640 No_date   29: 01   18. 83  n/a      .000
06088>                         +   1. 0 02: D2            2. 28      .046 No_date   29: 04   29. 30  n/a      .000
06089>                         +   1. 0 02: AI 7STR      12. 04      .460 No_date   28: 31   50. 29  n/a      .000
06090>                         +   1. 0 02: AI 7OVF       .00      .000 No_date   0: 00     .00  n/a      .000
06091>                         +   1. 0 02: ST4STR         .35      .031 No_date   28: 04   38. 69  n/a      .000
06092>                         +   1. 0 02: ST4OVF         .00      .000 No_date   0: 00     .00  n/a      .000
06093>                         +   1. 0 02: AI 8STR        5. 30      .206 No_date   28: 27   50. 29  n/a      .000
06094>                         +   1. 0 02: AI 8OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06095>                     SUMe    1. 0 01: PT3ST4        350. 31    4. 213 No_date   28: 57   20. 48  n/a      .000
06096> R0010: C00106------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06097>     ROUTE CHANNEL           ->  1. 0 02: PT3ST4        350. 31    4. 213 No_date   28: 57   20. 48  n/a      .000
06098>     [ RDT= 1. 00]  out <-       1. 0 01: DRAI N3      350. 31    4. 037 No_date   29: 17   20. 48  n/a      .000
06099>     [ L/ S/ n=  525. / . 230/ . 043]
06100>     [ Vmax=  . 606: Dmax=  1. 049]
06101> R0010: C00107------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06102>     CONTI NUOUS NASHYD      1. 0 01: D3            2. 51      .072 No_date   28: 44   32. 13  .497     .000
06103>     [ CN=  86. 0: N=  3. 00:  Tp=  . 73]
06104>     [ IaREC=  4. 00: SM N=  17. 43:  SMX= 116. 21:  SK=  .010]
06105>     [ InterEvent Time=  12. 00]
06106> R0010: C00108------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06107>     CONTI NUOUS STANDHYD    1. 0 01: C1            3. 41      .523 No_date   28: 01   50. 29  .777     .000
06108>     [ XI M=  . 68: TI MP=  . 85]
06109>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06110>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06111>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =  261. : MNI =. 013: SCI =    . 0]
06112>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06113> R0010: C00109------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06114>     ROUTE RESERVOIR ->      1. 0 02: C1            3. 41      .523 No_date   28: 01   50. 29  n/a      .000
06115>                 out <=  1. 0 01: C1- STR       3. 41      .133 No_date   28: 25   50. 29  n/a      .000
06116>              overflow <=  1. 0 03: C1- OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06117>     {MsStolked=.7930E-01  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06118> R0010: C00110------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06119>     CONTI NUOUS STANDHYD    1. 0 01: ST- 5          .45      .058 No_date   28: 00   38. 69  .598     .000
06120>     [ XI M=  . 46: TI MP=  . 57]
06121>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06122>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06123>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =   95. : MNI =. 013: SCI =    . 0]
06124>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06125> R0010: C00111------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06126>     ROUTE RESERVOIR ->      1. 0 02: ST- 5          .45      .058 No_date   28: 00   38. 69  n/a      .000
06127>                 out <=  1. 0 01: ST5STR        .45      .040 No_date   28: 04   38. 69  n/a      .000
06128>              overflow <=  1. 0 03: ST5OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06129>     {MsStolked=.1552E-02  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06130> R0010: C00112------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06131>     ADD HYD                 1. 0 02: DRAI N3      350. 31    4. 037 No_date   29: 17   20. 48  n/a      .000
06132>                         +   1. 0 02: DI            2. 51      .072 No_date   28: 44   32. 13  n/a      .000
06133>                         +   1. 0 02: C1- STR       3. 41      .133 No_date   28: 25   50. 29  n/a      .000
06134>                         +   1. 0 02: C1- OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06135>                         +   1. 0 02: ST5STR         .45      .040 No_date   28: 04   38. 69  n/a      .000
06136>                         +   1. 0 02: ST5OVF         .00      .000 No_date   0: 00     .00  n/a      .000
06137>                     SUMe    1. 0 01: ST5- E        356. 68    4. 181 No_date   29: 15   20. 87  n/a      .000
06138> R0010: C00113------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06139>     CONTI NUOUS STANDHYD    1. 0 01: STRAND        7. 59      .759 No_date   28: 11   49. 05  .789     .000
06140>     [ XI M=  . 64: TI MP=  . 85]
06141>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06142>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    . 0]
06143>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =1230. : MNI =. 013: SCI =    . 0]
06144>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06145> R0010: C00114------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06146>     ROUTE RESERVOIR ->      1. 0 02: STRAND        7. 59      .759 No_date   28: 11   49. 05  n/a      .000
06147>                 out <=  1. 0 01: S- POND       7. 59      .066 No_date   29: 41   49. 05  n/a      .000
06148>              overflow <=  1. 0 03: S- OVF         .00      .000 No_date   0: 00     .00  n/a      .000
06149>     {MsStolked=.2593E+00  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06150> R0010: C00115------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06151>     ADD HYD                 1. 0 02: ST5- E        356. 68    4. 181 No_date   29: 15   20. 87  n/a      .000
06152>                         +   1. 0 02: S- POND       7. 59      .066 No_date   29: 41   49. 05  n/a      .000
06153>                         +   1. 0 02: S- OVF         .00      .000 No_date   0: 00     .00  n/a      .000
06154>                     SUMe    1. 0 01: SSAOUT        364. 27    4. 242 No_date   29: 15   21. 45  n/a      .000
06155> R0010: C00116------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06156>     SAVE HYD                1. 0 01: SSAOUT        364. 27    4. 242 No_date   29: 15   21. 45  n/a      .000
06157>     fname : SSAOUT. 0010
06158>     remark: SSAOUT
06159> R0010: C00117------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06160>     CONTI NUOUS STANDHYD    1. 0 01: Area- A       66. 75      6. 470 No_date   28: 10   48. 24  .746     .000
06161>     [ XI M=  . 64: TI MP=  . 80]
06162>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06163>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06164>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =1155. : MNI =. 013: SCI =    . 0]
06165>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06166> R0010: C00118------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06167>     SAVE HYD                1. 0 01: Area- A       66. 75      6. 470 No_date   28: 10   48. 24  n/a      .000
06168>     fname : Area- A 0010
06169>     remark: SMWF- A Inflow
06170> R0010: C00119------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06171>     ROUTE RESERVOIR ->      1. 0 02: Area- A       66. 75      6. 470 No_date   28: 10   48. 24  n/a      .000
06172>                 out <=  1. 0 01: SWMF- A       66. 75      .465 No_date   29: 54   48. 24  n/a      .000
06173>              overflow <=  1. 0 03: SWMOV         .00      .000 No_date   0: 00     .00  n/a      .000
06174>     {MsStolked=.2359E+01  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06175> R0010: C00120------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06176>     SAVE HYD                1. 0 01: SWMF- A       66. 75      .465 No_date   29: 54   48. 24  n/a      .000
06177>     fname : SWMF- A 0010
06178>     remark: SMWF- A Outflow
06179> R0010: C00121------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06180>     ADD HYD                 1. 0 02: SSAOUT        364. 27    4. 242 No_date   29: 15   21. 45  n/a      .000
06181>                         +   1. 0 02: SWMF- A       66. 75      .465 No_date   29: 54   48. 24  n/a      .000
06182>                         +   1. 0 02: SWMOV         .00      .000 No_date   0: 00     .00  n/a      .000
06183>                     SUMe    1. 0 02: PT4STS        431. 02    4. 657 No_date   29: 18   25. 60  n/a      .000
06184> R0010: C00122------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06185>     CONTI NUOUS STANDHYD    1. 0 01: C6            1. 87      .301 No_date   28: 01   50. 29  .777     .000
06186>     [ XI M=  . 68: TI MP=  . 85]
06187>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06188>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06189>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =  193. : MNI =. 013: SCI =    . 0]
06190>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06191> R0010: C00123------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06192>     ROUTE RESERVOIR ->      1. 0 02: C6            1. 87      .301 No_date   28: 01   50. 29  n/a      .000
06193>                 out <=  1. 0 01: C6- STR       1. 87      .074 No_date   28: 22   50. 29  n/a      .000
06194>              overflow <=  1. 0 03: C6- OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06195>     {MsStolked=.4376E-01  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06196> R0010: C00124------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06197>     CONTI NUOUS STANDHYD    1. 0 01: C7            1. 62      .262 No_date   28: 01   50. 29  .777     .000
06198>     [ XI M=  . 68: TI MP=  . 85]
06199>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06200>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06201>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =  180. : MNI =. 013: SCI =    . 0]
06202>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06203> R0010: C00125------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06204>     ROUTE RESERVOIR ->      1. 0 02: C7            1. 62      .262 No_date   28: 01   50. 29  n/a      .000
06205>                 out <=  1. 0 01: C7- STR       1. 62      .064 No_date   28: 22   50. 29  n/a      .000
06206>              overflow <=  1. 0 03: C7- OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06207>     {MsStolked=.3781E-01  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06208> R0010: C00126------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06209>     CONTI NUOUS STANDHYD    1. 0 01: ST- 6           .41      .053 No_date   28: 00   38. 69  .598     .000
06210>     [ XI M=  . 46: TI MP=  . 57]
06211>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06212>     [ Pervious      area:  IAper=  4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    . 0]
06213>     [ Impervious    area:  IAimp=  1. 57: SLPI =  . 50: LGI =   91. : MNI =. 013: SCI =    . 0]
06214>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06215> R0010: C00127------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06216>     ROUTE RESERVOIR ->      1. 0 02: ST- 6           .41      .053 No_date   28: 00   38. 69  n/a      .000
06217>                 out <=  1. 0 01: ST6STR        .41      .036 No_date   28: 04   38. 69  n/a      .000
06218>              overflow <=  1. 0 03: ST6OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06219>     {MsStolked=.1514E-02  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06220> R0010: C00128------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06221>     ADD HYD                 1. 0 02: PT4STS        431. 02    4. 657 No_date   29: 18   25. 60  n/a      .000
06222>                         +   1. 0 02: C6- STR       1. 87      .074 No_date   28: 22   50. 29  n/a      .000
06223>                         +   1. 0 02: C6- OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06224>                         +   1. 0 02: C7- STR       1. 62      .064 No_date   28: 22   50. 29  n/a      .000
06225>                         +   1. 0 02: C7- OVF        .00      .000 No_date   0: 00     .00  n/a      .000
06226>                         +   1. 0 02: ST6STR         .41      .036 No_date   28: 04   38. 69  n/a      .000
06227>                         +   1. 0 02: ST6OVF         .00      .000 No_date   0: 00     .00  n/a      .000
06228>                     SUMe    1. 0 01: PT5STS        434. 92    4. 740 No_date   29: 18   25. 81  n/a      .000
06229> R0010: C00129------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06230>     ROUTE CHANNEL           ->  1. 0 02: PT5STS        434. 92    4. 740 No_date   29: 18   25. 81  n/a      .000
06231>     [ RDT= 1. 00]  out <-       1. 0 01: DRAI N4      434. 92    4. 599 No_date   29: 31   25. 81  n/a      .000
06232>     [ L/ S/ n=  324. / . 100/ . 043]
06233>     [ Vmax=  . 468: Dmax=  1. 312]
06234> R0010: C00130------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06235>     CONTI NUOUS NASHYD      1. 0 01: D4            1. 73      .063 No_date   28: 35   34. 48  .533     .000
06236>     [ CN=  88. 0: N=  3. 00:  Tp=  . 60]
06237>     [ IaREC=  4. 00: SM N=  14. 94:  SMX=  99. 61:  SK=  .010]
06238>     [ InterEvent Time=  12. 00]
06239> R0010: C00131------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06240>     CONTI NUOUS STANDHYD    1. 0 01: Area- B       24. 04      3. 287 No_date   28: 03   47. 09  .728     .000
06241>     [ XI M=  . 62: TI MP=  . 77]
06242>     [ Hort on parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:   Fi=  . 00]
06243>     [ Pervious      area:  IAper=  4. 67: SLPP=1. 40: LGP=   50. : MNP=. 250: SCP=    . 0]
06244>     [ Impervious    area:  IAimp=  1. 57: SLPI =1. 40: LGI =  693. : MNI =. 013: SCI =    . 0]
06245>     [ IaREC mp=   4. 00:  IaREC per=   4. 00]
06246> R0010: C00132------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06247>     ROUTE RESERVOIR ->      1. 0 02: Area- B       24. 04      3. 287 No_date   28: 03   47. 09  n/a      .000
06248>                 out <=  1. 0 01: SWMBOUT       24. 04      .356 No_date   28: 50   47. 09  n/a      .000
06249>              overflow <=  1. 0 03: SWMBOVF        .00      .000 No_date   0: 00     .00  n/a      .000
06250>     {MsStolked=.7142E+00  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06251> R0010: C00133------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06252>     ADD HYD                 1. 0 02: DRAI N4      434. 92    4. 599 No_date   29: 31   25. 81  n/a      .000
06253>                         +   1. 0 02: D4            1. 73      .063 No_date   28: 35   34. 48  n/a      .000
06254>                         +   1. 0 02: SWMF- B       24. 04      .356 No_date   28: 50   47. 09  n/a      .000
06255>                         +   1. 0 02: SWMBOVF        .00      .000 No_date   0: 00     .00  n/a      .000
06256>                     SUMe    1. 0 01: D4- EX        460. 69    4. 958 No_date   29: 31   26. 95  n/a      .000
06257> R0010: C00134------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06258>     ROUTE CHANNEL           ->  1. 0 02: D4- EX        460. 69    4. 958 No_date   29: 31   26. 95  n/a      .000
06259>     [ RDT= 1. 00]  out <-       1. 0 01: DRAI N5      460. 69    4. 881 No_date   29: 37   26. 95  n/a      .000
06260>     [ L/ S/ n=  413. / . 160/ . 033]
06261>     [ Vmax=  . 599: Dmax=  . 896]
06262> R0010: C00135------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06263>     CONTI NUOUS NASHYD      1. 0 01: D5            1. 90      .057 No_date   28: 41   32. 13  .497     .000
06264>     [ CN=  86. 0: N=  3. 00:  Tp=  . 69]
06265>     [ IaREC=  4. 00: SM N=  17. 43:  SMX= 116. 21:  SK=  .010]
06266>     [ InterEvent Time=  12. 00]
06267> R0010: C00136------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06268>     CONTI NUOUS NASHYD      1. 0 01: O- 13SDF      9. 74      .371 No_date   28: 22   30. 32  .469     .000
06269>     [ CN=  81. 0: N=  3. 00:  Tp=  . 73]
06270>     [ IaREC=  4. 00: SM N=  25. 21:  SMX= 168. 09:  SK=  .010]
06271>     [ InterEvent Time=  12. 00]
06272> R0010: C00137------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06273>     ROUTE RESERVOIR ->      1. 0 02: O- 13SDF      9. 74      .371 No_date   28: 22   30. 32  n/a      .000
06274>                 out <=  1. 0 01: SDF           9. 74      .040 No_date   31: 17   30. 32  n/a      .000
06275>              overflow <=  1. 0 03: OWFSDF         .00      .000 No_date   0: 00     .00  n/a      .000
06276>     {MsStolked=.1596E+00  m3,  TotOrfVol=.0000E+00  m3,  N-Orf=     0,  TotDurOrf=     0. hrs}
06277> R0010: C00138------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06278>     ADD HYD                 1. 0 02: DRAI N5      460. 69    4. 881 No_date   29: 37   26. 95  n/a      .000
06279>                         +   1. 0 02: D5            1. 90      .057 No_date   28: 41   32. 13  n/a      .000
06280>                         +   1. 0 02: SDF           9. 74      .040 No_date   31: 17   30. 32  n/a      .000
06281>                     SUMe    1. 0 01: PT6MC        472. 33    4. 951 No_date   29: 37   27. 04  n/a      .000
06282> R0010: C00139------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06283>     CONTI NUOUS NASHYD      1. 0 01: O- 15        10. 67      .502 No_date   28: 13   29. 12  .450     .000
06284>     [ CN=  82. 0: N=  3. 00:  Tp=  . 80]
06285>     [ IaREC=  4. 00: SM N=  23. 09:  SMX= 153. 94:  SK=  .010]
06286>     [ InterEvent Time=  12. 00]
06287> R0010: C00140------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
06288>     ADD HYD                 1. 0 02: PT6MC        472. 33    4. 951 No_date   29: 37   
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06359>          [ Impervious      area: I Aimp= 1. 57: SLPI = . 50: LGI =1473. : MNI =. 013: SCI =    .0]
06360>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06361>          [ SMN= 36. 67: SMXx=244. 49: SK= . 010]
06362> #*************************************************************************
06363> #     Foster Pond
06364> #     - Rating curve obtained assuming 40ml/ha in 24 hours for quality control
06365> #       and a ratio of the catchment area to the West Clarke pond rating curve
06366> #       from the MSS for the next coordinates
06367> #*************************************************************************
06368> R0010: C00150- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06369>      ROUTE RESERVOI R ->      1. 0 02: FOSTER          325. 44     22. 870 No_date    28: 13    43. 99    n/ a      . 000
06370>                           out <=      1. 0 03: FOSTER_OUT      325. 44      6. 061 No_date    29: 06    43. 99    n/ a      . 000
06371>                      overflow <=      1. 0 03: FO- OVF           . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06372>      [ MxSt ol ked=. 5862E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
06373> R0010: C00151- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06374>      ADD HYD                  1. 0 02: P_FOS           325. 44      6. 061 No_date    29: 06    43. 99    n/ a      . 000
06375>                           +      1. 0 02: FO- OVF           . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06376>                      SUM=       1. 0 03: FOSTER_OUT      325. 44      6. 061 No_date    29: 06    43. 99    n/ a      . 000
06377> #*************************************************************************
06378> R0010: C00152- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06379>      CONTI NUOUS STANDHYD     1. 0 01: W_CLAR_BRA       73. 29      7. 523 No_date    28: 05    47. 94    . 741     . 000
06380>          [ XI M= . 60: TI MP= . 65]
06381>          [ LOSS= 2 : CN= 77. 0]
06382>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06383>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 50: LGI = 699. : MNI =. 013: SCI =    .0]
06384>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06385>          [ SMN= 31. 15: SMXx=207. 66: SK= . 010]
06386> R0010: C00153- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06387>      ROUTE RESERVOI R ->      1. 0 02: W_CLAR_BRA       73. 29      7. 523 No_date    28: 05    47. 94    n/ a      . 000
06388>                           out <=      1. 0 01: MS_P10           73. 29      1. 136 No_date    29: 00    47. 94    n/ a      . 000
06389>                      overflow <=      1. 0 03: P10- OVF          . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06390>      [ MxSt ol ked=. 1341E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
06391> R0010: C00154- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06392>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- FO- D2      4. 94       . 594 No_date    28: 01    43. 99    . 680     . 000
06393>          [ XI M= . 55: TI MP= . 55]
06394>          [ LOSS= 2 : CN= 74. 0]
06395>          [ Pervious       area: I Aper= 4. 67: SLPP= . 50: LGP=   40. : MNP=. 250: SCP=    .0]
06396>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 50: LGI = 181. : MNI =. 013: SCI =    .0]
06397>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06398>          [ SMN= 36. 67: SMXx=244. 49: SK= . 010]
06399> R0010: C00155- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06400>      ADD HYD                  1. 0 02: FOSTER_OUT      325. 44      6. 061 No_date    29: 06    43. 99    n/ a      . 000
06401>                           +      1. 0 02: S- 1- FO- D2      4. 94       . 594 No_date    28: 01    43. 99    n/ a      . 000
06402>                      SUM=       1. 0 01: 980             330. 38      6. 115 No_date    29: 04    43. 99    n/ a      . 000
06403> R0010: C00156- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06404>      SAVE HYD                 1. 0 01: 980             330. 38      6. 115 No_date    29: 04    43. 99    n/ a      . 000
06405>          fname : 980. 0010
06406>          remark: Total Flows at Station 980 on Foster Drain
06407> #
06408> # Hydrograph from Node Foster SWM ( Station 980) to Node at station 520
06409> # Channel X- Section obtained from RVCA Hydraulic Model - Station 980
06410> #
06411> R0010: C00157- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06412>      ROUTE CHANNEL    ->      1. 0 02: 980             330. 38      6. 115 No_date    29: 04    43. 99    n/ a      . 000
06413>          [ RDT= 1. 00] out <-      1. 0 01: 980- out        330. 38      5. 914 No_date    29: 09    43. 99    n/ a      . 000
06414>          [ L/ S/ n=   460. /  . 043/ . 035]
06415>          [ Vmax=   . 634: Dmax= 1. 381]
06416> R0010: C00158- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06417>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- FO- DI      5. 11       . 702 No_date    28: 00    48. 24    . 746     . 000
06418>          [ XI M= . 65: TI MP= . 65]
06419>          [ LOSS= 2 : CN= 74. 0]
06420>          [ Pervious       area: I Aper= 4. 67: SLPP= . 50: LGP=   40. : MNP=. 250: SCP=    .0]
06421>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 50: LGI = 185. : MNI =. 013: SCI =    .0]
06422>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06423>          [ SMN= 36. 67: SMXx=244. 49: SK= . 010]
06424> R0010: C00159- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06425>      ADD HYD                  1. 0 02: 980- out        330. 38      5. 914 No_date    29: 09    43. 99    n/ a      . 000
06426>                           +      1. 0 02: S- 1- FO- DI      5. 11       . 702 No_date    28: 00    48. 24    n/ a      . 000
06427>                      SUM=       1. 0 02: 520             335. 49      5. 966 No_date    29: 09    44. 05    n/ a      . 000
06428> R0010: C00160- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06429>      SAVE HYD                 1. 0 01: 520             335. 49      5. 966 No_date    29: 09    44. 05    n/ a      . 000
06430>          fname : 520. 0010
06431>          remark: Total Flows at Station 520 on Foster Drain
06432> # Hydrograph from Node at Station 520 ( Foster Drain) to Node at station 6016 ( Jock River)
06433> # Channel X- Section obtained from RVCA Hydraulic Model - Station 520
06434> #
06435> R0010: C00161- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06436>      ROUTE CHANNEL    ->      1. 0 02: 520             335. 49      5. 966 No_date    29: 09    44. 05    n/ a      . 000
06437>          [ RDT= 1. 00] out <-      1. 0 01: 520- out        335. 49      5. 922 No_date    29: 29    44. 05    n/ a      . 000
06438>          [ L/ S/ n=   860. /  . 587/ . 035]
06439>          [ Vmax=  1. 391: Dmax=   . 659]
06440> R0010: C00162- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06441>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- FO- F_D     14. 96      1. 881 No_date    28: 02    48. 24    . 746     . 000
06442>          [ XI M= . 65: TI MP= . 65]
06443>          [ LOSS= 2 : CN= 74. 0]
06444>          [ Pervious       area: I Aper= 4. 67: SLPP= . 50: LGP=   40. : MNP=. 250: SCP=    .0]
06445>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 50: LGI = 316. : MNI =. 013: SCI =    .0]
06446>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06447>          [ SMN= 36. 67: SMXx=244. 49: SK= . 010]
06448> R0010: C00163- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06449>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D8          5. 27       . 781 No_date    28: 01    35. 83    . 554     . 000
06450>          [ XI M= . 55: TI MP= . 65]
06451>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= . 00]
06452>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06453>          [ Impervious     area: I Aimp=  . 79: SLPI = . 75: LGI = 187. : MNI =. 013: SCI =    .0]
06454>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06455> R0010: C00164- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06456>      CONTI NUOUS NASHYD       1. 0 01: S- 1- A          75. 88      1. 915 No_date    28: 36    26. 85    . 415     . 000
06457>          [ CN= 77. 0: N= 3. 00: Tp=    . 62]
06458>          [ IaREC= 4. 00: SMN= 31. 15: SMXx=207. 66: SK= . 010]
06459>          [ Inter Event Time=   12. 00]
06460> R0010: C00165- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06461>      CONTI NUOUS NASHYD       1. 0 01: W_CLAR_UND       35. 65       . 596 No_date    29: 11    26. 85    . 415     . 000
06462>          [ CN= 77. 0: N= 3. 00: Tp=  1. 10]
06463>          [ IaREC= 4. 00: SMN= 31. 15: SMXx=207. 66: SK= . 010]
06464>          [ Inter Event Time=   12. 00]
06465> R0010: C00166- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06466>      ADD HYD                  1. 0 02: N_FO          53577. 82     85. 561 No_date    34: 07    22. 63    n/ a      . 000
06467>                           +      1. 0 02: 520- out        335. 49      5. 922 No_date    29: 29    44. 05    n/ a      . 000
06468>                           +      1. 0 02: MS_P10           73. 29      1. 136 No_date    29: 00    47. 94    n/ a      . 000
06469>                           +      1. 0 02: P10- OVF          . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06470>                           +      1. 0 02: W_CLAR_UND       35. 65       . 596 No_date    29: 11    26. 85    n/ a      . 000
06471>                           +      1. 0 02: S- 1- FO- F_D     14. 96      1. 881 No_date    28: 02    48. 24    n/ a      . 000
06472>                           +      1. 0 02: S- 1- D8          5. 27       . 781 No_date    28: 01    35. 83    n/ a      . 000
06473>                           +      1. 0 02: S- 1- A          75. 88      1. 915 No_date    28: 36    26. 85    n/ a      . 000
06474>                      SUM=       1. 0 01: SN_FO         54118. 36     89. 084 No_date    33: 33    22. 82    n/ a      . 000
06475> R0010: C00167- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06476>      SAVE HYD                 1. 0 01: SN_FO         54118. 36     89. 084 No_date    33: 33    22. 82    n/ a      . 000
06477>          fname : SN_FO. 0010
06478>          remark: Total Flows at Foster Drain
06479> # Hydrograph from Node Foster routed to Node at Cedarview Road
06480> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6016
06481> #
06482> R0010: C00168- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06483>      ROUTE CHANNEL    ->      1. 0 02: SN_FO         54118. 36     89. 084 No_date    33: 33    22. 82    n/ a      . 000
06484> *    [ RDT= 1. 00] out <-      1. 0 01: N_CE          54118. 36     88. 895 No_date    33: 34    22. 82    n/ a      . 000
06485>          [ L/ S/ n=   159. /  . 082/ . 035]
06486>          [ Vmax=  1. 328: Dmax= 3. 414]
06487> #*************************************************************************
06488> #     Catchment S- 1
06489> #     - To Jock River (north and south of Jock)
06490> #     - Primarily agricultural fields; portion of sand quarry
06491> #*************************************************************************
06492> R0010: C00169- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06493>      CONTI NUOUS NASHYD       1. 0 01: S- 1- B           55. 36      1. 740 No_date    28: 24    26. 85    . 415     . 000
06494>          [ CN= 77. 0: N= 3. 00: Tp=    . 45]
06495>          [ IaREC= 4. 00: SMN= 31. 15: SMXx=207. 66: SK= . 010]
06496>          [ Inter Event Time=   12. 00]
06497> #   -  JFSA 2021- 02- 24 change the name from S- 1- BCDC to S- 1- A and S- 1- B. Change their TP values based on the new areas
06498> #   -  JFSA 2021- 02- 24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore.  "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
06499> #   -  JFSA 2021- 01- 19,  after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymore
06500> R0010: C00170- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06501>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D1          21. 67      2. 814 No_date    28: 02    48. 63    . 752     . 000
06502>          [ XI M= . 65: TI MP= . 65]
06503>          [ LOSS= 2 : CN= 75. 0]
06504>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06505>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 75: LGI = 380. : MNI =. 013: SCI =    .0]
06506>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06507>          [ SMN= 33. 81: SMXx=225. 43: SK= . 010]
06508> R0010: C00171- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06509>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D4          3. 28       . 489 No_date    28: 00    48. 63    . 752     . 000
06510>          [ XI M= . 65: TI MP= . 65]
06511>          [ LOSS= 2 : CN= 75. 0]
06512>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06513>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 75: LGI = 148. : MNI =. 013: SCI =    .0]
06514>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06515>          [ SMN= 33. 81: SMXx=225. 43: SK= . 010]
06516> R0010: C00172- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06517>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D5          12. 84      1. 749 No_date    28: 01    48. 63    . 752     . 000
06518>          [ XI M= . 65: TI MP= . 65]
06519>          [ LOSS= 2 : CN= 74. 0]
06520>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06521>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 75: LGI = 293. : MNI =. 013: SCI =    .0]
06522>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06523>          [ SMN= 33. 81: SMXx=225. 43: SK= . 010]
06524> R0010: C00173- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06525>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D6          1. 75       . 269 No_date    28: 00    48. 63    . 752     . 000
06526>          [ XI M= . 65: TI MP= . 65]
06527>          [ LOSS= 2 : CN= 75. 0]
06528>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06529>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 75: LGI = 108. : MNI =. 013: SCI =    .0]
06530>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06531>          [ SMN= 33. 81: SMXx=225. 43: SK= . 010]
06532> R0010: C00174- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06533>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D7          2. 03       . 311 No_date    28: 00    48. 63    . 752     . 000
06534>          [ XI M= . 65: TI MP= . 65]
06535>          [ LOSS= 2 : CN= 75. 0]
06536>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06537>          [ Impervious     area: I Aimp= 1. 57: SLPI = . 75: LGI = 116. : MNI =. 013: SCI =    .0]
06538>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06539>          [ SMN= 33. 81: SMXx=225. 43: SK= . 010]
06540> #     Catchment W_CLAR
06541> #     - To West Clarke Drain (south of the Jock)
06542> #     - Subdivision with 43% imp. as per Barrhaven South MSS
06543> #     - 2020- 11- 30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)- 11
06544> #     - 2020- 11- 30 split CLARKE Drainage Area to MVOR and ALL
06545> #*************************************************************************
06546> R0010: C00175- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06547>      CONTI NUOUS STANDHYD     1. 0 01: W_CLAR_MI         1. 77       . 229 No_date    28: 00    43. 97    . 680     . 000
06548>          [ XI M= . 45: TI MP= . 59]
06549>          [ LOSS= 2 : CN= 77. 0]
06550>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06551>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  109. : MNI =. 013: SCI =    .0]
06552>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06553>          [ SMN= 31. 15: SMXx=207. 66: SK= . 010]
06554> #  5- Year + 12% Capture
06555> R0010: C00176- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06556>      ROUTE RESERVOI R ->      1. 0 02: W_CLAR_MI         1. 77       . 229 No_date    28: 00    43. 97    n/ a      . 000
06557>                           out <=      1. 0 02: W_CLAR_Mi n      1. 77       . 213 No_date    27: 58    43. 97    n/ a      . 000
06558>                      overflow <=      1. 0 03: W_CLAR_MI         . 00       . 013 No_date    28: 00    43. 97    n/ a      . 000
06559>      [ MxSt ol ked=. 8179E- 04   m3,  Tot Ovf Vol =. 1952E- 03   m3,  N- Ov f =      1,  Tot Dur Ov f =     0. hrs]
06560> R0010: C00177- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06561>      CONTI NUOUS STANDHYD     1. 0 01: W_CLAR_ALL      119. 40     12. 497 No_date    28: 05    47. 94    . 741     . 000
06562>          [ XI M= . 60: TI MP= . 65]
06563>          [ LOSS= 2 : CN= 77. 0]
06564>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
06565>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  892. : MNI =. 013: SCI =    .0]
06566>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06567>          [ SMN= 31. 15: SMXx=207. 66: SK= . 010]
06568> R0010: C00178- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06569>      ADD HYD                  1. 0 02: W_CLAR_ALL      119. 40     12. 497 No_date    28: 05    47. 94    n/ a      . 000
06570>                           +      1. 0 02: W_CLAR_MI         1. 77       . 013 No_date    28: 00    43. 97    n/ a      . 000
06571>                      SUM=       1. 0 01: W_CLAR          119. 40     12. 497 No_date    28: 05    47. 94    n/ a      . 000
06572> R0010: C00179- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06573>      SAVE HYD                 1. 0 01: W_CLAR          119. 40     12. 497 No_date    28: 05    47. 94    n/ a      . 000
06574>          fname : W_CLAR. 0010
06575>          remark: Total Flows to West Clarke
06576> #*************************************************************************
06577> #     West Clarke Pond 2
06578> #     - Rating curve obtained from Barrhaven South MSS modeling
06579> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
06580> #*************************************************************************
06581> R0010: C00180- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06582>      ROUTE RESERVOI R ->      1. 0 02: W_CLAR          119. 40     12. 497 No_date    28: 05    47. 94    n/ a      . 000
06583>                           out <=      1. 0 01: MS_P2           119. 40      3. 959 No_date    28: 33    47. 94    n/ a      . 000
06584>                      overflow <=      1. 0 02: P2- OVF           . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06585>      [ MxSt ol ked=. 2802E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
06586> #*************************************************************************
06587> R0010: C00181- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06588>      ADD HYD                  1. 0 02: N_CE          54118. 36     88. 895 No_date    33: 34    22. 82    n/ a      . 000
06589>                           +      1. 0 02: S- 1- DI          3. 28       . 489 No_date    28: 00    48. 63    n/ a      . 000
06590>                           +      1. 0 02: S- 1- D5          12. 84      1. 749 No_date    28: 01    48. 63    n/ a      . 000
06591>                           +      1. 0 02: MS_P2           119. 40      3. 959 No_date    28: 33    47. 94    n/ a      . 000
06592>                           +      1. 0 02: P2- OVF           . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06593>                      SUM=       1. 0 01: SN_CE         54253. 88     89. 720 No_date    33: 34    22. 88    n/ a      . 000
06594> R0010: C00182- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06595>      SAVE HYD                 1. 0 01: SN_CE         54253. 88     89. 720 No_date    33: 34    22. 88    n/ a      . 000
06596>          fname : SN_CE. 0010
06597>          remark: Total Flows before Station 5737 on Jock River
06598> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5737
06599> # 2021- 02- 25 add stasion 5737 before station 5002. Section 5737 was extracted from the HEC- RAS model T:\ PROJ\ 1474- 16\ Des
06600> # JFSA 2021- 03- 02  change the slope to 0. 0175% instead of 0. 02593 to stabilize the model
06601> R0010: C00183- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06602>      ROUTE CHANNEL    ->      1. 0 01: SN_CE         54253. 88     89. 720 No_date    33: 34    22. 88    n/ a      . 000
06603> *    [ RDT= 1. 00] out <-      1. 0 01: 5737          54253. 88     85. 186 No_date    36: 20    22. 88    n/ a      . 000
06604>          [ L/ S/ n=   270. /  . 018/ . 035]
06605>          [ Vmax=   . 729: Dmax= 4. 467]
06606> R0010: C00184- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06607>      ADD HYD                  1. 0 02: 5737          54253. 88     85. 186 No_date    36: 20    22. 88    n/ a      . 000
06608>                           +      1. 0 02: S- 1- DI          3. 28       . 489 No_date    28: 00    48. 63    n/ a      . 000
06609>                           +      1. 0 02: S- 1- D6          1. 75       . 269 No_date    28: 00    48. 63    n/ a      . 000
06610>                           +      1. 0 02: S- 1- D7          2. 03       . 311 No_date    28: 00    48. 63    n/ a      . 000
06611>                      SUM=       1. 0 01: 5002          54279. 34     85. 238 No_date    36: 19    22. 89    n/ a      . 000
06612> R0010: C00185- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06613>      SAVE HYD                 1. 0 01: 5002          54279. 34     85. 238 No_date    36: 19    22. 89    n/ a      . 000
06614>          fname : 5002. 0010
06615>          remark: Total Flows before Station 5002 on Jock River
06616> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
06617> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5002
06618> # JFSA 2021- 02- 19 Change the slope from 0. 01 % ( as per Barrhaven Report 2007) to 0. 0255 % so the model will be more stable
06619> # JFSA 2021- 02- 19 Change to one CHANNEL with length 275 m each instead of one with 825 m length so the model wi
06620> # JFSA 2021- 02- 26 change the length of 5002 roun channel from 825 m to 736 m. That is because of adding station 5737 be
06621> R0010: C00186- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06622>      ROUTE CHANNEL    ->      1. 0 02: 5002          54279. 34     85. 238 No_date    36: 19    22. 89    n/ a      . 000
06623> *    [ RDT= 1. 00] out <-      1. 0 01: N_WCa         54279. 34     85. 270 No_date    35: 56    22. 89    n/ a      . 000
06624>          [ L/ S/ n=   245. /  . 095/ . 035]
06625>          [ Vmax=  1. 131: Dmax=  . 520]
06626> R0010: C00187- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06627>      ROUTE CHANNEL    ->      1. 0 02: N_WCa         54279. 34     85. 270 No_date    35: 56    22. 89    n/ a      . 000
06628> *    [ RDT= 1. 00] out <-      1. 0 01: N_WCb         54279. 34     85. 708 No_date    35: 56    22. 89    n/ a      . 000
06629>          [ L/ S/ n=   245. /  . 095/ . 035]
06630>          [ Vmax=  1. 132: Dmax=  . 521]
06631> R0010: C00188- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06632>      ROUTE CHANNEL    ->      1. 0 02: N_WCb         54279. 34     85. 708 No_date    35: 56    22. 89    n/ a      . 000
06633> *    [ RDT= 1. 00] out <-      1. 0 01: N_WC          54279. 34     85. 675 No_date    35: 56    22. 89    n/ a      . 000
06634>          [ L/ S/ n=   245. /  . 095/ . 035]
06635>          [ Vmax=  1. 133: Dmax=  2. 526]
06636> #*************************************************************************
06637> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
06638> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
06639> #
06640> R0010: C00189- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06641>      ROUTE CHANNEL    ->      1. 0 02: N_WC          54279. 34     85. 675 No_date    35: 56    22. 89    n/ a      . 000
06642> *    [ RDT= 1. 00] out <-      1. 0 01: N_KB          54279. 34     85. 488 No_date    35: 57    22. 89    n/ a      . 000
06643>          [ L/ S/ n=  1020. /  . 050/ . 035]
06644>          [ Vmax=  1. 004: Dmax=  3. 137]
06645> #*************************************************************************
06646> #     Catchment KEN_BU
06647> #     - To Kennedy- Burnett SWM Facility
06648> #     - Outlets to Fraser- Clarke drain (north of the Jock)
06649> #     - Medium density residential subdivision
06650> #*************************************************************************
06651> #*************************************************************************
06652> #     Existing Kennedy- Burnett SWM Facility
06653> #     - Rating curve obtained from URTKHP
06654> #     - Tributary Drainage Area to Pond = 160 ha
06655> #*************************************************************************
06656> R0010: C00190- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06657>      CONTI NUOUS STANDHYD     1. 0 01: KB- 01A          40. 82      3. 338 No_date    28: 12    24. 14    . 373     . 000
06658>          [ XI M= . 10: TI MP= . 40]
06659>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= . 00]
06660>          [ Pervious       area: I Aper= 4. 67: SLPP= . 50: LGP=   40. : MNP=. 250: SCP=    .0]
06661>          [ Impervious     area: I Aimp=  . 79: SLPI = . 50: LGI =  522. : MNI =. 013: SCI =    .0]
06662>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06663> R0010: C00191- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06664>      COMPUTE DUALHYD          1. 0 01: KB- 01A           40. 82      3. 338 No_date    28: 12    24. 14    n/ a      . 000
06665>          Major System     /       1. 0 02: KB- 01A- MI       . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06666>          Minor System     \       1. 0 03: KB- 01A- MN      40. 82      3. 338 No_date    28: 12    24. 14    n/ a      . 000
06667>          [ MjSy St o=. 0000E+00,  Tot Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
06668> R0010: C00192- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06669>      ADD HYD                  1. 0 02: KB- 01A- MI       . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06670>                           +      1. 0 02: KB- 01A- MN      40. 82      3. 338 No_date    28: 12    24. 14    n/ a      . 000
06671>                      SUM=       1. 0 01: KB- 01A- S       40. 82      3. 338 No_date    28: 12    24. 14    n/ a      . 000
06672> R0010: C00193- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06673>      CONTI NUOUS STANDHYD     1. 0 01: KB- 01B          31. 10      2. 335 No_date    28: 08    26. 73    . 413     . 000
06674>          [ XI M= . 19: TI MP= . 38]
06675>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= . 00]
06676>          [ Pervious       area: I Aper= 4. 67: SLPP= . 42: LGP=   40. : MNP=. 250: SCP=    .0]
06677>          [ Impervious     area: I Aimp=  . 79: SLPI = . 42: LGI =  455. : MNI =. 013: SCI =    .0]
06678>          [ IaREC i mp=    4. 00: I aREC per=    4. 00]
06679> R0010: C00194- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06680>      COMPUTE DUALHYD          1. 0 01: KB- 01B           31. 10      2. 335 No_date    28: 08    26. 73    n/ a      . 000
06681>          Major System     /       1. 0 02: KB- 01B- MI       . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06682>          Minor System     \       1. 0 03: KB- 01B- MN      31. 10      1. 585 No_date    27: 59    26. 78    n/ a      . 000
06683>          [ MjSy St o=. 8272E+03,  Tot Ovf Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
06684> R0010: C00195- ------------ DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
06685>      ADD HYD                  1. 0 02: KB- 01B- MI       . 00       . 000 No_date    0: 00      . 00    n/ a      . 000
06686>                           +      1. 0 02: KB- 01B- MN      31. 10      1. 585 No_date    27: 59    26. 78    n/ a      . 000
06687>                      SUM=       1. 0 01: KB- 01B- S       31. 10      1. 585 No_date    27: 59    26. 78    n/ a      . 000
06688> R0010: C00196- ------------ DTmi n- I D: NHYD- ---------- AREAha- QP
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06733>          ADD HYD                    1.0 02: KB-04-MI          .00       .000 No_date    0:00       .00  n/a      .000
06734>                               +     1.0 02: KB-04-MN         6.95       .503 No_date   27:46     56.53  n/a      .000
06735>                               SUM=  1.0 01: KB-04-S          6.95       .503 No_date   27:46     56.53  n/a      .000
06736> R0010: CO0205-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06737>          CONTINUOUS STANDHYD        1.0 01: KB-05             5.19       .983 No_date   28:00     59.76 .924      .000
06738>            [ XI M=. 93: TI M=. 93]
06739>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06740>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06741>            [ Impervious    area: I Aimp= 1. 57: SLPI=. 50: LGI= 186. : MNI=. 013: SCI=   .0]
06742>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06743> R0010: CO0206-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06744>          CONTINUOUS STANDHYD        1.0 01: KB-06            12.93      2.536 No_date   28:00     57.57 .890      .000
06745>            [ XI M=. 87: TI M=. 87]
06746>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06747>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06748>            [ Impervious    area: I Aimp=  . 94: SLPI=4. 75: LGI= 294. : MNI=. 013: SCI=   .0]
06749>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06750> R0010: CO0207-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06751>          COMPUTE DUALHYD            1.0 01: KB-06            12.93      2.536 No_date   28:00     57.57  n/a      .000
06752>            Major System    /        1.0 02: KB-06-MI          .00       .000 No_date    0:00       .00  n/a      .000
06753>            Minor System    \        1.0 03: KB-06-MN         12.93      2.262 No_date   27:56     57.80  n/a      .000
06754>            [ M SysSto=. 6369E+02,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06755> R0010: CO0208-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06756>          ADD HYD                    1.0 02: KB-06-MI          .00       .000 No_date    0:00       .00  n/a      .000
06757>                               +     1.0 02: KB-06-MN         12.93      2.262 No_date   27:56     57.80  n/a      .000
06758>                               SUM=  1.0 01: KB-06-S          12.93      2.262 No_date   27:56     57.80  n/a      .000
06759> R0010: CO0209-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06760>          CONTINUOUS STANDHYD        1.0 01: KB-11             4.03       .686 No_date   28:00     48.04 .743      .000
06761>            [ XI M=. 68: TI M=. 68]
06762>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06763>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06764>            [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 164. : MNI=. 013: SCI=   .0]
06765>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06766> R0010: CO0210-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06767>          COMPUTE DUALHYD            1.0 01: KB-11             4.03       .686 No_date   28:00     48.04  n/a      .000
06768>            Major System    /        1.0 02: KB-11-MI          .00       .000 No_date    0:00       .00  n/a      .000
06769>            Minor System    \        1.0 03: KB-11-MN         4.03       .577 No_date   27:55     48.44  n/a      .000
06770>            [ M SysSto=. 2954E+02,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06771> R0010: CO0211-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06772>          ADD HYD                    1.0 02: KB-11-MI          .00       .000 No_date    0:00       .00  n/a      .000
06773>                               +     1.0 02: KB-11-MN         4.03       .577 No_date   27:55     48.44  n/a      .000
06774>                               SUM=  1.0 01: KB-11-S          4.03       .577 No_date   27:55     48.44  n/a      .000
06775> R0010: CO0212-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06776>          CONTINUOUS STANDHYD        1.0 01: SI                4.99      1.020 No_date   28:00     59.76 .924      .000
06777>            [ XI M=. 93: TI M=. 93]
06778>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06779>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06780>            [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI= 182. : MNI=. 013: SCI=   .0]
06781>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06782> R0010: CO0213-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06783>          CONTINUOUS STANDHYD        1.0 01: KB-15             2.15       .377 No_date   28:00     54.15 .837      .000
06784>            [ XI M=. 79: TI M=. 79]
06785>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06786>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06787>            [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 120. : MNI=. 013: SCI=   .0]
06788>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06789> R0010: CO0214-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06790>          ADD HYD                    1.0 02: KB-01A-S         40.82      3.338 No_date   28:12     24.14  n/a      .000
06791>                               +     1.0 02: KB-01B-S         31.10      1.585 No_date   27:59     26.78  n/a      .000
06792>                               +     1.0 02: KB-01C-S         13.78      1.350 No_date   28:00     27.93  n/a      .000
06793>                               +     1.0 02: KB-03-S          84.78      5.270 No_date   27:59     27.40  n/a      .000
06794>                               +     1.0 02: KB-04-S           6.95       .503 No_date   27:46     56.53  n/a      .000
06795>                               +     1.0 02: KB-05             5.19       .983 No_date   28:00     59.76  n/a      .000
06796>                               +     1.0 02: KB-06-S          12.93      2.262 No_date   27:56     57.80  n/a      .000
06797>                               +     1.0 02: KB-11-S           4.03       .577 No_date   27:55     48.44  n/a      .000
06798>                               +     1.0 02: KB-15             2.15       .377 No_date   28:00     54.15  n/a      .000
06799>                               +     1.0 02: SI                4.99      1.020 No_date   28:00     59.76  n/a      .000
06800>                               SUM=  1.0 01: KB-P1           206.72     16.418 No_date   28:01     31.86  n/a      .000
06801> R0010: CO0215-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06802>          ROUTE RESERVOIR -->        1.0 02: KB-P1            206.72     16.418 No_date   28:01     31.86  n/a      .000
06803>                               out <=  1.0 01: KB-P1R           206.72     12.427 No_date   28:17     31.86  n/a      .000
06804>                               overflow <=  1.0 03: KB-P1ovf      .00       .000 No_date    0:00       .00  n/a      .000
06805>          [ MxSto Used=. 7282E+00   m3,  Tot Or Vol =. 0000E+00   m3,  N-Or=    0,  Tot Dur Or=    0. hrs]
06806> R0010: CO0216-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06807>          ADD HYD                    1.0 02: KB-P1R           206.72     12.427 No_date   28:17     31.86  n/a      .000
06808>                               +     1.0 02: KB-P1ovf           .00       .000 No_date    0:00       .00  n/a      .000
06809>                               SUM=  1.0 01: KB-Pond1         206.72     12.427 No_date   28:17     31.86  n/a      .000
06810> R0010: CO0217-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06811>          SAVE HYD                   1.0 01: KB-Pond1         206.72     12.427 No_date   28:17     31.86  n/a      .000
06812>            fname : KB-Pond1. 0010
06813>            remark: Total Flows at KB first pond
06814> R0010: CO0218-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06815>          CONTINUOUS STANDHYD        1.0 01: KB-07             10.86      2.042 No_date   28:00     57.07 .882      .000
06816>            [ XI M=. 86: TI M=. 86]
06817>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06818>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06819>            [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 269. : MNI=. 013: SCI=   .0]
06820>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06821> R0010: CO0219-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06822>          COMPUTE DUALHYD            1.0 01: KB-07             10.86      2.042 No_date   28:00     57.07  n/a      .000
06823>            Major System    /        1.0 02: KB-07-MI          .00       .000 No_date    0:00       .00  n/a      .000
06824>            Minor System    \        1.0 03: KB-07-MN         10.86      2.042 No_date   28:00     57.07  n/a      .000
06825>            [ M SysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06826> R0010: CO0220-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06827>          ADD HYD                    1.0 02: KB-07-MI          .00       .000 No_date    0:00       .00  n/a      .000
06828>                               +     1.0 02: KB-07-MN         10.86      2.042 No_date   28:00     57.07  n/a      .000
06829>                               SUM=  1.0 01: KB-07-S          10.86      2.042 No_date   28:00     57.07  n/a      .000
06830> R0010: CO0221-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06831>          CONTINUOUS STANDHYD        1.0 01: KB-08             6.61      1.072 No_date   28:00     46.33 .716      .000
06832>            [ XI M=. 64: TI M=. 64]
06833>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06834>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06835>            [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=   .0]
06836>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06837> R0010: CO0222-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06838>          COMPUTE DUALHYD            1.0 01: KB-08             6.61      1.072 No_date   28:00     46.33  n/a      .000
06839>            Major System    /        1.0 02: KB-08-MI          .00       .000 No_date    0:00       .00  n/a      .000
06840>            Minor System    \        1.0 03: KB-08-MN         6.61      1.058 No_date   28:00     46.37  n/a      .000
06841>            [ M SysSto=. 9091E+00,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06842> R0010: CO0223-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06843>          ADD HYD                    1.0 02: KB-08-MI          .00       .000 No_date    0:00       .00  n/a      .000
06844>                               +     1.0 02: KB-08-MN         6.61      1.058 No_date   28:00     46.37  n/a      .000
06845>                               SUM=  1.0 01: KB-08-S          6.61      1.058 No_date   28:00     46.37  n/a      .000
06846> R0010: CO0224-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06847>          CONTINUOUS STANDHYD        1.0 01: KB-09             2.60       .515 No_date   28:00     56.40 .872      .000
06848>            [ XI M=. 86: TI M=. 86]
06849>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06850>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06851>            [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=   .0]
06852>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06853> R0010: CO0225-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06854>          CONTINUOUS STANDHYD        1.0 01: KB-10_1           2.37       .470 No_date   28:00     56.40 .872      .000
06855>            [ XI M=. 86: TI M=. 86]
06856>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06857>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06858>            [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=   .0]
06859>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06860> R0010: CO0226-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06861>          CONTINUOUS STANDHYD        1.0 01: KB-10_2           1.14       .229 No_date   28:00     56.40 .872      .000
06862>            [ XI M=. 86: TI M=. 86]
06863>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06864>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06865>            [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=   .0]
06866>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06867> R0010: CO0227-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06868>          CONTINUOUS STANDHYD        1.0 01: KB-12             4.86       .900 No_date   28:00     53.41 .826      .000
06869>            [ XI M=. 79: TI M=. 79]
06870>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06871>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06872>            [ Impervious    area: I Aimp= 1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=   .0]
06873>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06874> R0010: CO0228-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06875>          COMPUTE DUALHYD            1.0 01: KB-12             4.86       .900 No_date   28:00     53.41  n/a      .000
06876>            Major System    /        1.0 02: KB-12-MI          .00       .000 No_date    0:00       .00  n/a      .000
06877>            Minor System    \        1.0 03: KB-12-MN         4.86       .867 No_date   27:58     53.47  n/a      .000
06878>            [ M SysSto=. 3261E+01,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06879> R0010: CO0229-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06880>          ADD HYD                    1.0 02: KB-12-MI          .00       .000 No_date    0:00       .00  n/a      .000
06881>                               +     1.0 02: KB-12-MN         4.86       .867 No_date   27:58     53.47  n/a      .000
06882>                               SUM=  1.0 01: KB-12-S          4.86       .867 No_date   27:58     53.47  n/a      .000
06883> R0010: CO0230-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06884>          CONTINUOUS STANDHYD        1.0 01: KB-13            10.19      1.611 No_date   28:00     46.33 .716      .000
06885>            [ XI M=. 64: TI M=. 64]
06886>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06887>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06888>            [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=   .0]
06889>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06890> R0010: CO0231-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06891>          COMPUTE DUALHYD            1.0 01: KB-13            10.19      1.611 No_date   28:00     46.33  n/a      .000
06892>            Major System    /        1.0 02: KB-13-MI          .00       .000 No_date    0:00       .00  n/a      .000
06893>            Minor System    \        1.0 03: KB-13-MN         10.19      1.611 No_date   28:00     46.33  n/a      .000
06894>            [ M SysSto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06895> R0010: CO0232-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06896>          ADD HYD                    1.0 02: KB-13-MI          .00       .000 No_date    0:00       .00  n/a      .000
06897>                               +     1.0 02: KB-13-MN        10.19      1.611 No_date   28:00     46.33  n/a      .000
06898>                               SUM=  1.0 01: KB-13-S         10.19      1.611 No_date   28:00     46.33  n/a      .000
06899> R0010: CO0233-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06900>          CONTINUOUS STANDHYD        1.0 01: KB-14             5.47       .898 No_date   28:00     46.33 .716      .000
06901>            [ XI M=. 64: TI M=. 64]
06902>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06903>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06904>            [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=   .0]
06905>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06906> R0010: CO0234-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06907>          COMPUTE DUALHYD            1.0 01: KB-14             5.47       .898 No_date   28:00     46.33  n/a      .000
06908>            Major System    /        1.0 02: KB-14-MI          .00       .000 No_date    0:00       .00  n/a      .000
06909>            Minor System    \        1.0 03: KB-14-MN         5.47       .873 No_date   27:59     46.40  n/a      .000
06910>            [ M SysSto=. 1663E+01,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06911> R0010: CO0235-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06912>          ADD HYD                    1.0 02: KB-14-MI          .00       .000 No_date    0:00       .00  n/a      .000
06913>                               +     1.0 02: KB-14-MN         5.47       .873 No_date   27:59     46.40  n/a      .000
06914>                               SUM=  1.0 01: KB-14-S          5.47       .873 No_date   27:59     46.40  n/a      .000
06915> R0010: CO0236-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06916>          CONTINUOUS STANDHYD        1.0 01: KB-16_2           3.42       .545 No_date   28:01     50.20 .776      .000
06917>            [ XI M=. 71: TI M=. 71]
06918>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06919>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06920>            [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 151. : MNI=. 013: SCI=   .0]
06921>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06922> R0010: CO0237-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06923>          ADD HYD                    1.0 02: KB-Pond1         206.72     12.427 No_date   28:17     31.86  n/a      .000
06924>                               +     1.0 02: KB-07-S          10.86      2.042 No_date   28:00     57.07  n/a      .000
06925>                               +     1.0 02: KB-08-S           6.61      1.058 No_date   28:00     46.37  n/a      .000
06926>                               +     1.0 02: KB-09             2.60       .515 No_date   28:00     56.40  n/a      .000
06927>                               +     1.0 02: KB-10_1           2.37       .470 No_date   28:00     56.40  n/a      .000
06928>                               +     1.0 02: KB-10_2           1.14       .229 No_date   28:00     56.40  n/a      .000
06929>                               +     1.0 02: KB-12-S           4.86       .867 No_date   27:58     53.47  n/a      .000
06930>                               +     1.0 02: KB-13-S          10.19      1.611 No_date   28:00     46.33  n/a      .000
06931>                               +     1.0 02: KB-14-S           5.47       .873 No_date   27:59     46.40  n/a      .000
06932>                               +     1.0 02: KB-16_2           3.42       .545 No_date   28:01     50.20  n/a      .000
06933>                               SUM=  1.0 01: KB-P2           254.24     19.235 No_date   28:01     35.46  n/a      .000
06934> R0010: CO0238-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06935>          ROUTE RESERVOIR -->        1.0 02: KB-P2            254.24     19.235 No_date   28:01     35.46  n/a      .000
06936>                               out <=  1.0 01: KB-P2R           254.24     15.083 No_date   28:10     35.46  n/a      .000
06937>                               overflow <=  1.0 03: KB-P2ovf      .00       .000 No_date    0:00       .00  n/a      .000
06938>          [ MxSto Used=. 7575E+00   m3,  Tot Or Vol =. 0000E+00   m3,  N-Or=    0,  Tot Dur Or=    0. hrs]
06939> R0010: CO0239-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06940>          ADD HYD                    1.0 02: KB-P2R           254.24     15.083 No_date   28:10     35.46  n/a      .000
06941>                               +     1.0 02: KB-P2ovf           .00       .000 No_date    0:00       .00  n/a      .000
06942>                               SUM=  1.0 01: KB-Pond2         254.24     15.083 No_date   28:10     35.46  n/a      .000
06943> R0010: CO0240-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06944>          SAVE HYD                   1.0 01: KB-Pond2         254.24     15.083 No_date   28:10     35.46  n/a      .000
06945>            fname : KB-Pond2. 0010
06946>            remark: Total Flows at KB second pond
06947> R0010: CO0241-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06948>          CONTINUOUS STANDHYD        1.0 01: KB-16_1           2.80       .465 No_date   28:01     52.17 .806      .000
06949>            [ XI M=. 75: TI M=. 75]
06950>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06951>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06952>            [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 137. : MNI=. 013: SCI=   .0]
06953>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06954> R0010: CO0242-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06955>          ADD HYD                    1.0 02: KB-P2R           254.24     15.083 No_date   28:10     35.46  n/a      .000
06956>                               +     1.0 02: KB-16_1           2.80       .465 No_date   28:01     52.17  n/a      .000
06957>                               SUM=  1.0 01: KB-P3           257.04     15.295 No_date   28:08     35.64  n/a      .000
06958> R0010: CO0243-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06959>          ROUTE RESERVOIR -->        1.0 02: KB-P3            257.04     15.295 No_date   28:08     35.64  n/a      .000
06960>                               out <=  1.0 01: KB-P3R           12.26       .051 No_date   17:31     35.64  n/a      .000
06961>                               overflow <=  1.0 03: KB-P3ovf    244.78     15.243 No_date   28:09     35.64  n/a      .000
06962>          [ MxSto Used=. 1993E-02   m3,  Tot Or Vol =. 8724E+01   m3,  N-Or=    2,  Tot Dur Or=   23. hrs]
06963> R0010: CO0244-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06964>          ADD HYD                    1.0 02: KB-P3R           12.26       .051 No_date   17:31     35.64  n/a      .000
06965>                               +     1.0 02: KB-P3ovf         244.78     15.243 No_date   28:09     35.64  n/a      .000
06966>                               SUM=  1.0 01: KB-Pond3         257.04     15.294 No_date   28:09     35.64  n/a      .000
06967> R0010: CO0245-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06968>          SAVE HYD                   1.0 01: KB-Pond3         257.04     15.294 No_date   28:09     35.64  n/a      .000
06969>            fname : KB-Pond3. 0010
06970>            remark: Total Flows at KB third pond
06971> #*************************************************************************
06972> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
06973> #     - FRASER-CLARKE DRAIN
06974> #*************************************************************************
06975> R0010: CO0246-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06976>          CONTINUOUS STANDHYD        1.0 01: FC-01             8.03      1.049 No_date   28:01     37.67 .582      .000
06977>            [ XI M=. 47: TI M=. 47]
06978>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06979>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06980>            [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=   .0]
06981>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06982> R0010: CO0247-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06983>          COMPUTE DUALHYD            1.0 01: FC-01             8.03      1.049 No_date   28:01     37.67  n/a      .000
06984>            Major System    /        1.0 02: FC-01-MI          .00       .000 No_date    0:00       .00  n/a      .000
06985>            Minor System    \        1.0 03: FC-01-MN         8.03       .756 No_date   28:17     37.91  n/a      .000
06986>            [ M SysSto=. 1270E+03,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
06987> R0010: CO0248-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06988>          ADD HYD                    1.0 02: FC-01-MI          .00       .000 No_date    0:00       .00  n/a      .000
06989>                               +     1.0 02: FC-01-MN         8.03       .756 No_date   27:55     37.91  n/a      .000
06990>                               SUM=  1.0 01: FC-01-S          8.03       .756 No_date   27:55     37.91  n/a      .000
06991> R0010: CO0249-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06992>          CONTINUOUS STANDHYD        1.0 01: FC-02            16.05      2.930 No_date   28:01     59.76 .924      .000
06993>            [ XI M=. 93: TI M=. 93]
06994>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
06995>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
06996>            [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=   .0]
06997>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
06998> R0010: CO0250-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
06999>          COMPUTE DUALHYD            1.0 01: FC-02            16.05      2.930 No_date   28:01     59.76  n/a      .000
07000>            Major System    /        1.0 02: FC-02-MI          .00       .000 No_date    0:00       .00  n/a      .000
07001>            Minor System    \        1.0 03: FC-02-MN         16.05      1.159 No_date   27:46     59.94  n/a      .000
07002>            [ M SysSto=. 1407E+04,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
07003> R0010: CO0251-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07004>          ADD HYD                    1.0 02: FC-02-MI          .00       .000 No_date    0:00       .00  n/a      .000
07005>                               +     1.0 02: FC-02-MN        16.05      1.159 No_date   27:46     59.94  n/a      .000
07006>                               SUM=  1.0 01: FC-02-S         16.05      1.159 No_date   27:46     59.94  n/a      .000
07007> R0010: CO0252-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07008>          CONTINUOUS STANDHYD        1.0 01: FC-03             7.37      1.130 No_date   28:01     45.83 .708      .000
07009>            [ XI M=. 64: TI M=. 64]
07010>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
07011>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
07012>            [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=   .0]
07013>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
07014> R0010: CO0253-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07015>          COMPUTE DUALHYD            1.0 01: FC-03             7.37      1.130 No_date   28:01     45.83  n/a      .000
07016>            Major System    /        1.0 02: FC-03-MI          .00       .000 No_date    0:00       .00  n/a      .000
07017>            Minor System    \        1.0 03: FC-03-MN         7.37       .358 No_date   27:45     45.93  n/a      .000
07018>            [ M SysSto=. 6763E+03,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
07019> R0010: CO0254-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07020>          ADD HYD                    1.0 02: FC-03-MI          .00       .000 No_date    0:00       .00  n/a      .000
07021>                               +     1.0 02: FC-03-MN         7.37       .358 No_date   27:45     45.93  n/a      .000
07022>                               SUM=  1.0 01: FC-03-S          7.37       .358 No_date   27:45     45.93  n/a      .000
07023> R0010: CO0255-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07024>          CONTINUOUS STANDHYD        1.0 01: FC-04            12.87      1.906 No_date   28:01     45.83 .708      .000
07025>            [ XI M=. 64: TI M=. 64]
07026>            [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
07027>            [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
07028>            [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 293. : MNI=. 013: SCI=   .0]
07029>            [ I aREC i mp=  4. 00: I aREC per=  4. 00]
07030> R0010: CO0256-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07031>          COMPUTE DUALHYD            1.0 01: FC-04            12.87      1.906 No_date   28:01     45.83  n/a      .000
07032>            Major System    /        1.0 02: FC-04-MI          .00       .000 No_date    0:00       .00  n/a      .000
07033>            Minor System    \        1.0 03: FC-04-MN         12.87       .741 No_date   27:46     45.93  n/a      .000
07034>            [ M SysSto=. 9380E+03,  Tot Or Vol =. 0000E+00,  N-Or=    0,  Tot Dur Or=    0. hrs]
07035> R0010: CO0257-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07036>          ADD HYD                    1.0 02: FC-04-MI          .00       .000 No_date    0:00       .00  n/a      .000
07037>                               +     1.0 02: FC-04-MN        12.87       .741 No_date   27:46     45.93  n/a      .000
07038>                               SUM=  1.0 01: FC-04-S         12.87       .741 No_date   27:46     45.93  n/a      .000
07039> #*************************************************************************
07040> #     PROPO
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07107>                  +     1. 0 02: FRASER- DRN      13. 65       . 447 No_date   28: 22   26. 85   n/ a      . 000
07108>                  +     1. 0 02: FRASER- S        21. 61     2. 281 No_date   27: 57   47. 46   n/ a      . 000
07109>                  +     1. 0 02: N_KB             54279. 34  85. 488 No_date   27: 55   22. 89   n/ a      . 000
07110>                  +     1. 0 02: FC- 01- S         8. 03      . 756 No_date   27: 55   37. 91   n/ a      . 000
07111>                  +     1. 0 02: FC- 02- S        16. 05     1. 159 No_date   27: 46   59. 94   n/ a      . 000
07112>                  +     1. 0 02: FC- 03- S         7. 37      . 358 No_date   27: 45   45. 93   n/ a      . 000
07113>              SUM=      1. 0 01: 4241             54658. 45  86. 106 No_date   35: 57   22. 98   n/ a      . 000
07114> R0010: CO0269- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07115>      SAVE HYD              1. 0 01: 4241             54658. 45  86. 106 No_date   35: 57   22. 98   n/ a      . 000
07116>        fname : 4241. 0010
07117>        remark: Total Flows at Ken- Burnett Outlet
07118> # Hydrograph from Node Ken- Burnett to station 3633
07119> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4241
07120> #
07121> R0010: CO0270- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07122>      ROUTE CHANNEL     - >     1. 0 02: 4241             54658. 45  86. 106 No_date   35: 57   22. 98   n/ a      . 000
07123>        [ RDT= 1. 00]  out <-     1. 0 01: 4241- out     54658. 45  86. 076 No_date   35: 57   22. 98   n/ a      . 000
07124>        [ L/ S/ n=  294. /  . 109/ . 035]
07125>        [ Vmx= 1. 173: Dmx= . 2. 018]
07126> R0010: CO0271- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07127>      ADD HYD               1. 0 02: 4241- out        54658. 45  86. 076 No_date   35: 57   22. 89   n/ a      . 000
07128>                  +     1. 0 02: FC- 04- S        12. 87      . 741 No_date   27: 46   45. 93   n/ a      . 000
07129>                  +     1. 0 02: JR- 01- S         8. 24      . 563 No_date   27: 47   46. 14   n/ a      . 000
07130>                  +     1. 0 02: JR- 02- S         1. 59      . 153 No_date   27: 51   46. 12   n/ a      . 000
07131>              SUM=      1. 0 01: SN_KB            54681. 14  86. 123 No_date   35: 57   22. 99   n/ a      . 000
07132> R0010: CO0272- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07133>      SAVE HYD              1. 0 01: SN_KB            54681. 14  86. 123 No_date   35: 57   22. 99   n/ a      . 000
07134>        fname : SN_KB. 0010
07135>        remark: HYD_COMMENT=[ "Total Flows before Station 3633]
07136> # Hydrograph from Station 3633 to Node Todd
07137> # Channel X- Section obtained from RVCA Hydraulic Model - Station 3633
07138> # JFSA 2021- 02- 26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0. 0498% to 0. 2
07139> #
07140> R0010: CO0273- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07141>      ROUTE CHANNEL     - >     1. 0 02: SN_KB            54681. 14  86. 123 No_date   35: 57   22. 99   n/ a      . 000
07142>        [ RDT= 1. 00]  out <-     1. 0 01: N_TO             54681. 14  85. 255 No_date   37: 08   22. 99   n/ a      . 000
07143>        [ L/ S/ n=  608. /  . 247/ . 035]
07144>        [ Vmx= 1. 555: Dmx= 1. 520]
07145> #*************************************************************************
07146> #     Catchment Greenbank
07147> #     - To Greenbank Drain (south of the Jock)
07148> #     - JFSA 2021- 01- 19 add Greenbank pond as per JFSA_ P598( 06)- 15, June 2016
07149> #     - JFSA 2021- 01- 19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
07150> #*************************************************************************
07151> R0010: CO0274- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07152>      CONTINUOUS STANDHYD   1. 0 01: Greenbank        36. 60     4. 662 No_date   28: 02   49. 38   . 763     . 000
07153>        [ XI M= . 64: TI M= . 68]
07154>        [ LOSS= 2 : CN= 77. 0]
07155>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07156>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=    . 0]
07157>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07158>        [ SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07159> R0010: CO0275- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07160>      ROUTE RESERVOIR - >     1. 0 02: Greenbank        36. 60     4. 662 No_date   28: 02   49. 38   n/ a      . 000
07161>                  out <=    1. 0 01: GreenB_MN        36. 60     1. 697 No_date   28: 18   49. 38   n/ a      . 000
07162>              overflow <=   1. 0 03: GreenB_MI          . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07163>        [ MkSt olked= . 8299E+ 00  m3,  Tot Orf Vol= . 0000E+ 00  m3,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
07164> R0010: CO0276- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07165>      ADD HYD               1. 0 02: N_TO             54681. 14  85. 255 No_date   37: 08   22. 99   n/ a      . 000
07166>                  +     1. 0 02: GreenB_MI          . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07167>                  +     1. 0 02: GreenB_MN        36. 60     1. 697 No_date   28: 18   49. 38   n/ a      . 000
07168>              SUM=      1. 0 01: GreenB           54717. 74  85. 389 No_date   35: 58   23. 01   n/ a      . 000
07169> R0010: CO0277- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07170>      SAVE HYD              1. 0 01: GreenB           54717. 74  85. 389 No_date   35: 58   23. 01   n/ a      . 000
07171>        fname : GreenB. 0010
07172>        remark: Total Flows at Greenbank Drain
07173> #*************************************************************************
07174> #     Catchment TODD
07175> #     - To Todd Drain (south of the Jock)
07176> #     - Subdivision with 43% imp. as per Barrhaven South MSS
07177> #     - 2020- 11- 30 increase imp. based on P598( 04)- 11
07178> #     - 2020- 11- 30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598( 04)- 11
07179> #     - 2020- 11- 30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
07180> #*************************************************************************
07181> #     - JFSA 2021- 01- 19 add "TODD_MN" as part of Clarke("W CLAR_M ") and remove it from Todd
07182> R0010: CO0278- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07183>      CONTINUOUS STANDHYD   1. 0 01: TODD_MN2          2. 10       . 282 No_date   28: 00   44. 92   . 694     . 000
07184>        [ XI M= . 53: TI M= . 57]
07185>        [ LOSS= 2 : CN= 77. 0]
07186>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07187>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=    . 0]
07188>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07189>        [ SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07190> R0010: CO0279- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07191>      CONTINUOUS STANDHYD   1. 0 01: TODD_MN3           . 12       . 016 No_date   28: 00   44. 90   . 694     . 000
07192>        [ XI M= . 53: TI M= . 57]
07193>        [ LOSS= 2 : CN= 77. 0]
07194>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07195>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=    . 0]
07196>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07197>        [ SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07198> R0010: CO0280- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07199>      CONTINUOUS STANDHYD   1. 0 01: TODD_MI           30. 23     3. 512 No_date   28: 02   46. 20   . 714     . 000
07200>        [ XI M= . 52: TI M= . 64]
07201>        [ LOSS= 2 : CN= 77. 0]
07202>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07203>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=    . 0]
07204>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07205>        [ SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07206> R0010: CO0281- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07207>      CONTINUOUS STANDHYD   1. 0 01: TODD_ALL         112. 91    10. 943 No_date   28: 05   44. 71   . 691     . 000
07208>        [ XI M= . 52: TI M= . 57]
07209>        [ LOSS= 2 : CN= 77. 0]
07210>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07211>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=    . 0]
07212>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07213>        [ SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07214> R0010: CO0282- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07215>      CONTINUOUS STANDHYD   1. 0 01: TODD_P             3. 06       . 451 No_date   28: 00   48. 23   . 745     . 000
07216>        [ XI M= . 63: TI M= . 63]
07217>        [ LOSS= 2 : CN= 77. 0]
07218>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07219>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 143. : MNI=. 013: SCI=    . 0]
07220>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07221>        [ SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07222> # 5- Year + 12% Capture
07223> R0010: CO0283- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07224>      ROUTE RESERVOIR - >     1. 0 02: TODD_MI          30. 23     3. 512 No_date   28: 02   46. 20   n/ a      . 000
07225>                  out <=    1. 0 01: TODD_Min         30. 14     3. 314 No_date   28: 00   46. 20   n/ a      . 000
07226>              overflow <=   1. 0 03: TODD_Mj            . 09       . 190 No_date   28: 03   46. 20   n/ a      . 000
07227>        [ MkSt olked= . 4110E- 03  m3,  Tot Orf Vol= . 4062E- 02  m3,  N- Orf=     1,  Tot Dur Orf=     0. hrs]
07228> # 5- Year + 12% Capture
07229> R0010: CO0284- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07230>      ROUTE RESERVOIR - >     1. 0 02: TODD_MN2          2. 10       . 282 No_date   28: 00   44. 92   n/ a      . 000
07231>                  out <=    1. 0 01: TODD_MN2n         2. 10       . 268 No_date   27: 58   44. 92   n/ a      . 000
07232>              overflow <=   1. 0 03: TODD_MN2j          . 00       . 011 No_date   28: 00   44. 92   n/ a      . 000
07233>        [ MkSt olked= . 1267E- 03  m3,  Tot Orf Vol= . 1440E- 03  m3,  N- Orf=     1,  Tot Dur Orf=     0. hrs]
07234> R0010: CO0285- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07235>      ROUTE RESERVOIR - >     1. 0 02: TODD_MN3           . 12       . 016 No_date   28: 00   44. 90   n/ a      . 000
07236>                  out <=    1. 0 01: TODD_MN3n          . 12       . 016 No_date   28: 00   44. 90   n/ a      . 000
07237>              overflow <=   1. 0 03: TODD_MN3j          . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07238>        [ MkSt olked= . 1007E- 03  m3,  Tot Orf Vol= . 1379E- 05  m3,  N- Orf=     1,  Tot Dur Orf=     0. hrs]
07239> R0010: CO0286- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07240>      CONTINUOUS STANDHYD   1. 0 01: A2               25. 50     2. 388 No_date   28: 03   40. 97   . 633     . 000
07241>        [ XI M= . 42: TI M= . 52]
07242>        [ LOSS= 2 : CN= 75. 0]
07243>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07244>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 566. : MNI=. 013: SCI=    . 0]
07245>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07246>        [ SMN= 33. 81: SMX= 225. 43: SK=  . 010]
07247> R0010: CO0287- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07248>      COMPUTE DUALHYD       1. 0 01: A2               25. 50     2. 388 No_date   28: 03   40. 97   n/ a      . 000
07249>        Major System    /     1. 0 02: A2- MI           . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07250>        Minor System    \     1. 0 03: A2- MN           25. 50     1. 818 No_date   27: 57   40. 97   n/ a      . 000
07251>        [ MjSys St o= . 2896E+ 03,  Tot Orf Vol= . 0000E+ 00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
07252> R0010: CO0288- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07253>      ADD HYD               1. 0 02: TODD_MN2n         2. 10       . 268 No_date   27: 58   44. 92   n/ a      . 000
07254>                  +     1. 0 02: TODD_MN3n          . 12       . 016 No_date   28: 00   44. 90   n/ a      . 000
07255>                  +     1. 0 02: TODD_Mj            . 09       . 190 No_date   28: 03   46. 20   n/ a      . 000
07256>                  +     1. 0 02: TODD_P            3. 06       . 451 No_date   28: 00   48. 23   n/ a      . 000
07257>                  +     1. 0 02: TODD_ALL         112. 91    10. 943 No_date   28: 05   44. 71   n/ a      . 000
07258>                  +     1. 0 02: W CLAR_Mn          1. 77      . 213 No_date   27: 58   43. 97   n/ a      . 000
07259>              SUM=      1. 0 01: TODD             120. 03    11. 699 No_date   28: 03   44. 79   n/ a      . 000
07260> R0010: CO0289- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07261>      SAVE HYD              1. 0 01: TODD             120. 03    11. 699 No_date   28: 03   44. 79   n/ a      . 000
07262>        fname : TODD. 0010
07263>        remark: Total Flows at Todd Drain
07264> #*************************************************************************
07265> #     Todd Pond 3
07266> #     - Rating curve obtained from Barrhaven South MSS modeling
07267> #     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
07268> #*************************************************************************
07269> R0010: CO0290- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07270>      ROUTE RESERVOIR - >     1. 0 02: TODD             120. 03    11. 699 No_date   28: 03   44. 79   n/ a      . 000
07271>                  out <=    1. 0 01: MS_P3            120. 03     6. 151 No_date   28: 20   44. 79   n/ a      . 000
07272>              overflow <=   1. 0 03: P3- OVF             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07273>        [ MkSt olked= . 2461E+ 01  m3,  Tot Orf Vol= . 0000E+ 00  m3,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
07274> R0010: CO0291- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07275>      ADD HYD               1. 0 02: GreenB           54717. 74  85. 389 No_date   35: 58   23. 01   n/ a      . 000
07276>                  +     1. 0 02: MS_P3            120. 03     6. 151 No_date   28: 20   44. 79   n/ a      . 000
07277>                  +     1. 0 02: P3- OVF             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07278>                  +     1. 0 02: TODD_MN2j           . 00       . 011 No_date   28: 00   44. 92   n/ a      . 000
07279>                  +     1. 0 02: A2- MI              . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07280>              SUM=      1. 0 01: SN_TO            54837. 78  85. 715 No_date   35: 58   23. 06   n/ a      . 000
07281> R0010: CO0292- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07282>      SAVE HYD              1. 0 01: SN_TO            54837. 78  85. 715 No_date   35: 58   23. 06   n/ a      . 000
07283>        fname : SN_TO. 0010
07284>        remark: Total Flows at Todd Drain
07285> #
07286> # Hydrograph from Todd Drain routed to Corrigan Drain
07287> # Channel X- Section obtained from RVCA Hydraulic Model - Station 2462
07288> # 2021- 02- 19 Change the slope from 0. 033 % (as per Stantec Report 2007) to 0. 05 % so the model will be more stable and g
07289> R0010: CO0293- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07290>      ROUTE CHANNEL     - >     1. 0 02: SN_TO            54837. 78  85. 715 No_date   35: 58   23. 06   n/ a      . 000
07291> *      [ RDT= 1. 00]  out <-     1. 0 01: N_TO             54837. 78  85. 046 No_date   37: 15   23. 06   n/ a      . 000
07292>        [ L/ S/ n=  280. /  . 050/ . 045]
07293>        [ Vmx=  . 881: Dmx= 2. 851]
07294> R0010: CO0294- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07295>      SAVE HYD              1. 0 01: N_TO             54837. 78  85. 046 No_date   37: 15   23. 06   n/ a      . 000
07296>        fname : N_TO. 0010
07297>        remark: Total inflows at Station 2462
07298> #*************************************************************************
07299> #     Catchment CORRIG
07300> #     - To Corrigan Drain (south of the Jock)
07301> #     - Primarily Developed (medium density)
07302> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
07303> #*************************************************************************
07304> R0010: CO0295- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07305>      CONTINUOUS STANDHYD   1. 0 01: corr1              15. 87      2. 113 No_date   28: 01   48. 23   . 746     . 000
07306>        [ XI M= . 63: TI M= . 63]
07307>        [ LOSS= 2 : CN= 77. 0]
07308>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07309>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 325. : MNI=. 013: SCI=    . 0]
07310>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07311>        [ SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07312> R0010: CO0296- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07313>      COMPUTE DUALHYD       1. 0 01: corr1             15. 87      2. 113 No_date   28: 01   48. 23   n/ a      . 000
07314>        Major System    /     1. 0 02: corr1- MI          . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07315>        Minor System    \     1. 0 03: corr1- MN        15. 87      1. 818 No_date   28: 09   48. 38   n/ a      . 000
07316>        [ MjSys St o= . 8936E+ 02,  Tot Orf Vol= . 0000E+ 00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
07317> R0010: CO0297- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07318>      CONTINUOUS STANDHYD   1. 0 01: corr2             12. 47       . 209 No_date   29: 11   26. 85   . 415     . 000
07319>        [ CN= 77. 0: N= 3. 00: Tp= 1. 10]
07320>        [ I aREC i mp=   4. 00: SMN= 31. 15: SMX= 207. 66: SK=  . 010]
07321>        [ I nterEvent Time=  12. 00]
07322> R0010: CO0298- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07323>      CONTINUOUS STANDHYD   1. 0 01: A1- Corrig        15. 75      1. 640 No_date   28: 02   40. 97   . 633     . 000
07324>        [ XI M= . 42: TI M= . 52]
07325>        [ LOSS= 2 : CN= 75. 0]
07326>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07327>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 324. : MNI=. 013: SCI=    . 0]
07328>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07329>        [ SMN= 33. 81: SMX= 225. 43: SK=  . 010]
07330> R0010: CO0299- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07331>      COMPUTE DUALHYD       1. 0 01: A1- Corrig        15. 75      1. 640 No_date   28: 02   40. 97   n/ a      . 000
07332>        Major System    /     1. 0 02: A1- MI             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07333>        Minor System    \     1. 0 03: A1- MN           15. 75      1. 640 No_date   28: 02   40. 97   n/ a      . 000
07334>        [ MjSys St o= . 0000E+ 00,  Tot Orf Vol= . 0000E+ 00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
07335> R0010: CO0300- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07336>      CONTINUOUS STANDHYD   1. 0 01: B1                 2. 77       . 072 No_date   28: 09   16. 64   . 257     . 000
07337>        [ CN= 56. 0: N= 3. 00: Tp=  . 23]
07338>        [ I aREC i mp=   4. 00: SMN= 79. 69: SMX= 531. 24: SK=  . 010]
07339>        [ I nterEvent Time=  12. 00]
07340> R0010: CO0301- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07341>      CONTINUOUS STANDHYD   1. 0 01: A4                 1. 27       . 178 No_date   28: 00   48. 63   . 752     . 000
07342>        [ XI M= . 65: TI M= . 65]
07343>        [ LOSS= 2 : CN= 75. 0]
07344>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07345>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 253. : MNI=. 013: SCI=    . 0]
07346>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07347>        [ SMN= 33. 81: SMX= 225. 43: SK=  . 010]
07348> R0010: CO0302- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07349>      COMPUTE DUALHYD       1. 0 01: A4                 1. 27       . 178 No_date   28: 00   48. 63   n/ a      . 000
07350>        Major System    /     1. 0 02: A4- MI             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07351>        Minor System    \     1. 0 03: A4- MN             1. 27       . 178 No_date   28: 00   48. 63   n/ a      . 000
07352>        [ MjSys St o= . 0000E+ 00,  Tot Orf Vol= . 0000E+ 00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
07353> R0010: CO0303- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07354>      ADD HYD               1. 0 02: A1- MI             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07355>                  +     1. 0 02: A1- MN           15. 75      1. 640 No_date   28: 02   40. 97   n/ a      . 000
07356>                  +     1. 0 02: corr1- MI          . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07357>                  +     1. 0 02: corr1- MN        15. 87      1. 818 No_date   28: 09   48. 38   n/ a      . 000
07358>                  +     1. 0 02: corr2            12. 47       . 209 No_date   29: 11   26. 85   n/ a      . 000
07359>                  +     1. 0 02: A4- MI             2. 77       . 072 No_date   28: 09   16. 64   n/ a      . 000
07360>                  +     1. 0 02: A4- MN             1. 27       . 178 No_date   28: 00   48. 63   n/ a      . 000
07361>              SUM=      1. 0 01: MH01             48. 13     3. 734 No_date   28: 02   38. 56   n/ a      . 000
07362> R0010: CO0304- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07363>      SAVE HYD              1. 0 01: MH01             48. 13     3. 734 No_date   28: 02   38. 56   n/ a      . 000
07364>        fname : MH01. 0010
07365>        remark: Total Flows at MH01
07366> R0010: CO0305- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07367>      ROUTE PIPE            - >     1. 0 02: MH01             48. 13     3. 734 No_date   28: 02   38. 56   n/ a      . 000
07368> *    [ RDT= 1. 00]  out <-     1. 0 01: 101- 102         48. 13     3. 662 No_date   28: 03   38. 56   n/ a      . 000
07369>        [ L/ S/ n=  368. /  . 540/ . 013]
07370>        [ Vmx= 3. 084: Dmx= 1. 088]
07371>        [ Di n=  1. 05: Duse d=  1. 33]
07372> R0010: CO0306- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07373>      ADD HYD               1. 0 02: A2- MN           25. 50      1. 818 No_date   27: 57   40. 97   n/ a      . 000
07374>                  +     1. 0 02: 101- 102         48. 13     3. 662 No_date   28: 03   38. 56   n/ a      . 000
07375>              SUM=      1. 0 01: MH02             73. 63     5. 480 No_date   28: 03   39. 39   n/ a      . 000
07376> R0010: CO0307- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07377>      SAVE HYD              1. 0 01: MH02             73. 63     5. 480 No_date   28: 03   39. 39   n/ a      . 000
07378>        fname : MH02. 0010
07379>        remark: Total Flows at MH02
07380> R0010: CO0308- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07381>      CONTINUOUS STANDHYD   1. 0 01: A5                 1. 60       . 236 No_date   28: 01   51. 11   . 790     . 000
07382>        [ XI M= . 71: TI M= . 71]
07383>        [ LOSS= 2 : CN= 75. 0]
07384>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07385>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 300. : MNI=. 013: SCI=    . 0]
07386>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07387>        [ SMN= 33. 81: SMX= 225. 43: SK=  . 010]
07388> R0010: CO0309- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07389>      ADD HYD               1. 0 02: A4- MI             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07390>                  +     1. 0 02: A5                 1. 60       . 236 No_date   28: 01   51. 11   n/ a      . 000
07391>              SUM=      1. 0 01: AST                1. 60       . 236 No_date   28: 01   51. 11   n/ a      . 000
07392> R0010: CO0310- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07393>      COMPUTE DUALHYD       1. 0 01: AST                1. 60       . 236 No_date   28: 01   51. 11   n/ a      . 000
07394>        Major System    /     1. 0 02: A5- MI             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07395>        Minor System    \     1. 0 03: A5- MN             1. 60       . 236 No_date   28: 01   51. 11   n/ a      . 000
07396>        [ MjSys St o= . 0000E+ 00,  Tot Orf Vol= . 0000E+ 00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
07397> R0010: CO0311- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07398>      ROUTE PIPE            - >     1. 0 02: MH02             73. 63     5. 480 No_date   28: 03   39. 39   n/ a      . 000
07399> *    [ RDT= 1. 00]  out <-     1. 0 01: 102- 103         73. 63     5. 291 No_date   28: 06   39. 39   n/ a      . 000
07400>        [ L/ S/ n=  504. /  . 280/ . 013]
07401>        [ Vmx= 2. 654: Dmx= 1. 421]
07402>        [ Di n=  1. 50: Duse d=  1. 73]
07403> R0010: CO0312- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07404>      ADD HYD               1. 0 02: 102- 103         73. 63     5. 291 No_date   28: 06   39. 39   n/ a      . 000
07405>                  +     1. 0 02: A5- MN             1. 60       . 236 No_date   28: 01   51. 11   n/ a      . 000
07406>              SUM=      1. 0 01: MH03             75. 23     5. 462 No_date   28: 05   39. 64   n/ a      . 000
07407> R0010: CO0313- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07408>      SAVE HYD              1. 0 01: MH03             75. 23     5. 462 No_date   28: 05   39. 64   n/ a      . 000
07409>        fname : MH03. 0010
07410>        remark: Total Flows at MH03
07411> R0010: CO0314- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07412>      ROUTE PIPE            - >     1. 0 02: MH03             75. 23     5. 462 No_date   28: 05   39. 64   n/ a      . 000
07413>      [ RDT= 1. 00]  out <-     1. 0 01: 103- 104         75. 23     5. 382 No_date   28: 07   39. 64   n/ a      . 000
07414>        [ L/ S/ n=  438. /  . 460/ . 013]
07415>        [ Vmx= 3. 265: Dmx= 1. 205]
07416>        [ Di n=  1. 65: Duse d=  1. 65]
07417> R0010: CO0315- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07418>      CONTINUOUS STANDHYD   1. 0 01: A6                 1. 56       . 232 No_date   28: 00   51. 11   . 790     . 000
07419>        [ XI M= . 71: TI M= . 71]
07420>        [ LOSS= 2 : CN= 75. 0]
07421>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
07422>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 280. : MNI=. 013: SCI=    . 0]
07423>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
07424>        [ SMN= 33. 81: SMX= 225. 43: SK=  . 010]
07425> R0010: CO0316- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - DWFcms
07426>      ADD HYD               1. 0 02: A5- MI             . 00       . 000 No_date   0: 00     . 00   n/ a      . 000
07427>                  +     1. 0 02: A6                 1. 56       . 232 No_date   28: 00   51. 11   n/ a      . 000
07428>              SUM=      1. 0 01: A6T                1. 56       . 232 No_date   28: 00   51. 11   n/ a      . 000
07429> R0010: CO0317- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - -
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07481>        fname : MH33. 0010
07482>        remark: Total Flows at MH33
07483> R0010: C00327-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07484>     ROUTE PIPE          ->       1. 0 02: MH33          17. 90      1. 478 No_date   28: 12   41. 30   n/ a      .000
07485> *   [ RDT= 1. 00]  out <-        1. 0 01: 333- 335      17. 90      1. 450 No_date   28: 14   41. 30   n/ a      .000
07486>       [ L/ S/ n=  251. /  . 100/ . 013]
07487>       [ Vmx= 1. 300: Dmx= 1. 054]
07488>       [ Di n= 1. 20: Used= 1. 28]
07489> R0010: C00328-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07490>     ROUTE PIPE          ->       1. 0 02: 333- 335      17. 90      1. 450 No_date   28: 14   41. 30   n/ a      .000
07491> *   [ RDT= 1. 00]  out <-        1. 0 01: 335- 338      17. 90      1. 447 No_date   28: 14   41. 30   n/ a      .000
07492>       [ L/ S/ n=  185. /  . 100/ . 013]
07493>       [ Vmx= 1. 294: Dmx= 1. 047]
07494>       [ Di n= 1. 20: Used= 1. 28]
07495> R0010: C00329-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07496>     ROUTE PIPE          ->       1. 0 02: 335- 338      17. 90      1. 447 No_date   28: 14   41. 30   n/ a      .000
07497> *   [ RDT= 1. 00]  out <-        1. 0 01: 338- 340      17. 90      1. 418 No_date   28: 15   41. 30   n/ a      .000
07498>       [ L/ S/ n=  233. /  . 100/ . 013]
07499>       [ Vmx= 1. 325: Dmx=  . 963]
07500>       [ Di n= 1. 35: Used= 1. 35]
07501> R0010: C00330-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07502>     CONTI NUOUS STANDHYD     1. 0 01: B4            7. 60       . 768 No_date   28: 02   41. 19   . 637     .000
07503>       [ Xl M= 4. 41: TI MP= . 54]
07504>       [ LOSS= 2 : CN= 75. 0]
07505>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07506>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 388. : MNI = . 013: SCI =    . 0]
07507>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07508>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07509> R0010: C00331-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07510>     COMPUTE DUALHYD          1. 0 01: B4            7. 60       . 768 No_date   28: 02   41. 19   n/ a      .000
07511>       Major System    /      1. 0 02: B4- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07512>       Minor System    \      1. 0 03: B4- MN          7. 60       . 655 No_date   27: 58   41. 31   n/ a      .000
07513>       [ MJ SysSto=. 3770E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07514> R0010: C00332-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07515>     ADD HYD                  1. 0 02: 338- 340      17. 90      1. 418 No_date   28: 15   41. 30   n/ a      .000
07516>                         +    1. 0 01: B4- MN          7. 60       . 655 No_date   27: 58   41. 31   n/ a      .000
07517>                         SUM=  1. 0 01: MH340         25. 50      2. 022 No_date   28: 12   41. 30   n/ a      .000
07518> R0010: C00333-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07519>     SAVE HYD                 1. 0 01: MH340         25. 50      2. 022 No_date   28: 12   41. 30   n/ a      .000
07520>       fname : MH340. 0010
07521>       remark: Total Flows at MH340
07522> R0010: C00334-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07523>     ROUTE PIPE          ->       1. 0 02: MH340         25. 50      2. 022 No_date   28: 12   41. 30   n/ a      .000
07524> *   [ RDT= 1. 00]  out <-        1. 0 01: 340- 104      25. 50      1. 986 No_date   28: 12   41. 30   n/ a      .000
07525>       [ L/ S/ n=  240. /  . 150/ . 013]
07526>       [ Vmx= 1. 706: Dmx=  . 895]
07527>       [ Di n= 1. 65: Used= 1. 65]
07528> R0010: C00335-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07529>     ADD HYD                  1. 0 02: 340- 104      25. 50      1. 986 No_date   28: 12   41. 30   n/ a      .000
07530>                         +    1. 0 02: MH104         106. 93     8. 816 No_date   28: 05   41. 66   n/ a      .000
07531>                         SUM=  1. 0 01: MH104T        132. 43     10. 636 No_date  28: 05   41. 59   n/ a      .000
07532> R0010: C00336-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07533>     ROUTE PIPE          ->       1. 0 02: MH104T        132. 43     10. 636 No_date  28: 05   41. 59   n/ a      .000
07534> *   [ RDT= 1. 00]  out <-        1. 0 01: 104- 105      132. 43     10. 007 No_date  28: 06   41. 59   n/ a      .000
07535>       [ L/ S/ n=  380. /  . 100/ . 013]
07536>       [ Vmx= 2. 071: Dmx= 1. 952]
07537>       [ HGTI N= 2. 30:  WI DTH= 2. 63]
07538> R0010: C00337-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07539>     CONTI NUOUS STANDHYD     1. 0 01: B5            2. 20       . 291 No_date   28: 00   45. 32   . 701     .000
07540>       [ Xl M= 5. 57: TI MP= . 57]
07541>       [ LOSS= 2 : CN= 75. 0]
07542>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07543>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 187. : MNI = . 013: SCI =    . 0]
07544>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07545>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07546> R0010: C00338-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07547>     COMPUTE DUALHYD          1. 0 01: B5            2. 20       . 291 No_date   28: 00   45. 32   n/ a      .000
07548>       Major System    /      1. 0 02: B5- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07549>       Minor System    \      1. 0 03: B5- MN          2. 20       . 260 No_date   27: 57   45. 39   n/ a      .000
07550>       [ MJ SysSto=. 6886E+01,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07551> R0010: C00339-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07552>     CONTI NUOUS STANDHYD     1. 0 01: A8            . 96        . 151 No_date   28: 00   51. 11   . 790     .000
07553>       [ Xl M= 5. 71: TI MP= . 71]
07554>       [ LOSS= 2 : CN= 75. 0]
07555>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07556>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 186. : MNI = . 013: SCI =    . 0]
07557>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07558>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07559> R0010: C00340-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07560>     ADD HYD                  1. 0 02: A6- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07561>                         +    1. 0 02: A8            . 96        . 151 No_date   28: 00   51. 11   n/ a      .000
07562>                         SUM=  1. 0 01: A8T           . 96        . 151 No_date   28: 00   51. 11   n/ a      .000
07563> R0010: C00341-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07564>     COMPUTE DUALHYD          1. 0 01: A8T           . 96        . 151 No_date   28: 00   51. 11   n/ a      .000
07565>       Major System    /      1. 0 02: A8- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07566>       Minor System    \      1. 0 03: A8- MN          . 96        . 151 No_date   28: 00   51. 11   n/ a      .000
07567>       [ MJ SysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07568> R0010: C00342-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07569>     ADD HYD                  1. 0 02: 104- 105      132. 43     10. 007 No_date  28: 06   41. 59   n/ a      .000
07570>                         +    1. 0 02: B5- MN          2. 20       . 260 No_date   27: 57   45. 39   n/ a      .000
07571>                         +    1. 0 02: A8- MN          . 96        . 151 No_date   28: 00   51. 11   n/ a      .000
07572>                         +    1. 0 02: TODD_MNJ        . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07573>                         SUM=  1. 0 01: MH105         135. 59     10. 343 No_date  28: 05   41. 72   n/ a      .000
07574> R0010: C00343-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07575>     SAVE HYD                 1. 0 01: MH105         135. 59     10. 343 No_date  28: 05   41. 72   n/ a      .000
07576>       fname : MH105. 0010
07577>       remark: Total Flows at MH105
07578> R0010: C00344-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07579> *   DI VERT HYD          ->       1. 0 01: A8- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07580>           diverted <=            1. 0 02: A8- MJ- JR      . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07581>           diverted <=            1. 0 03: A8- MJ- B6      . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07582> R0010: C00345-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07583>     DI VERT HYD          ->       1. 0 01: MH105         135. 59     10. 343 No_date  28: 05   41. 72   n/ a      .000
07584>           diverted <=            1. 0 02: MH105- JR       28. 70      7. 335 No_date  28: 05   41. 72   n/ a      .000
07585>           diverted <=            1. 0 03: MH105- B6       106. 90     3. 008 No_date  28: 05   41. 72   n/ a      .000
07586> R0010: C00346-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07587>     CONTI NUOUS STANDHYD     1. 0 01: B7            7. 19       . 792 No_date   28: 01   41. 19   . 637     .000
07588>       [ Xl M= 4. 41: TI MP= . 54]
07589>       [ LOSS= 2 : CN= 75. 0]
07590>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07591>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 211. : MNI = . 013: SCI =    . 0]
07592>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07593>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07594> R0010: C00347-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07595>     ADD HYD                  1. 0 02: B4- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07596>                         +    1. 0 02: B7            7. 19       . 792 No_date   28: 01   41. 19   n/ a      .000
07597>                         SUM=  1. 0 01: B7- B4MI      7. 19       . 792 No_date   28: 01   41. 19   n/ a      .000
07598> R0010: C00348-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07599>     COMPUTE DUALHYD          1. 0 01: B7- B4MI      7. 19       . 792 No_date   28: 01   41. 19   n/ a      .000
07600>       Major System    /      1. 0 02: B7R- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07601>       Minor System    \      1. 0 03: B7R- MN         7. 19       . 629 No_date   27: 55   41. 31   n/ a      .000
07602>       [ MJ SysSto=. 5641E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07603> R0010: C00349-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07604>     ROUTE PIPE          ->       1. 0 02: B7R- MN         7. 19       . 629 No_date   27: 55   41. 31   n/ a      .000
07605> *   [ RDT= 1. 00]  out <-        1. 0 01: 360- 106A     7. 19       . 628 No_date   28: 11   41. 31   n/ a      .000
07606>       [ L/ S/ n=  167. /  . 100/ . 013]
07607>       [ Vmx= 1. 089: Dmx=  . 665]
07608>       [ Di n= 1. 05: Used= 1. 05]
07609> R0010: C00350-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07610>     CONTI NUOUS STANDHYD     1. 0 01: B6            3. 29       . 376 No_date   28: 00   41. 19   . 637     .000
07611>       [ Xl M= 4. 41: TI MP= . 54]
07612>       [ LOSS= 2 : CN= 75. 0]
07613>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07614>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 148. : MNI = . 013: SCI =    . 0]
07615>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07616>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07617> R0010: C00351-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07618>     COMPUTE DUALHYD          1. 0 01: B6            3. 29       . 376 No_date   28: 00   41. 19   n/ a      .000
07619>       Major System    /      1. 0 02: B6- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07620>       Minor System    \      1. 0 03: B6- MN          3. 29       . 064 No_date   27: 36   41. 22   n/ a      .000
07621>       [ MJ SysSto=. 3813E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07622> R0010: C00352-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07623>     CONTI NUOUS STANDHYD     1. 0 01: EX- LAND      32. 50      3. 367 No_date   28: 02   41. 86   . 647     .000
07624>       [ Xl M= 4. 50: TI MP= . 50]
07625>       [ LOSS= 2 : CN= 74. 0]
07626>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07627>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 465. : MNI = . 013: SCI =    . 0]
07628>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07629>       [ SMN= 36. 67:  SMAX= 244. 49:  SK= . 010]
07630> R0010: C00353-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07631>     COMPUTE DUALHYD          1. 0 01: EX- LAND      32. 50      3. 367 No_date   28: 02   41. 86   n/ a      .000
07632>       Major System    /      1. 0 02: EX- LAND- MI    . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07633>       Minor System    \      1. 0 03: EX- LAND- MN    32. 50      2. 275 No_date  27: 55   41. 99   n/ a      .000
07634>       [ MJ SysSto=. 5949E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07635> R0010: C00354-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07636>     ADD HYD                  1. 0 02: B7R- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07637>                         +    1. 0 02: EX- LAND- MI    . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07638>                         +    1. 0 02: B5- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07639>                         +    1. 0 02: B6- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07640>                         +    1. 0 02: B6- MN          3. 29       . 064 No_date   27: 36   41. 22   n/ a      .000
07641>                         +    1. 0 02: A8- MJ- B6      . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07642>                         SUM=  1. 0 01: B6- B7ExMI     3. 29       . 064 No_date   27: 36   41. 22   n/ a      .000
07643> R0010: C00355-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07644>     COMPUTE DUALHYD          1. 0 01: B6- B7ExMI    3. 29       . 064 No_date   27: 36   41. 22   n/ a      .000
07645>       Major System    /      1. 0 02: B6R- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07646>       Minor System    \      1. 0 03: B6R- MN         3. 29       . 064 No_date   27: 36   41. 22   n/ a      .000
07647>       [ MJ SysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07648> R0010: C00356-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07649>     ROUTE PIPE          ->       1. 0 02: MH105- B6       106. 90     3. 008 No_date   28: 05   41. 72   n/ a      .000
07650> *   [ RDT= 1. 00]  out <-        1. 0 01: 105- 106A     106. 90     3. 006 No_date   28: 12   41. 72   n/ a      .000
07651>       [ L/ S/ n=  208. /  . 100/ . 013]
07652>       [ Vmx= 1. 597: Dmx= 1. 249]
07653>       [ Di n= 1. 80: Used= 1. 80]
07654> R0010: C00357-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07655>     ADD HYD                  1. 0 02: 360- 106A     7. 19       . 628 No_date   28: 11   41. 31   n/ a      .000
07656>                         +    1. 0 02: 105- 106A     106. 90     3. 006 No_date   28: 12   41. 72   n/ a      .000
07657>                         +    1. 0 02: B6R- MN         3. 29       . 064 No_date   27: 36   41. 22   n/ a      .000
07658>                         +    1. 0 02: B6R- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07659>                         SUM=  1. 0 01: MH106A        117. 38     3. 698 No_date   28: 11   41. 68   n/ a      .000
07660> R0010: C00358-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07661>     SAVE HYD                 1. 0 01: MH106A        117. 38     3. 698 No_date   28: 11   41. 68   n/ a      .000
07662>       fname : MH106A 0010
07663>       remark: Total Flows at MH106A
07664> R0010: C00359-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07665>     ROUTE PIPE          ->       1. 0 02: MH106A        117. 38     3. 698 No_date   28: 11   41. 68   n/ a      .000
07666> *   [ RDT= 1. 00]  out <-        1. 0 01: 106A- 106     117. 38     3. 659 No_date   28: 06   41. 68   n/ a      .000
07667>       [ L/ S/ n=  190. /  . 100/ . 013]
07668>       [ Vmx= 1. 635: Dmx= 1. 487]
07669>       [ Di n= 1. 80: Used= 1. 81]
07670> R0010: C00360-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07671>     CONTI NUOUS STANDHYD     1. 0 01: A9            2. 44       . 365 No_date   28: 00   51. 11   . 790     .000
07672>       [ Xl M= 5. 71: TI MP= . 71]
07673>       [ LOSS= 2 : CN= 75. 0]
07674>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07675>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 262. : MNI = . 013: SCI =    . 0]
07676>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07677>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07678> R0010: C00361-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07679>     COMPUTE DUALHYD          1. 0 01: A9            2. 44       . 365 No_date   28: 00   51. 11   n/ a      .000
07680>       Major System    /      1. 0 02: A9- MI          . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07681>       Minor System    \      1. 0 03: A9- MN          2. 44       . 365 No_date   28: 00   51. 11   n/ a      .000
07682> R0010: C00362-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07683>     ADD HYD                  1. 0 02: 106A- 106     117. 38     3. 659 No_date   28: 06   41. 68   n/ a      .000
07684>                         +    1. 0 02: A9- MN          2. 44       . 365 No_date   28: 00   51. 11   n/ a      .000
07685>                         SUM=  1. 0 01: MH106         119. 82     3. 992 No_date   28: 02   41. 87   n/ a      .000
07686> R0010: C00363-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07687>     SAVE HYD                 1. 0 01: MH106         119. 82     3. 992 No_date   28: 02   41. 87   n/ a      .000
07688>       fname : MH106. 0010
07689>       remark: Total Flows at MH106
07690> R0010: C00364-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07691>     ROUTE PIPE          ->       1. 0 02: MH106         119. 82     3. 992 No_date   28: 02   41. 87   n/ a      .000
07692> *   [ RDT= 1. 00]  out <-        1. 0 01: 106- 107      119. 82     3. 962 No_date   28: 03   41. 87   n/ a      .000
07693>       [ L/ S/ n=  123. /  . 100/ . 013]
07694>       [ Vmx= 1. 666: Dmx= 1. 530]
07695>       [ Di n= 1. 80: Used= 1. 86]
07696> R0010: C00365-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07697>     CONTI NUOUS STANDHYD     1. 0 01: A10           4. 14       . 416 No_date   28: 01   38. 46   . 595     .000
07698>       [ Xl M= 5. 35: TI MP= . 47]
07699>       [ LOSS= 2 : CN= 75. 0]
07700>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07701>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 183. : MNI = . 013: SCI =    . 0]
07702>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07703>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07704> R0010: C00366-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07705>     COMPUTE DUALHYD          1. 0 01: A10           4. 14       . 416 No_date   28: 01   38. 46   n/ a      .000
07706>       Major System    /      1. 0 02: A10- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07707>       Minor System    \      1. 0 03: A10- MN         4. 14       . 310 No_date   27: 55   38. 48   n/ a      .000
07708>       [ MJ SysSto=. 4172E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07709> R0010: C00367-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07710>     CONTI NUOUS STANDHYD     1. 0 01: A11           10. 61      1. 251 No_date   28: 01   45. 36   . 701     .000
07711>       [ Xl M= 5. 53: TI MP= . 62]
07712>       [ LOSS= 2 : CN= 75. 0]
07713>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07714>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 379. : MNI = . 013: SCI =    . 0]
07715>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07716>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07717> R0010: C00368-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07718>     COMPUTE DUALHYD          1. 0 01: A11           10. 61      1. 251 No_date   28: 01   45. 36   n/ a      .000
07719>       Major System    /      1. 0 02: A11- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07720>       Minor System    \      1. 0 03: A11- MN         10. 61      . 993 No_date   27: 56   45. 38   n/ a      .000
07721>       [ MJ SysSto=. 1016E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07722> R0010: C00369-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07723>     ADD HYD                  1. 0 02: 106- 107      119. 82     3. 962 No_date   28: 03   41. 87   n/ a      .000
07724>                         +    1. 0 02: A10- MN         4. 14       . 310 No_date   27: 55   38. 48   n/ a      .000
07725>                         +    1. 0 02: A11- MN         10. 61      . 993 No_date   27: 56   45. 38   n/ a      .000
07726>                         SUM=  1. 0 01: MH107         134. 57     5. 265 No_date   28: 03   42. 04   n/ a      .000
07727> R0010: C00370-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07728>     SAVE HYD                 1. 0 01: MH107         134. 57     5. 265 No_date   28: 03   42. 04   n/ a      .000
07729>       fname : MH107. 0010
07730>       remark: Total Flows at MH107
07731> R0010: C00371-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07732>     ROUTE PIPE          ->       1. 0 02: MH107         134. 57     5. 265 No_date   28: 03   42. 04   n/ a      .000
07733> *   [ RDT= 1. 00]  out <-        1. 0 01: 107- 119      134. 57     5. 251 No_date   28: 05   42. 04   n/ a      .000
07734>       [ L/ S/ n=  114. /  . 120/ . 013]
07735>       [ Vmx= 1. 912: Dmx= 1. 640]
07736>       [ Di n= 1. 80: Used= 2. 00]
07737> R0010: C00372-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07738>     ROUTE PIPE          ->       1. 0 02: 107- 119      134. 57     5. 251 No_date   28: 05   42. 04   n/ a      .000
07739> *   [ RDT= 1. 00]  out <-        1. 0 01: 119- 108      134. 57     5. 248 No_date   28: 06   42. 04   n/ a      .000
07740>       [ L/ S/ n=  66. /  . 120/ . 013]
07741>       [ Vmx= 1. 911: Dmx= 1. 639]
07742>       [ Di n= 1. 80: Used= 2. 00]
07743> R0010: C00373-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07744>     CONTI NUOUS STANDHYD     1. 0 01: A12           12. 29      1. 385 No_date   28: 01   41. 19   . 637     .000
07745>       [ Xl M= 4. 41: TI MP= . 54]
07746>       [ LOSS= 2 : CN= 75. 0]
07747>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07748>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 183. : MNI = . 013: SCI =    . 0]
07749>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07750>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07751> R0010: C00374-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07752>     COMPUTE DUALHYD          1. 0 01: A12           12. 29      1. 385 No_date   28: 01   41. 19   n/ a      .000
07753>       Major System    /      1. 0 02: A12- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07754>       Minor System    \      1. 0 03: A12- MN         12. 29      1. 029 No_date   27: 54   41. 27   n/ a      .000
07755>       [ MJ SysSto=. 1401E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
07756> R0010: C00375-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07757>     CONTI NUOUS STANDHYD     1. 0 01: A13           2. 59       . 368 No_date   28: 01   51. 11   . 790     .000
07758>       [ Xl M= 5. 71: TI MP= . 71]
07759>       [ LOSS= 2 : CN= 75. 0]
07760>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07761>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 379. : MNI = . 013: SCI =    . 0]
07762>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07763>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07764> R0010: C00376-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07765>     COMPUTE DUALHYD          1. 0 01: A13           2. 59       . 368 No_date   28: 01   51. 11   n/ a      .000
07766>       Major System    /      1. 0 02: A13- MI         . 00       . 000 No_date   0: 00    . 00     n/ a      .000
07767>       Minor System    \      1. 0 03: A13- MN         2. 59       . 368 No_date   28: 01   51. 11   n/ a      .000
07768> R0010: C00377-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07769>     CONTI NUOUS STANDHYD     1. 0 01: Pond- Block   2. 94       . 309 No_date   28: 00   38. 90   . 601     .000
07770>       [ Xl M= 4. 41: TI MP= . 41]
07771>       [ LOSS= 2 : CN= 75. 0]
07772>       [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
07773>       [ Impervious    area: I Aimp= 1. 57: SLPI = 1. 00: LGI = 183. : MNI = . 013: SCI =    . 0]
07774>       [ I aREC mp=  4. 00: I aRECper=  4. 00]
07775>       [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
07776> R0010: C00378-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07777>     ADD HYD                  1. 0 02: 119- 108      134. 57     5. 248 No_date   28: 06   42. 04   n/ a      .000
07778>                         +    1. 0 02: A13- MN         2. 59       . 368 No_date   28: 01   51. 11   n/ a      .000
07779>                         +    1. 0 02: A12- MN         12. 29      1. 029 No_date   27: 54   41. 27   n/ a      .000
07780>                         SUM=  1. 0 01: MH108         149. 45     6. 598 No_date   28: 04   42. 14   n/ a      .000
07781> R0010: C00379-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07782>     SAVE HYD                 1. 0 01: MH108         149. 45     6. 598 No_date   28: 04   42. 14   n/ a      .000
07783>       fname : MH108. 0010
07784>       remark: Total Flows at MH108
07785> R0010: C00380-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07786>     ROUTE PIPE          ->       1. 0 02: MH108         149. 45     6. 598 No_date   28: 04   42. 14   n/ a      .000
07787> *   [ RDT= 1. 00]  out <-        1. 0 01: 108- 116      149. 45     6. 590 No_date   28: 05   42. 14   n/ a      .000
07788>       [ L/ S/ n=  77. 7 . 130/ . 013]
07789>       [ Vmx= 2. 085: Dmx= 1. 759]
07790>       [ Di n= 1. 80: Used= 2. 14]
07791> R0010: C00381-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_h: mn----RVmm R. C.----DWF cms
07792>     ROUTE PIPE          ->       1. 0 02: 108- 116      149. 45     6. 590 No_date   28: 05   42. 14   n/ a      .000
07793> *   [ RDT= 1. 00]  out <-        1. 0 01: 116- corrig   149. 45     6. 577 No_date   28: 06   42. 14   n/ a      .000
07794>       [ L/ S/ n=  80. /  . 130/ . 013]
07795>       
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07855> #     - Rating curve obtained from CCL hydraulic modeling
07856> #*************************************************************************
07857> R0010: C00389-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07858>       ROUTE RESERVOIR ->       1. 0 02: MLLS          175. 99    12. 212 No_date    28: 07    36. 76  n/a      .000
07859>                    out <=      1. 0 01: MLL_P         175. 99     4. 030 No_date    28: 43    36. 76  n/a      .000
07860>              overflow <=       1. 0 03: MLL-OV           .00          .000 No_date     0: 00      .00  n/a      .000
07861>       [MxStOlKed=.2299E+01  m3,  TotOvfVol=.0000E+00   m3,  N-Ovf=     0,  TotDurOvf=     0. hrs]
07862> R0010: C00390-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07863>       ADD HYD                  1. 0 02: N_MI         55018. 86    85. 374 No_date    37: 18    23. 12  n/a      .000
07864>                          +     1. 0 02: MI L-OV           .00          .000 No_date     0: 00      .00  n/a      .000
07865>                          +     1. 0 02: MI LL_P       175. 99     4. 030 No_date    28: 43    36. 76  n/a      .000
07866>                    SUM=        1. 0 01: SN_MI        55194. 85    85. 786 No_date    37: 17    23. 16  n/a      .000
07867> R0010: C00391-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07868>       SAVE HYD                 1. 0 01: SN_MI        55194. 85    85. 786 No_date    37: 17    23. 16  n/a      .000
07869>          fname : SN_MI. 0010
07870>          remark: Total Flows at Jockvale Road
07871> #
07872> # Hydrograph from Jockvale Road routed to Heart's Desire
07873> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
07874> #
07875> R0010: C00392-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07876>       ROUTE CHANNEL    ->       1. 0 02: SN_MI        55194. 85    85. 786 No_date    37: 17    23. 16  n/a      .000
07877>          [RDT= 1. 00] out <-      1. 0 01: N_DE         55194. 85    85. 515 No_date    37: 21    23. 16  n/a      .000
07878>          [L/S/n= 1962. /  . 223/ . 045]
07879>          [Vmax= 1. 390: Dmax= 2. 066]
07880> #*************************************************************************
07881> #     Catchment DESIRE
07882> #     - To Jock River (north of the Jock)
07883> #     - Rural-estate subdivision (Heart's Desire Community)
07884> #*************************************************************************
07885> R0010: C00393-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07886>       CONTINUOUS STANDHYD      1. 0 01: DESIRE          23. 78     1. 694 No_date    28: 03    32. 93  . 509    .000
07887>          [XIMP= .25: TIMP= .25]
07888>          [LOSS= 2 : CN= 77. 0]
07889>          [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
07890>          [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=     .0]
07891>          [IaRECmp=    4. 00: IaRECper=    4. 00]
07892>          [SMN= 31. 15:  SMX=207. 66:  SK= . 010]
07893> #*************************************************************************
07894> #     Catchment JOCKVA
07895> #     - To Jockvale SWM Facility
07896> #     - Residential development & golf course
07897> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
07898> #                JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
07899> #*************************************************************************
07900> R0010: C00394-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07901>       CONTINUOUS STANDHYD      1. 0 01: JOCKVA        225. 13    17. 670 No_date    28: 08    41. 86  . 647    .000
07902>          [XIMP= .50: TIMP= .50]
07903>          [LOSS= 2 : CN= 74. 0]
07904>          [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
07905>          [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=     .0]
07906>          [IaRECmp=    4. 00: IaRECper=    4. 00]
07907>          [SMN= 36. 67:  SMX=244. 49:  SK= . 010]
07908> R0010: C00395-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07909>       ADD HYD                  1. 0 02: EX-LAND-MN       32. 50     2. 275 No_date    27: 55    41. 99  n/a      .000
07910>                          +     1. 0 02: JOCKVA        225. 13    17. 670 No_date    28: 08    41. 86  n/a      .000
07911>                          +     1. 0 02: B2-MI            .00          .000 No_date     0: 00      .00  n/a      .000
07912>                          +     1. 0 02: B3-MI            .00          .000 No_date     0: 00      .00  n/a      .000
07913>                    SUM=        1. 0 01: JOCKVA-TO     257. 63    19. 945 No_date    28: 08    41. 88  n/a      .000
07914> R0010: C00396-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07915>       SAVE HYD                 1. 0 01: JOCKVA-TO     257. 63    19. 945 No_date    28: 08    41. 88  n/a      .000
07916>          fname : JOCKVA-TO. 0010
07917>          remark: Total Flows at KB first pond
07918> #*************************************************************************
07919> #     Jockvale SWM Facility
07920> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
07921> #*************************************************************************
07922> R0010: C00397-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07923>       ROUTE RESERVOIR ->       1. 0 02: JOCKVA-TO     257. 63    19. 945 No_date    28: 08    41. 88  n/a      .000
07924>                    out <=      1. 0 01: JOCK_P        257. 63     6. 542 No_date    28: 42    41. 88  n/a      .000
07925>              overflow <=       1. 0 03: JO-OVF           .00          .000 No_date     0: 00      .00  n/a      .000
07926>       [MxStOlKed=.4673E+01  m3,  TotOvfVol=.0000E+00   m3,  N-Ovf=     0,  TotDurOvf=     0. hrs]
07927> R0010: C00398-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07928>       ADD HYD                  1. 0 02: N_DE         55194. 85    85. 515 No_date    37: 21    23. 16  n/a      .000
07929>                          +     1. 0 02: DESIRE           23. 78     1. 694 No_date    28: 03    32. 93  n/a      .000
07930>                          +     1. 0 02: JO-OVF           .00          .000 No_date     0: 00      .00  n/a      .000
07931>                          +     1. 0 02: JOCK_P        257. 63     6. 542 No_date    28: 42    41. 88  n/a      .000
07932>                    SUM=        1. 0 01: SN_DE        55476. 26    86. 165 No_date    37: 21    23. 26  n/a      .000
07933> R0010: C00399-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07934>       SAVE HYD                 1. 0 01: SN_DE        55476. 26    86. 165 No_date    37: 21    23. 26  n/a      .000
07935>          fname : SN_DE. 0010
07936>          remark: Total Flows at Heart's Desire
07937> #
07938> # Hydrograph from Heart's Desire routed to Rideau River
07939> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
07940> #
07941> R0010: C00400-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07942>       ROUTE CHANNEL    ->       1. 0 02: SN_DE        55476. 26    86. 165 No_date    37: 21    23. 26  n/a      .000
07943>          [RDT= 1. 00] out <-      1. 0 01: NI           55476. 26    86. 183 No_date    37: 18    23. 26  n/a      .000
07944>          [L/S/n=  563. /  . 967/ . 045]
07945>          [Vmax= 1. 785: Dmax= 1. 035]
07946> #*************************************************************************
07947> #     Catchment S-2
07948> #     - To Jock River (north and south)
07949> #     - Undeveloped floodplain and river
07950> #*************************************************************************
07951> R0010: C00401-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07952>       CONTINUOUS NASHYD        1. 0 01: S-2          102. 94     2. 957 No_date    28: 20    23. 57  . 364    .000
07953>          [CN= 72. 0:  N= 3. 00:  Tp=    . 40]
07954>          [LaREC=  4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
07955>          [InterEventTime=  12. 00]
07956> R0010: C00402-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07957>       ADD HYD                  1. 0 02: NI           55476. 26    86. 183 No_date    37: 18    23. 26  n/a      .000
07958>                          +     1. 0 02: S-2          102. 94     2. 957 No_date    28: 20    23. 57  n/a      .000
07959>                    SUM=        1. 0 01: SN_NI        55579. 20    86. 348 No_date    37: 18    23. 26  n/a      .000
07960> R0010: C00403-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
07961>       SAVE HYD                 1. 0 01: SN_NI        55579. 20    86. 348 No_date    37: 18    23. 26  n/a      .000
07962>          fname : SN_NI. 0010
07963>          remark: Total Flows at Rideau River
07964> ##########################################################################
07965>    ** END OF RUN :     24
07966>
07967> **************************************************************************************************
07968>
07969>
07970>
07971>
07972>
07973>  RUN#: COMMAND#
07974> R0025: C00001-------------------------------------------------------------------------------------
07975>       START
07976>          [TZERO =     .00 hrs on        0]
07977>          [METOUT=    2    (1=imperial, 2=metric output)]
07978>          [NSTORM=    1 ]
07979>          [NRUN   = 0025 ]
07980> #*************************************************************************
07981> #  SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / / INPUT DATA FILE
07982> #*************************************************************************
07983> #  Project Name: [Jock River]          Project Number: [1474-16]
07984> #  Date       : 04-03-2021
07985> #  Modeller   : [MM]
07986> #  Company    : JFSAi nc.
07987> #  License #  : 2549237
07988> #*************************************************************************
07989> # CALIBRATION OF SUMMER MODEL PARAMETERS
07990> # USING CONTINUOUS SIMULATIONS
07991> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
07992> # Use data collected from May 1st to July 14, 2003
07993> # 2020-11-30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0.1 instead of 0.0001)
07994> # 2020-12-01 correct pond curve values
07995> # 2020-12-01 change W_CLAR_BRAZ XIMP to 0.55, SLPI=[0.5]{%} (impervious slope), and LGI up to 700m
07996> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"], NHYDin=["SN_TO"]) from 0.033 % (as per S
07997> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 % (as per St
07998> # -------------------
07999> R0025: C00002-------------------------------------------------------------------------------------
08000>       READ STORM
08001>          Filename = storm 001
08002>          Comment  = Pluie SCS de 24 hres 1:25 ans pour Ottawa CDA
08003>          [SDT=10. 00: SDUR=  24. 00: PTOT=  74. 39]
08004> R0025: C00003-------------------------------------------------------------------------------------
08005>       MODIFY STORM
08006>          [REACT=   1. 00: TSHIFT= 960. 00 min]
08007>          [SDT=10. 00: SDUR=  40. 00: PTOT=  74. 39]
08008> R0025: C00004-------------------------------------------------------------------------------------
08009>       DEFAULT VALUES
08010>          Filename = T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated3\CitiGate. DEF
08011>          ICASEdv  = 1 (read and print data)
08012>          FileTitle= File comment:  [Based onvarious calibration exercises in Onta
08013>                     THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
08014>          Horton's infiltration equation parameters:
08015>          [Fo= 76. 20 mm/hr] [Fc=13. 20 mm/hr] [DCAY=  4. 14 /hr] [F=   . 00 mm]
08016>          Parameters for PERVIOUS surfaces in STANDHYD:
08017>          [IAper=    4. 67 mm] [LGP=50. 00 m] [MNP=. 250]
08018>          Parameters for IMPERVIOUS surfaces in STANDHYD:
08019>          [IAimp=    1. 57 mm] [CLI= 1. 50]    [MNI=. 013]
08020>          Parameters used in NASHYD:
08021>          [Ia=    4. 67 mm] [N= 3. 00]
08022>          Average monthly Pan Evaporation data in    (mm)
08023>       JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
08024>      .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
08025>          Average monthly Potential Evapotranspiration in    (mm)
08026>       JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
08027>      .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
08028> R0025: C00005-------------------------------------------------------------------------------------
08029>       COMPUTE API
08030>          [APIini= 50. 00:  APIkdy=  . 8500:  APIkdt= . 9989]
08031>          [APImax=106. 76:  APIavg=  65. 09:  APImin=  44. 87]
08032> #
08033> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08034> # of 1. 32
08035> R0025: C00006-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08036>       CONTINUOUS NASHYD        1. 0 01: JR_HW        3680. 00    15. 500 No_date    36: 57    25. 80  . 347    .000
08037>          [CN= 64. 0:  N= 3. 00:  Tp= 7. 13]
08038>          [LaREC=  4. 00:  SMN=  57. 05:  SMX=380. 32:  SK=  . 010]
08039>          [InterEventTime=  12. 00]
08040> #
08041> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08042> # of 1. 32
08043> R0025: C00007-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08044>       CONTINUOUS NASHYD        1. 0 01: SW_13         971. 00     5. 778 No_date    32: 34    24. 02  . 323    .000
08045>          [CN= 61. 0:  N= 3. 00:  Tp= 3. 76]
08046>          [LaREC=  4. 00:  SMN=  64. 50:  SMX=430. 01:  SK=  . 010]
08047>          [InterEventTime=  12. 00]
08048> #
08049> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08050> # of 1. 80
08051> R0025: C00008-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08052>       CONTINUOUS NASHYD        1. 0 01: JR_GWM       3074. 00     7. 521 No_date    39: 59    20. 65  . 278    .000
08053>          [CN= 55. 0:  N= 3. 00:  Tp=1. 31]
08054>          [LaREC=  4. 00:  SMN=  83. 24:  SMX=554. 96:  SK=  . 010]
08055>          [InterEventTime=  12. 00]
08056> R0025: C00009-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08057>       CONTINUOUS NASHYD        1. 0 01: JR_ASH       1781. 00    14. 166 No_date    32: 40    31. 50  . 423    .000
08058>          [CN= 72. 0:  N= 3. 00:  Tp= 3. 91]
08059>          [LaREC=  4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
08060>          [InterEventTime=  12. 00]
08061> R0025: C00010-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08062>       CONTINUOUS NASHYD        1. 0 01: SW_11         500. 00     7. 521 No_date    29: 22    27. 01  . 363    .000
08063>          [CN= 66. 0:  N= 3. 00:  Tp= 1. 24]
08064>          [LaREC=  4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
08065>          [InterEventTime=  12. 00]
08066> #
08067> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08068> # of 1. 80
08069> R0025: C00011-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08070>       CONTINUOUS NASHYD        1. 0 01: NN_CK        1917. 00    10. 351 No_date    34: 27    27. 01  . 363    .000
08071>          [CN= 66. 0:  N= 3. 00:  Tp= 5. 29]
08072>          [LaREC=  4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
08073>          [InterEventTime=  12. 00]
08074> #
08075> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08076> # of 1. 52
08077> R0025: C00012-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08078>       CONTINUOUS NASHYD        1. 0 01: SW_10        5666. 00    27. 457 No_date    37: 54    31. 50  . 423    .000
08079>          [CN= 72. 0:  N= 3. 00:  Tp= 8. 00]
08080>          [LaREC=  4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
08081>          [InterEventTime=  12. 00]
08082> #
08083> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08084> # of 1. 75
08085> R0025: C00013-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08086>       CONTINUOUS NASHYD        1. 0 01: KG_CK        8376. 00    26. 276 No_date    39: 59    27. 01  . 363    .000
08087>          [CN= 66. 0:  N= 3. 00:  Tp=11. 66]
08088>          [LaREC=  4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
08089>          [InterEventTime=  12. 00]
08090> #
08091> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08092> # of 1. 68
08093> R0025: C00014-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08094>       CONTINUOUS NASHYD        1. 0 01: SW_9         1132. 00    11. 752 No_date    30: 54    30. 18  . 406    .000
08095>          [CN= 70. 0:  N= 3. 00:  Tp= 2. 51]
08096>          [LaREC=  4. 00:  SMN=  43. 07:  SMX=287. 10:  SK=  . 010]
08097>          [InterEventTime=  12. 00]
08098> #
08099> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08100> # of 1. 82
08101> R0025: C00015-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08102>       CONTINUOUS NASHYD        1. 0 01: NC_CK        4464. 00    13. 075 No_date    39: 59    24. 61  . 331    .000
08103>          [CN= 62. 0:  N= 3. 00:  Tp=11. 32]
08104>          [LaREC=  4. 00:  SMN=  61. 90:  SMX=412. 66:  SK=  . 010]
08105>          [InterEventTime=  12. 00]
08106> #
08107> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08108> # of 1. 80
08109> R0025: C00016-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08110>       CONTINUOUS NASHYD        1. 0 01: SW_8         131. 00     2. 266 No_date    28: 57    25. 20  . 339    .000
08111>          [CN= 63. 0:  N= 3. 00:  Tp=   . 90]
08112>          [LaREC=  4. 00:  SMN=  59. 42:  SMX=396. 11:  SK=  . 010]
08113>          [InterEventTime=  12. 00]
08114> #
08115> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08116> # of 1. 65
08117> R0025: C00017-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08118>       CONTINUOUS NASHYD        1. 0 01: HB_DR        3854. 00    15. 333 No_date    38: 34    27. 01  . 363    .000
08119>          [CN= 66. 0:  N= 3. 00:  Tp= 8. 42]
08120>          [LaREC=  4. 00:  SMN=  52. 62:  SMX=350. 79:  SK=  . 010]
08121>          [InterEventTime=  12. 00]
08122> #
08123> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08124> # of 1. 82
08125> R0025: C00018-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08126>       CONTINUOUS NASHYD        1. 0 01: SW_7         3197. 00    11. 663 No_date    36: 24    21. 75  . 292    .000
08127>          [CN= 57. 0:  N= 3. 00:  Tp= 6. 65]
08128>          [LaREC=  4. 00:  SMN=  76. 32:  SMX=508. 81:  SK=  . 010]
08129>          [InterEventTime=  12. 00]
08130> #
08131> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08132> # of 1. 75
08133> R0025: C00019-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08134>       CONTINUOUS NASHYD        1. 0 01: SW_6         165. 00     1. 076 No_date    33: 03    27. 63  . 371    .000
08135>          [CN= 67. 0:  N= 3. 00:  Tp= 4. 18]
08136>          [LaREC=  4. 00:  SMN=  50. 55:  SMX=336. 97:  SK=  . 010]
08137>          [InterEventTime=  12. 00]
08138> #
08139> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08140> # of 1. 67
08141> R0025: C00020-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08142>       CONTINUOUS NASHYD        1. 0 01: NW_DR        1332. 00     7. 882 No_date    35: 14    31. 50  . 423    .000
08143>          [CN= 72. 0:  N= 3. 00:  Tp= 5. 95]
08144>          [LaREC=  4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=  . 010]
08145>          [InterEventTime=  12. 00]
08146> R0025: C00021-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08147>       CONTINUOUS NASHYD        1. 0 01: SW_5         224. 00     6. 882 No_date    28: 45    35. 66  . 479    .000
08148>          [CN= 77. 0:  N= 3. 00:  Tp=   . 75]
08149>          [LaREC=  4. 00:  SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
08150>          [InterEventTime=  12. 00]
08151> #
08152> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08153> # of 1. 20
08154> R0025: C00022-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08155>       CONTINUOUS NASHYD        1. 0 01: FL_CK        4945. 00    37. 664 No_date    33: 18    32. 85  . 442    .000
08156>          [CN= 74. 0:  N= 3. 00:  Tp= 4. 45]
08157>          [LaREC=  4. 00:  SMN=  36. 67:  SMX=244. 49:  SK=  . 010]
08158>          [InterEventTime=  12. 00]
08159> R0025: C00023-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08160>       CONTINUOUS NASHYD        1. 0 01: SW_5A          20. 00      . 798 No_date    28: 35    39. 36  . 529    .000
08161>          [CN= 81. 0:  N= 3. 00:  Tp=   . 62]
08162>          [LaREC=  4. 00:  SMN=  25. 21:  SMX=168. 09:  SK=  . 010]
08163>          [InterEventTime=  12. 00]
08164> #
08165> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08166> # of 1. 61
08167> R0025: C00024-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08168>       CONTINUOUS NASHYD        1. 0 01: SW_5AI       1412. 00     7. 480 No_date    37: 50    34. 24  . 460    .000
08169>          [CN= 75. 0:  N= 3. 00:  Tp= 8. 00]
08170>          [LaREC=  4. 00:  SMN=  33. 81:  SMX=225. 43:  SK=  . 010]
08171>          [InterEventTime=  12. 00]
08172> R0025: C00025-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08173>       CONTINUOUS NASHYD        1. 0 01: SW_4         585. 00    10. 942 No_date    29: 56    39. 36  . 529    .000
08174>          [CN= 81. 0:  N= 3. 00:  Tp= 1. 75]
08175>          [LaREC=  4. 00:  SMN=  25. 21:  SMX=168. 09:  SK=  . 010]
08176>          [InterEventTime=  12. 00]
08177> R0025: C00026-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08178>       CONTINUOUS NASHYD        1. 0 01: LM_CK        1021. 00    14. 476 No_date    30: 46    38. 60  . 519    .000
08179>          [CN= 80. 0:  N= 3. 00:  Tp= 2. 46]
08180>          [LaREC=  4. 00:  SMN=  26. 32:  SMX=175. 50:  SK=  . 010]
08181>          [InterEventTime=  12. 00]
08182> R0025: C00027-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08183>       CONTINUOUS NASHYD        1. 0 01: SW_2         177. 00     5. 438 No_date    28: 45    35. 66  . 479    .000
08184>          [CN= 77. 0:  N= 3. 00:  Tp=   . 75]
08185>          [LaREC=  4. 00:  SMN=  31. 15:  SMX=207. 66:  SK=  . 010]
08186>          [InterEventTime=  12. 00]
08187> R0025: C00028-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08188>       CONTINUOUS NASHYD        1. 0 01: SM_DR        1122. 00    13. 229 No_date    31: 45    39. 36  . 529    .000
08189>          [CN= 81. 0:  N= 3. 00:  Tp= 3. 25]
08190>          [LaREC=  4. 00:  SMN=  25. 21:  SMX=168. 09:  SK=  . 010]
08191>          [InterEventTime=  12. 00]
08192> R0025: C00029-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08193>       CONTINUOUS NASHYD        1. 0 01: MD_DR        2737. 00    29. 508 No_date    31: 30    34. 94  . 470    .000
08194>          [CN= 76. 0:  N= 3. 00:  Tp= 3. 03]
08195>          [LaREC=  4. 00:  SMN=  32. 46:  SMX=216. 39:  SK=  . 010]
08196>          [InterEventTime=  12. 00]
08197> #
08198> # Routing hydrographs
08199> #
08200> # Starting with the addition of Jock River Headwater and Subwatershed 13
08201> #
08202> R0025: C00030-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08203>       ADD HYD                  1. 0 02: JR_HW        3680. 00    15. 500 No_date    36: 56    25. 80  n/a      .000
08204>                          +     1. 0 02: SW_13         971. 00     5. 778 No_date    32: 34    24. 02  n/a      .000
08205>                    SUM=        1. 0 01: S_N13        4651. 00    19. 777 No_date    35: 26    25. 42  n/a      .000
08206> #
08207> # Sum of hydrographs from Node 13 routed to Node 13A
08208> # (Approximated cross-section - see cross-section 258)
08209> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
08210> #
08211> R0025: C00031-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08212>       ROUTE CHANNEL    ->       1. 0 02: S_N13        4651. 00    19. 777 No_date    35: 26    25. 42  n/a      .000
08213>          [RDT= 1. 00] out <-      1. 0 01: N13A         4651. 00    15. 935 No_date    39: 17    25. 42  n/a      .000
08214>          [L/S/n= 9074. /  . 022/ . 040]
08215>          [Vmax=   . 548: Dmax= 3. 659]
08216> #
08217> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
08218> #
08219> R0025: C00032-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08220>       ADD HYD                  1. 0 02: N13A         4651. 00    15. 935 No_date    39: 17    25. 42  n/a      .000
08221>                          +     1. 0 02: JR_GWM       3074. 00     7. 521 No_date    39: 59    20. 65  n/a      .000
08222>                    SUM=        1. 0 01: SN13A        7725. 00    23. 402 No_date    39: 59    23. 52  n/a      .000
08223> #
08224> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
08225> #
08226> R0025: C00033-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
08227>       ROUTE RESERVOIR ->       1. 0 02: SN13A        7725. 00    23. 402 No_date    39: 59    23. 52  n/a      .000
08228>                    out <=      1. 0 01: RES_GM       7725. 00     3. 678 No_date    60: 27    23. 52  n/a      .000
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08229>       [MkSt oUked=. 1192E+03   m3]
08230> #
08231> R0025: CO0034-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08232>       SAVE HYD                    1. 0 01: RES_GM        7725. 00      3. 678 No_date    60: 27   23. 52   n/ a      . 000
08233>          f name : H_RESGM
08234>          remark: Out flow from Res GM
08235> # Out put of Reservoir Goodwood Marsh routed from Node 13A to Node 12
08236> # (Approximated cross-section - see cross-section 258)
08237> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
08238> R0025: CO0035-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08239>       ROUTE CHANNEL    -->        1. 0 02: RES_GM        7725. 00      3. 678 No_date    60: 27   23. 52   n/ a      . 000
08240>          [ RDT= 1. 00]  out <-     1. 0 01: N12           7725. 00      3. 675 No_date    63: 05   23. 52   n/ a      . 000
08241>          [ L/ S/ n= 5926. /  . 076/ . 040]
08242>          [ Vmx= . 552: Dmx= 1. 524]
08243> #
08244> # Addition of Subwatershed Jock River at Ashton to Node 12
08245> #
08246> R0025: CO0036-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08247>       ADD HYD                     1. 0 02: N12           7725. 00      3. 675 No_date    63: 05   23. 52   n/ a      . 000
08248>                              +    1. 0 02: JR_ASH        1781. 00     14. 166 No_date    32: 40   31. 50   n/ a      . 000
08249>                              SUM= 1. 0 01: S_N12         9506. 00     16. 182 No_date    32: 43   25. 02   n/ a      . 000
08250> R0025: CO0037-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08251>       SAVE HYD                    1. 0 01: S_N12         9506. 00     16. 182 No_date    32: 43   25. 02   n/ a      . 000
08252>          f name : H_SN12
08253>          remark: flow at S_N12 near Ashton
08254> #
08255> # Sum of hydrographs from Node 12 routed to Node 11
08256> # (Approximated cross-section - see cross-section 258)
08257> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
08258> #
08259> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
08260> #
08261> R0025: CO0038-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08262>       ROUTE CHANNEL    -->        1. 0 02: S_N12         9506. 00     16. 182 No_date    32: 43   25. 02   n/ a      . 000
08263>          [ RDT= 1. 00]  out <-     1. 0 01: Dam1          9506. 00     16. 007 No_date    33: 02   25. 02   n/ a      . 000
08264>          [ L/ S/ n=  972. /  . 054/ . 040]
08265>          [ Vmx= . 721: Dmx= 2. 847]
08266> #
08267> # Addition of Subwatershed 11 and No Name Creek to Node 11
08268> #
08269> R0025: CO0039-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08270>       ADD HYD                     1. 0 02: Dam1          9506. 00     16. 007 No_date    33: 02   25. 02   n/ a      . 000
08271>                              +    1. 0 02: SW_11          500. 00      7. 521 No_date    29: 22   27. 01   n/ a      . 000
08272>                              +    1. 0 02: NN_CK         1917. 00     10. 351 No_date    34: 27   27. 01   n/ a      . 000
08273>                              SUM= 1. 0 01: S_N11        11923. 00     27. 908 No_date    33: 04   25. 42   n/ a      . 000
08274> #
08275> # Sum of hydrographs from Node 11 routed to Node 10
08276> # Section 1
08277> #
08278> R0025: CO0040-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08279>       ROUTE CHANNEL    -->        1. 0 02: S_N11         11923. 00     27. 908 No_date    33: 04   25. 42   n/ a      . 000
08280>          [ RDT= 1. 00]  out <-     1. 0 01: N10           11923. 00     18. 039 No_date    40: 01   25. 42   n/ a      . 000
08281>          [ L/ S/ n=14028. /  . 157/ . 040]
08282>          [ Vmx= . 464: Dmx= 1. 329]
08283> #
08284> # Addition of Subwatershed 10 to Node 10
08285> #
08286> R0025: CO0041-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08287>       ADD HYD                     1. 0 02: N10           11923. 00     18. 039 No_date    40: 01   25. 42   n/ a      . 000
08288>                              +    1. 0 02: SW_10          5666. 00     27. 457 No_date    37: 54   31. 50   n/ a      . 000
08289>                              SUM= 1. 0 01: S_N10         17589. 00     45. 026 No_date    38: 35   27. 38   n/ a      . 000
08290> R0025: CO0042-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08291>       SAVE HYD                    1. 0 01: S_N10         17589. 00     45. 026 No_date    38: 35   27. 38   n/ a      . 000
08292>          f name : H_SN10
08293>          remark: flow at S_N10:  N10 + SW_10
08294> # Addition of Kings Creek to S_N10
08295> #
08296> R0025: CO0043-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08297>       ADD HYD                     1. 0 02: S_N10         17589. 00     45. 026 No_date    38: 35   27. 38   n/ a      . 000
08298>                              +    1. 0 02: KG_CK          8376. 00     26. 276 No_date    39: 59   27. 01   n/ a      . 000
08299>                              SUM= 1. 0 01: S_N10A        25965. 00     70. 812 No_date    39: 59   27. 26   n/ a      . 000
08300> #
08301> # Sum of hydrographs from Node 10 routed to Node 9
08302> # Section 2
08303> #
08304> R0025: CO0044-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08305>       ROUTE CHANNEL    -->        1. 0 02: S_N10A        25965. 00     70. 812 No_date    39: 59   27. 26   n/ a      . 000
08306>          [ RDT= 1. 00]  out <-     1. 0 01: N9            25965. 00     69. 032 No_date    39: 59   27. 26   n/ a      . 000
08307>          [ L/ S/ n= 3982. /  . 075/ . 040]
08308>          [ Vmx=  . 718: Dmx= 1. 889]
08309> #
08310> # Addition of Subwatershed 9 and Nichols Creek to Node 9
08311> #
08312> R0025: CO0045-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08313>       ADD HYD                     1. 0 02: N9            25965. 00     69. 032 No_date    39: 59   27. 26   n/ a      . 000
08314>                              +    1. 0 02: SW_9           1132. 00     11. 752 No_date    30: 54   30. 18   n/ a      . 000
08315>                              +    1. 0 02: NC_CK          4464. 00     13. 075 No_date    39: 59   24. 61   n/ a      . 000
08316>                              SUM= 1. 0 01: S_N9          31561. 00     84. 684 No_date    39: 59   26. 99   n/ a      . 000
08317> #
08318> # Sum of hydrographs from Node 9 routed to Node 8
08319> # Section 3
08320> #
08321> R0025: CO0046-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08322>       ROUTE CHANNEL    -->        1. 0 02: S_N9          31561. 00     84. 684 No_date    39: 59   26. 99   n/ a      . 000
08323>          [ RDT= 1. 00]  out <-     1. 0 01: N8            31561. 00     79. 245 No_date    39: 59   26. 99   n/ a      . 000
08324>          [ L/ S/ n= 2269. /  . 088/ . 045]
08325>          [ Vmx=  . 363: Dmx= 1. 743]
08326> #
08327> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
08328> #
08329> R0025: CO0047-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08330>       ADD HYD                     1. 0 02: N8            31561. 00     79. 245 No_date    39: 59   26. 99   n/ a      . 000
08331>                              +    1. 0 02: SW_8            131. 00      2. 266 No_date    28: 57   25. 20   n/ a      . 000
08332>                              +    1. 0 02: HB_DR          3854. 00     15. 333 No_date    38: 34   27. 01   n/ a      . 000
08333>                              SUM= 1. 0 01: S_N8          35546. 00     94. 597 No_date    39: 59   26. 99   n/ a      . 000
08334> #
08335> # Sum of hydrographs from Node 8 routed to Node 7
08336> # Section 4
08337> #
08338> R0025: CO0048-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08339>       ROUTE CHANNEL    -->        1. 0 02: S_N8          35546. 00     94. 597 No_date    39: 59   26. 99   n/ a      . 000
08340>          [ RDT= 1. 00]  out <-     1. 0 01: N7            35546. 00     80. 337 No_date    45: 08   26. 98   n/ a      . 000
08341>          [ L/ S/ n= 3750. /  . 053/ . 070]
08342>          [ Vmx=  . 226: Dmx= 2. 161]
08343> #
08344> # Addition of Subwatershed 7 to Node 7
08345> #
08346> R0025: CO0049-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08347>       ADD HYD                     1. 0 02: N7            35546. 00     80. 337 No_date    45: 08   26. 98   n/ a      . 000
08348>                              +    1. 0 02: SW_7           3197. 00     11. 663 No_date    36: 24   21. 75   n/ a      . 000
08349>                              SUM= 1. 0 01: S_N7          38743. 00     86. 331 No_date    44: 08   26. 55   n/ a      . 000
08350> R0025: CO0050-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08351>       SAVE HYD                    1. 0 01: S_N7          38743. 00     86. 331 No_date    44: 08   26. 55   n/ a      . 000
08352>          f name : H_SN7
08353>          remark: flow at S_N7:  N7 + SW_7
08354> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
08355> # Storage area and volumes were estimated from available topo maps.
08356> # Release rate from fen was assumed to be controlled by the downstream
08357> # river cross-section for summer conditions.  It is was assumed that for up to
08358> # 0. 75 m of water, the main channel of the river provided the storage.  Above
08359> # this depth, the wetland starts to signigicantly store water.
08360> #
08361> R0025: CO0051-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08362>       ROUTE RESERVOIR  -->        1. 0 02: S_N7          38743. 00     86. 331 No_date    44: 08   26. 55   n/ a      . 000
08363>                              out <=    1. 0 01: RES_RF      38743. 00     42. 032 No_date    60: 05   26. 55   n/ a      . 000
08364>          [ MkSt oUked=. 3671E+03   m3]
08365> R0025: CO0052-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08366>       SAVE HYD                    1. 0 01: RES_RF        38743. 00     42. 032 No_date    60: 05   26. 55   n/ a      . 000
08367>          f name : H_Res RF
08368>          remark: out flow of Richmond Fen
08369> #
08370> # Sum of hydrographs from Node 7 routed to Node 6
08371> # Section 5
08372> #
08373> R0025: CO0053-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08374>       ROUTE CHANNEL    -->        1. 0 02: RES_RF        38743. 00     42. 032 No_date    60: 05   26. 55   n/ a      . 000
08375>          [ RDT= 1. 00]  out <-     1. 0 01: N6            38743. 00     41. 826 No_date    61: 26   26. 55   n/ a      . 000
08376>          [ L/ S/ n= 3056. /  . 082/ . 025]
08377>          [ Vmx=  . 514: Dmx= 1. 120]
08378> #
08379> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
08380> #
08381> R0025: CO0054-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08382>       ADD HYD                     1. 0 02: N6            38743. 00     41. 826 No_date    61: 26   26. 55   n/ a      . 000
08383>                              +    1. 0 02: SW_6           1076. 00     41. 076 No_date    33: 03   27. 63   n/ a      . 000
08384>                              +    1. 0 02: VG_DR          1332. 00      7. 882 No_date    35: 14   31. 50   n/ a      . 000
08385>                              SUM= 1. 0 01: S_N6          40240. 01     41. 832 No_date    61: 20   26. 72   n/ a      . 000
08386> #
08387> # Sum of hydrographs from Node 6 routed to Node 5
08388> # Section 6
08389> #
08390> R0025: CO0055-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08391>       ROUTE CHANNEL    -->        1. 0 02: S_N6          40240. 01     41. 832 No_date    61: 20   26. 72   n/ a      . 000
08392>          [ RDT= 1. 00]  out <-     1. 0 01: N5            40240. 01     41. 717 No_date    62: 14   26. 72   n/ a      . 000
08393>          [ L/ S/ n= 1852. /  . 054/ . 035]
08394>          [ Vmx=  . 444: Dmx= 1. 222]
08395> #
08396> # Addition of Subwatershed 5 and Flowing Creek to Node 5
08397> #
08398> R0025: CO0056-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08399>       ADD HYD                     1. 0 02: N5            40240. 01     41. 717 No_date    62: 14   26. 72   n/ a      . 000
08400>                              +    1. 0 02: SW_5            224. 00      6. 882 No_date    28: 45   25. 66   n/ a      . 000
08401>                              +    1. 0 02: FL_CK          4945. 00     37. 664 No_date    33: 18   32. 85   n/ a      . 000
08402>                              SUM= 1. 0 01: S_N5          45409. 01     62. 634 No_date    34: 27   27. 43   n/ a      . 000
08403> #
08404> # Sum of hydrographs from Node 5 routed to Node 5A
08405> # Section 7
08406> #
08407> R0025: CO0057-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08408>       ROUTE CHANNEL    -->        1. 0 02: S_N5          45409. 01     62. 634 No_date    34: 27   27. 43   n/ a      . 000
08409>          [ RDT= 1. 00]  out <-     1. 0 01: N5A           45409. 01     62. 487 No_date    34: 43   27. 43   n/ a      . 000
08410>          [ L/ S/ n=  556. /  . 090/ . 040]
08411>          [ Vmx=  . 511: Dmx= 1. 222]
08412> #
08413> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
08414> #
08415> R0025: CO0058-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08416>       ADD HYD                     1. 0 02: N5A           45409. 01     62. 487 No_date    34: 43   27. 43   n/ a      . 000
08417>                              +    1. 0 02: SW_5A1           20. 00      . 798 No_date    28: 35   39. 36   n/ a      . 000
08418>                              +    1. 0 02: SW_5A2         1412. 00      7. 480 No_date    37: 50   34. 24   n/ a      . 000
08419>                              SUM= 1. 0 01: S_N5A         46841. 01     69. 334 No_date    35: 01   27. 64   n/ a      . 000
08420> #
08421> # Sum of hydrographs from Node 5A routed to Node 4
08422> # Section 8
08423> #
08424> R0025: CO0059-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08425>       ROUTE CHANNEL    -->        1. 0 02: S_N5A         46841. 01     69. 334 No_date    35: 01   27. 64   n/ a      . 000
08426>          [ RDT= 1. 00]  out <-     1. 0 01: N4            46841. 01     66. 496 No_date    36: 27   27. 64   n/ a      . 000
08427>          [ L/ S/ n= 4630. /  . 043/ . 035]
08428>          [ Vmx=  . 840: Dmx= 3. 530]
08429> #
08430> # Addition of Subwatershed 4 and Leamy Creek to Node 4
08431> #
08432> R0025: CO0060-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08433>       ADD HYD                     1. 0 02: N4            46841. 01     66. 496 No_date    36: 27   27. 64   n/ a      . 000
08434>                              +    1. 0 02: SW_4            585. 00     10. 942 No_date    29: 56   39. 36   n/ a      . 000
08435>                              +    1. 0 02: LM_CK          1021. 00     14. 476 No_date    30: 46   38. 60   n/ a      . 000
08436>                              SUM= 1. 0 01: S_N4          48447. 00     73. 819 No_date    35: 41   28. 02   n/ a      . 000
08437> R0025: CO0061-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08438>       SAVE HYD                    1. 0 01: S_N4          48447. 00     73. 819 No_date    35: 41   28. 02   n/ a      . 000
08439>          f name : S_N4. 0025
08440>          remark: flow at S_N4
08441> #
08442> # Sum of hydrographs from Node 4 routed to Node 2
08443> # Section 9
08444> #
08445> R0025: CO0062-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08446>       ROUTE CHANNEL    -->        1. 0 02: S_N4          48447. 00     73. 819 No_date    35: 41   28. 02   n/ a      . 000
08447>          [ RDT= 1. 00]  out <-     1. 0 01: N2            48447. 00     73. 485 No_date    35: 42   28. 02   n/ a      . 000
08448>          [ L/ S/ n= 1667. /  . 060/ . 040]
08449>          [ Vmx=  . 874: Dmx= 3. 570]
08450> #
08451> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
08452> #
08453> R0025: CO0063-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08454>       ADD HYD                     1. 0 02: N2            48447. 00     73. 485 No_date    35: 42   28. 02   n/ a      . 000
08455>                              +    1. 0 02: SW_2            177. 00      5. 438 No_date    28: 45   35. 66   n/ a      . 000
08456>                              +    1. 0 02: SM_DR          1122. 00     13. 229 No_date    31: 45   39. 36   n/ a      . 000
08457>                              +    1. 0 02: MO_DR          2737. 00     29. 508 No_date    31: 30   34. 94   n/ a      . 000
08458>                              SUM= 1. 0 01: S_N2          52483. 00    106. 109 No_date    33: 07   28. 64   n/ a      . 000
08459> R0025: CO0064-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08460>       SAVE HYD                    1. 0 01: S_N2          52483. 00    106. 109 No_date    33: 07   28. 64   n/ a      . 000
08461>          f name : H_SN2
08462>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
08463> #
08464> # Sum of hydrographs from Node 2 routed to Node 1
08465> # Section 10
08466> #
08467> #*******************************************************************************
08468> #
08469> # Hydrograph from Node 2 routed to Node 416
08470> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
08471> #
08472> R0025: CO0065-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08473>       ROUTE CHANNEL    -->        1. 0 02: S_N2          52483. 00    106. 109 No_date    33: 07   28. 64   n/ a      . 000
08474>          [ RDT= 1. 00]  out <-     1. 0 01: N_416         52483. 00    103. 234 No_date    34: 03   28. 64   n/ a      . 000
08475>          [ L/ S/ n= 2327. /  . 050/ . 055]
08476>          [ Vmx=  . 754: Dmx= 3. 305]
08477> #*******************************************************************************
08478> #     Catchment SW1a
08479> #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
08480> #     - Undeveloped agricultural land
08481> #*******************************************************************************
08482> R0025: CO0066-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08483>       CONTINUOUS NASHYD           1. 0 01: SW_1a         536. 42      5. 154 No_date    31: 16   30. 13   . 405    . 000
08484>          [ CN= 72. 0:  N= 3. 00:  Tp= 2. 79]
08485>          [ IaREC= 4. 00:  SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
08486>          [ InterEventTime= 12. 00]
08487> R0025: CO0067-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08488>       CONTINUOUS STANDHYD         1. 0 01: S- 1- Okeefe   44. 93      6. 507 No_date    28: 03   57. 38   . 771    . 000
08489>          [ XI MP= . 65: TI MP= . 65]
08490>          [ LOSS= 2 : CN= 75. 0]
08491>          [ Pervious      area: IAper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
08492>          [ Impervious    area: IAimp= 1. 57: SLPI= . 75: LGI= 547. : MNI= . 013: SCI=    . 0]
08493>          [ IaRECImp=   4. 00:  IaRECPer=   4. 00]
08494>          [ SM N= 33. 81:  SMX= 225. 43:  SK= . 010]
08495> R0025: CO0068-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08496>       ADD HYD                     1. 0 02: N_416         52483. 00    103. 234 No_date    34: 03   28. 64   n/ a      . 000
08497>                              +    1. 0 02: SW_1a           536. 42      5. 154 No_date    31: 16   30. 13   n/ a      . 000
08498>                              +    1. 0 02: S- 1- Okeefe     44. 93      6. 507 No_date    28: 03   57. 38   n/ a      . 000
08499>                              SUM= 1. 0 01: SN_416        53064. 36    107. 198 No_date    33: 26   28. 68   n/ a      . 000
08500> R0025: CO0069-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08501>       SAVE HYD                    1. 0 01: SN_416        53064. 36    107. 198 No_date    33: 26   28. 68   n/ a      . 000
08502>          f name : SN_416. 0025
08503>          remark: Total Flows at Highway 416
08504> #
08505> # Hydrograph from Node 416 routed to Node at Okeefe drain
08506> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
08507> #
08508> R0025: CO0070-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08509>       ROUTE CHANNEL    -->        1. 0 02: SN_416        53064. 36    107. 198 No_date    33: 26   28. 68   n/ a      . 000
08510>          [ RDT= 1. 00]  out <-     1. 0 01: N_OK          53064. 36    107. 111 No_date    33: 27   28. 68   n/ a      . 000
08511>          [ L/ S/ n=  497. /  . 302/ . 055]
08512>          [ Vmx= 1. 568: Dmx= 2. 810]
08513> #*******************************************************************************
08514> #     Catchment OKEEFE
08515> #     - To O'Keefe drain (north of the Jock)
08516> #     - Developed with assumed 43% imp.
08517> #     - 2020-12-01 add Okeefe model (Area 513. 02 HA) instead of current Okeefe (Area 513. 02 HA)
08518> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
08519> #*******************************************************************************
08520> R0025: CO0071-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08521>       CONTINUOUS NASHYD           1. 0 01: O- 1           63. 72       . 937 No_date    28: 58   22. 21   . 299    . 000
08522>          [ CN= 61. 0:  N= 3. 00:  Tp=  . 90]
08523>          [ IaREC= 4. 00:  SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
08524>          [ InterEventTime= 12. 00]
08525> R0025: CO0072-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08526>       ROUTE CHANNEL    -->        1. 0 02: O- 1           63. 72       . 937 No_date    28: 58   22. 21   n/ a      . 000
08527>          [ RDT= 1. 00]  out <-     1. 0 01: O- 1R          63. 72       . 877 No_date    29: 15   22. 21   n/ a      . 000
08528>          [ L/ S/ n=  960. /  . 630/ . 043]
08529>          [ Vmx=  . 829: Dmx=  . 398]
08530> R0025: CO0073-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08531>       CONTINUOUS NASHYD           1. 0 01: O- 2           28. 61       . 330 No_date    29: 13   20. 55   . 276    . 000
08532>          [ CN= 57. 0:  N= 3. 00:  Tp= 1. 10]
08533>          [ IaREC= 4. 00:  SM N= 76. 32:  SMX= 508. 81:  SK= . 010]
08534>          [ InterEventTime= 12. 00]
08535> R0025: CO0074-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08536>       CONTINUOUS NASHYD           1. 0 01: O- 4           46. 94       . 426 No_date    29: 00   15. 62   . 210    . 000
08537>          [ CN= 49. 0:  N= 3. 00:  Tp=  . 90]
08538>          [ IaREC= 4. 00:  SM N= 104. 59:  SMX= 697. 25:  SK= . 010]
08539>          [ InterEventTime= 12. 00]
08540> R0025: CO0075-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08541>       ADD HYD                     1. 0 02: O- 1R          63. 72       . 877 No_date    29: 15   22. 21   n/ a      . 000
08542>                              +    1. 0 02: O- 2           28. 61       . 330 No_date    29: 13   20. 55   n/ a      . 000
08543>                              +    1. 0 02: O- 4           46. 94       . 426 No_date    29: 00   15. 62   n/ a      . 000
08544>                              SUM= 1. 0 01: OKF- N        139. 27      1. 623 No_date    29: 11   19. 65   n/ a      . 000
08545> R0025: CO0076-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08546>       ROUTE CHANNEL    -->        1. 0 02: OKF- N        139. 27      1. 623 No_date    29: 11   19. 65   n/ a      . 000
08547>          [ RDT= 1. 00]  out <-     1. 0 01: OKF- NR        139. 27      1. 620 No_date    29: 14   19. 65   n/ a      . 000
08548>          [ L/ S/ n=  210. /  . 810/ . 043]
08549>          [ Vmx=  . 998: Dmx=  . 685]
08550> R0025: CO0077-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08551>       CONTINUOUS NASHYD           1. 0 01: O- 6           16. 46       . 143 No_date    28: 45   13. 49   . 181    . 000
08552>          [ CN= 43. 0:  N= 3. 00:  Tp=  . 70]
08553>          [ IaREC= 4. 00:  SM N= 134. 47:  SMX= 896. 47:  SK= . 010]
08554>          [ InterEventTime= 12. 00]
08555> R0025: CO0078-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08556>       CONTINUOUS STANDHYD          1. 0 01: O- 3           39. 67      1. 013 No_date    28: 23   24. 45   . 329    . 000
08557>          [ XI MP= . 15: TI MP= . 30]
08558>          [ LOSS= 2 : CN= 50. 0]
08559>          [ Pervious      area: IAper= 4. 67: SLPP=  . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
08560>          [ Impervious    area: IAimp= 1. 57: SLPI=  . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
08561>          [ IaRECImp=   4. 00:  IaRECPer=   4. 00]
08562>          [ SM N= 99. 77:  SMX= 665. 12:  SK= . 010]
08563> R0025: CO0079-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08564>       CONTINUOUS STANDHYD          1. 0 01: O- 5           60. 63      2. 500 No_date    28: 10   28. 05   . 377    . 000
08565>          [ XI MP= . 13: TI MP= . 26]
08566>          [ LOSS= 2 : CN= 61. 0]
08567>          [ Pervious      area: IAper= 4. 67: SLPP= 1. 38: LGP=  550. : MNP= . 035: SCP=    . 0]
08568>          [ Impervious    area: IAimp= 1. 57: SLPI= 1. 38: LGI= 1450. : MNI= . 013: SCI=    . 0]
08569>          [ IaRECImp=   4. 00:  IaRECPer=   4. 00]
08570>          [ SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
08571> R0025: CO0080-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08572>       ADD HYD                     1. 0 02: OKF- NR        139. 27      1. 620 No_date    29: 14   19. 65   n/ a      . 000
08573>                              +    1. 0 02: O- 3           39. 67      1. 013 No_date    28: 23   24. 45   n/ a      . 000
08574>                              +    1. 0 02: O- 5           60. 63      2. 500 No_date    28: 10   28. 05   n/ a      . 000
08575>                              +    1. 0 02: O- 6           16. 46       . 143 No_date    28: 45   13. 49   n/ a      . 000
08576>                              SUM= 1. 0 01: PT1           256. 03      4. 071 No_date    28: 22   21. 98   n/ a      . 000
08577> R0025: CO0081-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08578>       CONTINUOUS NASHYD           1. 0 01: O- 7            5. 28       . 078 No_date    28: 37   18. 08   . 243    . 000
08579>          [ CN= 54. 0:  N= 3. 00:  Tp=  . 60]
08580>          [ IaREC= 4. 00:  SM N= 87. 01:  SMX= 580. 07:  SK= . 010]
08581>          [ InterEventTime= 12. 00]
08582> R0025: CO0082-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08583>       ADD HYD                     1. 0 02: PT1           256. 03      4. 071 No_date    28: 22   21. 98   n/ a      . 000
08584>                              +    1. 0 02: O- 7            5. 28       . 078 No_date    28: 37   18. 08   n/ a      . 000
08585>                              SUM= 1. 0 01: FF            261. 31      4. 141 No_date    28: 22   21. 91   n/ a      . 000
08586> R0025: CO0083-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08587>       ROUTE CHANNEL    -->        1. 0 02: FF            261. 31      4. 141 No_date    28: 22   21. 91   n/ a      . 000
08588>          [ RDT= 1. 00]  out <-     1. 0 01: DRAI NI        261. 31      4. 014 No_date    28: 28   21. 91   n/ a      . 000
08589>          [ L/ S/ n=  302. /1. 000/ . 043]
08590>          [ Vmx=  . 793: Dmx=  . 719]
08591> R0025: CO0084-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08592>       CONTINUOUS NASHYD           1. 0 01: DI              1. 17       . 078 No_date    28: 12   37. 38   . 502    . 000
08593>          [ CN= 84. 0:  N= 3. 00:  Tp=  . 28]
08594>          [ IaREC= 4. 00:  SM N= 21. 09:  SMX= 140. 62:  SK= . 010]
08595>          [ InterEventTime= 12. 00]
08596> R0025: CO0085-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08597>       CONTINUOUS STANDHYD          1. 0 01: AI              2. 50       . 464 No_date    28: 01   58. 43   . 785    . 000
08598>          [ XI MP= . 68: TI MP= . 85]
08599>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
08600>          [ Pervious      area: IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
08601>          [ Impervious    area: IAimp= 1. 57: SLPI=  . 50: LGI=  224. : MNI= . 013: SCI=    . 0]
08602>          [ IaRECImp=   4. 00:  IaRECPer=   4. 00]
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08603> R0025: C00086-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08604>      ROUTE RESERVOIR -->      1. 0 02: AI              2. 50       . 464 No_date   28: 01   58. 43   n/ a      . 000
08605>                       out <=      1. 0 01: AI - STR       2. 50       . 117 No_date   28: 22   58. 43   n/ a      . 000
08606>                  overf low <=      1. 0 03: AI - OVF        . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08607>        [MsSt o ls ked=. 6660E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08608> R0025: C00087-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08609>      CONTI NUOUS STANDHYD      1. 0 01: ST- 2           . 59       . 091 No_date   28: 00   45. 54   . 612      . 000
08610>        [ XI MP=. 46: TI MP=. 57]
08611>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08612>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08613>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  109. : MNI =. 013: SCI =    . 0]
08614>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08615> R0025: C00088-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08616>      ROUTE RESERVOIR -->      1. 0 02: ST- 2           . 59       . 091 No_date   28: 00   45. 54   n/ a      . 000
08617>                       out <=      1. 0 02: ST2STR          . 59       . 052 No_date   28: 07   45. 54   n/ a      . 000
08618>                  overf low <=      1. 0 03: ST2OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08619>        [MsSt o ls ked=. 2899E- 02   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08620> R0025: C00089-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08621>      CONTI NUOUS NASHYD       1. 0 01: O- 8            . 60. 55      1. 147 No_date   29: 04   28. 63   . 385      . 000
08622>        [ CN=  69. 0:  N=  3. 00:  Tp=  1. 00]
08623>        [ I aREC=  4. 00:  SMN=  44. 82:  SMX=. 298. 82:  SK=  . 010]
08624>        [ I nter Event Ti me=  12. 00]
08625> R0025: C00090-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08626>      ROUTE PI PE              1. 0 02: O- 8            . 60. 55      1. 147 No_date   29: 04   28. 63   n/ a      . 000
08627>        [ RDT=  1. 00]  out <-      1. 0 01: OI PI PE        . 60. 55      1. 141 No_date   29: 08   28. 63   n/ a      . 000
08628>        [ L/ S/ n=  335. / . 100/ . 013]
08629>        [ Vmax=  1. 178: Dmax=  . 540]
08630>        [ HGT H=  1. 20: WDTH=  1. 80]
08631> R0025: C00091-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08632>      ADD HYD                  1. 0 02: I DRAI N1       261. 31      4. 014 No_date   28: 28   21. 91   n/ a      . 000
08633>                           +      1. 0 02: DI              1. 17       . 078 No_date   28: 12   37. 38   n/ a      . 000
08634>                           +      1. 0 02: AI - STR        2. 50       . 117 No_date   28: 22   58. 43   n/ a      . 000
08635>                           +      1. 0 02: AI - OVF         . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08636>                           +      1. 0 02: ST2STR          . 59       . 052 No_date   28: 07   45. 54   n/ a      . 000
08637>                           +      1. 0 02: ST2OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08638>                           +      1. 0 02: OI PI PE        . 60. 55      1. 141 No_date   29: 08   28. 63   n/ a      . 000
08639>                      SUM=      1. 0 01: ST2- 1 N        326. 12      5. 017 No_date   28: 36   23. 53   n/ a      . 000
08640> R0025: C00092-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08641>      CONTI NUOUS STANDHYD      1. 0 01: AI              3. 51       . 635 No_date   28: 01   58. 43   . 785      . 000
08642>        [ XI MP=. 68: TI MP=. 85]
08643>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08644>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08645>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  265. : MNI =. 013: SCI =    . 0]
08646>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08647> R0025: C00093-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08648>      ROUTE RESERVOIR -->      1. 0 02: A7              3. 51       . 635 No_date   28: 01   58. 43   n/ a      . 000
08649>                       out <=      1. 0 01: A7 - STR        3. 51       . 164 No_date   28: 23   58. 43   n/ a      . 000
08650>                  overf low <=      1. 0 03: A7 - OVF         . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08651>        [MsSt o ls ked=. 9358E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08652> R0025: C00094-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08653>      CONTI NUOUS STANDHYD      1. 0 01: ST- 3           . 71       . 108 No_date   28: 00   45. 54   . 612      . 000
08654>        [ XI MP=. 46: TI MP=. 57]
08655>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08656>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08657>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  119. : MNI =. 013: SCI =    . 0]
08658>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08659> R0025: C00095-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08660>      ROUTE RESERVOIR -->      1. 0 02: ST- 3           . 71       . 108 No_date   28: 00   45. 54   n/ a      . 000
08661>                       out <=      1. 0 01: ST3STR          . 71       . 063 No_date   28: 08   45. 54   n/ a      . 000
08662>                  overf low <=      1. 0 03: ST3OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08663>        [MsSt o ls ked=. 3355E- 02   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08664> R0025: C00096-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08665>      ADD HYD                  1. 0 02: ST2- 1 N        326. 12      5. 017 No_date   28: 36   23. 53   n/ a      . 000
08666>                           +      1. 0 02: A7 - STR        3. 51       . 164 No_date   28: 23   58. 43   n/ a      . 000
08667>                           +      1. 0 02: A7 - OVF         . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08668>                           +      1. 0 02: ST3STR          . 71       . 063 No_date   28: 08   45. 54   n/ a      . 000
08669>                           +      1. 0 02: ST3OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08670>                      SUM=      1. 0 01: PT2ST3          330. 34      5. 204 No_date   28: 28   23. 95   n/ a      . 000
08671> R0025: C00097-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08672>      ROUTE CHANNEL    -->      1. 0 02: PT2ST3          330. 34      5. 204 No_date   28: 28   23. 95   n/ a      . 000
08673>        [ RDT=  1. 00]  out <-      1. 0 01: DRAI N2         330. 34      4. 806 No_date   29: 00   23. 95   n/ a      . 000
08674>        [ L/ S/ n=  592. / . 230/ . 043]
08675>        [ Vmax=  . 581: Dmax=  1. 088]
08676> R0025: C00098-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08677>      CONTI NUOUS NASHYD       1. 0 01: I 2             2. 28       . 062 No_date   29: 03   37. 38   . 502      . 000
08678>        [ CN=  84. 0:  N=  3. 00:  Tp=  . 99]
08679>        [ I aREC=  4. 00:  SMN=  21. 09:  SMX=140. 62:  SK=  . 010]
08680>        [ I nter Event Ti me=  12. 00]
08681> R0025: C00099-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08682>      CONTI NUOUS STANDHYD      1. 0 01: AI7            12. 04      1. 933 No_date   28: 03   58. 43   . 785      . 000
08683>        [ XI MP=. 68: TI MP=. 85]
08684>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08685>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08686>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  491. : MNI =. 013: SCI =    . 0]
08687>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08688> R0025: C00100-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08689>      ROUTE RESERVOIR -->      1. 0 02: AI7            12. 04      1. 933 No_date   28: 03   58. 43   n/ a      . 000
08690>                       out <=      1. 0 01: AI 7STR         12. 04       . 553 No_date   28: 29   58. 43   n/ a      . 000
08691>                  overf low <=      1. 0 03: AI 7OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08692>        [MsSt o ls ked=. 3155E+00   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08693> R0025: C00101-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08694>      CONTI NUOUS STANDHYD      1. 0 01: ST- 4           . 35       . 055 No_date   28: 00   45. 54   . 612      . 000
08695>        [ XI MP=. 46: TI MP=. 57]
08696>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08697>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08698>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  84. : MNI =. 013: SCI =    . 0]
08699>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08700> R0025: C00102-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08701>      ROUTE RESERVOIR -->      1. 0 02: ST- 4           . 35       . 055 No_date   28: 00   45. 54   n/ a      . 000
08702>                       out <=      1. 0 01: ST4STR          . 35       . 031 No_date   28: 07   45. 54   n/ a      . 000
08703>                  overf low <=      1. 0 03: ST4OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08704>        [MsSt o ls ked=. 2092E- 02   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08705> R0025: C00103-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08706>      CONTI NUOUS STANDHYD      1. 0 01: AI 8            5. 30       . 922 No_date   28: 02   58. 43   . 785      . 000
08707>        [ XI MP=. 68: TI MP=. 85]
08708>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08709>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08710>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  326. : MNI =. 013: SCI =    . 0]
08711>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08712> R0025: C00104-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08713>      ROUTE RESERVOIR -->      1. 0 02: AI 8            5. 30       . 922 No_date   28: 02   58. 43   n/ a      . 000
08714>                       out <=      1. 0 01: AI 8STR         5. 30       . 247 No_date   28: 25   58. 43   n/ a      . 000
08715>                  overf low <=      1. 0 03: AI 8OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08716>        [MsSt o ls ked=. 1408E+00   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08717> R0025: C00105-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08718>      ADD HYD                  1. 0 02: DRAI N2         330. 34      4. 806 No_date   29: 00   23. 95   n/ a      . 000
08719>                           +      1. 0 02: DI2             2. 28       . 062 No_date   29: 03   37. 38   n/ a      . 000
08720>                           +      1. 0 02: AI 7STR         12. 04       . 553 No_date   28: 29   58. 43   n/ a      . 000
08721>                           +      1. 0 02: AI 7OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08722>                           +      1. 0 02: ST4STR          . 35       . 031 No_date   28: 07   45. 54   n/ a      . 000
08723>                           +      1. 0 02: ST4OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08724>                           +      1. 0 02: AI 8STR         5. 30       . 247 No_date   28: 25   58. 43   n/ a      . 000
08725>                           +      1. 0 02: AI 8OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08726>                      SUM=      1. 0 01: PT3ST4          350. 31      5. 557 No_date   28: 56   25. 77   n/ a      . 000
08727> R0025: C00106-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08728>      ROUTE CHANNEL    -->      1. 0 02: PT3ST4          350. 31      5. 557 No_date   28: 56   25. 77   n/ a      . 000
08729>        [ RDT=  1. 00]  out <-      1. 0 01: DRAI N3         350. 31      5. 293 No_date   29: 13   25. 77   n/ a      . 000
08730>        [ L/ S/ n=  525. / . 230/ . 043]
08731>        [ Vmax=  . 603: Dmax=  1. 137]
08732> R0025: C00107-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08733>      CONTI NUOUS NASHYD       1. 0 01: DI              2. 51       . 095 No_date   28: 43   40. 67   . 547      . 000
08734>        [ CN=  86. 0:  N=  3. 00:  Tp=  . 73]
08735>        [ I aREC=  4. 00:  SMN=  17. 43:  SMX=. 116. 21:  SK=  . 010]
08736>        [ I nter Event Ti me=  12. 00]
08737> R0025: C00108-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08738>      CONTI NUOUS STANDHYD      1. 0 01: CI              3. 41       . 618 No_date   28: 01   58. 43   . 785      . 000
08739>        [ XI MP=. 68: TI MP=. 85]
08740>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08741>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08742>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  261. : MNI =. 013: SCI =    . 0]
08743>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08744> R0025: C00109-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08745>      ROUTE RESERVOIR -->      1. 0 02: CI              3. 41       . 618 No_date   28: 01   58. 43   n/ a      . 000
08746>                       out <=      1. 0 01: CI - STR        3. 41       . 159 No_date   28: 23   58. 43   n/ a      . 000
08747>                  overf low <=      1. 0 03: CI - OVF         . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08748>        [MsSt o ls ked=. 9080E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08749> R0025: C00110-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08750>      CONTI NUOUS STANDHYD      1. 0 01: ST- 5           . 45       . 071 No_date   28: 00   45. 54   . 612      . 000
08751>        [ XI MP=. 46: TI MP=. 57]
08752>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08753>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08754>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  95. : MNI =. 013: SCI =    . 0]
08755>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08756> R0025: C00111-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08757>      ROUTE RESERVOIR -->      1. 0 02: ST- 5           . 45       . 071 No_date   28: 00   45. 54   n/ a      . 000
08758>                       out <=      1. 0 01: ST5STR          . 45       . 040 No_date   28: 07   45. 54   n/ a      . 000
08759>                  overf low <=      1. 0 03: ST5OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08760>        [MsSt o ls ked=. 2455E- 02   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08761> R0025: C00112-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08762>      ADD HYD                  1. 0 02: I DRAI N3       350. 31      5. 293 No_date   29: 13   25. 77   n/ a      . 000
08763>                           +      1. 0 02: DI              2. 51       . 095 No_date   28: 43   40. 67   n/ a      . 000
08764>                           +      1. 0 02: CI - STR        3. 41       . 159 No_date   28: 23   58. 43   n/ a      . 000
08765>                           +      1. 0 02: CI - OVF         . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08766>                           +      1. 0 02: ST5STR          . 45       . 040 No_date   28: 07   45. 54   n/ a      . 000
08767>                           +      1. 0 02: ST5OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08768>                      SUM=      1. 0 01: ST5- E          356. 68      5. 480 No_date   29: 11   26. 21   n/ a      . 000
08769> R0025: C00113-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08770>      CONTI NUOUS STANDHYD      1. 0 01: STRAND          7. 59       . 918 No_date   28: 10   57. 02   . 767      . 000
08771>        [ XI MP=. 64: TI MP=. 85]
08772>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08773>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
08774>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =1230. : MNI =. 013: SCI =    . 0]
08775>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08776> R0025: C00114-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08777>      ROUTE RESERVOIR -->      1. 0 02: STRAND          7. 59       . 918 No_date   28: 10   57. 02   n/ a      . 000
08778>                       out <=      1. 0 01: S- POND         7. 59       . 109 No_date   29: 19   57. 02   n/ a      . 000
08779>                  overf low <=      1. 0 03: S- OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08780>        [MsSt o ls ked=. 2915E+00   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08781> R0025: C00115-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08782>      ADD HYD                  1. 0 02: ST5- E          356. 68      5. 480 No_date   29: 11   26. 21   n/ a      . 000
08783>                           +      1. 0 02: S- POND         7. 59       . 109 No_date   29: 19   57. 02   n/ a      . 000
08784>                           +      1. 0 02: S- OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08785>                      SUM=      1. 0 01: SSAOUT          364. 27      5. 589 No_date   29: 11   26. 85   n/ a      . 000
08786> R0025: C00116-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08787>      SAVE HYD                 1. 0 01: SSAOUT          364. 27      5. 589 No_date   29: 11   26. 85   n/ a      . 000
08788>        fname : SSAOUT. 0025
08789>        remark: SSAOUT

08790> R0025: C00117-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08791>      CONTI NUOUS STANDHYD      1. 0 01: Area- A         66. 75      7. 879 No_date   28: 09   56. 06   . 754      . 000
08792>        [ XI MP=. 64: TI MP=. 80]
08793>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08794>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08795>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =1155. : MNI =. 013: SCI =    . 0]
08796>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08797> R0025: C00118-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08798>      SAVE HYD                 1. 0 01: Area- A         66. 75      7. 879 No_date   28: 09   56. 06   n/ a      . 000
08799>        fname : Area- A 0025
08800>        remark: SMWF- A I nflow
08801> R0025: C00119-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08802>      ROUTE RESERVOIR -->      1. 0 02: Area- A         66. 75      7. 879 No_date   28: 09   56. 06   n/ a      . 000
08803>                       out <=      1. 0 01: SWMF- A         66. 75       . 788 No_date   29: 28   56. 05   n/ a      . 000
08804>                  overf low <=      1. 0 03: SWMOVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08805>        [MsSt o ls ked=. 2643E+01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08806> R0025: C00120-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08807>      SAVE HYD                 1. 0 01: SWMF- A         66. 75       . 788 No_date   29: 28   56. 05   n/ a      . 000
08808>        fname : SWMF- A 0025
08809>        remark: SMWF- A Out flow
08810> R0025: C00121-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08811>      ADD HYD                  1. 0 02: SSAOUT          364. 27      5. 589 No_date   29: 11   26. 85   n/ a      . 000
08812>                           +      1. 0 02: SWMF- A         66. 75       . 788 No_date   29: 28   56. 05   n/ a      . 000
08813>                           +      1. 0 02: SWMOVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08814>                      SUM=      1. 0 01: PT4ST5          431. 02      6. 356 No_date   29: 13   31. 37   n/ a      . 000
08815> R0025: C00122-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08816>      CONTI NUOUS STANDHYD      1. 0 01: C6              1. 87       . 354 No_date   28: 01   58. 43   . 785      . 000
08817>        [ XI MP=. 68: TI MP=. 85]
08818>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08819>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08820>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  193. : MNI =. 013: SCI =    . 0]
08821>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08822> R0025: C00123-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08823>      ROUTE RESERVOIR -->      1. 0 02: C6              1. 87       . 354 No_date   28: 01   58. 43   n/ a      . 000
08824>                       out <=      1. 0 01: C6- STR         1. 87       . 089 No_date   28: 21   58. 43   n/ a      . 000
08825>                  overf low <=      1. 0 03: C6- OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08826>        [MsSt o ls ked=. 5013E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08827> R0025: C00124-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08828>      CONTI NUOUS STANDHYD      1. 0 01: C7              1. 62       . 309 No_date   28: 01   58. 43   . 785      . 000
08829>        [ XI MP=. 68: TI MP=. 85]
08830>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08831>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08832>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  180. : MNI =. 013: SCI =    . 0]
08833>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08834> R0025: C00125-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08835>      ROUTE RESERVOIR -->      1. 0 02: C7              1. 62       . 309 No_date   28: 01   58. 43   n/ a      . 000
08836>                       out <=      1. 0 01: C7- STR         1. 62       . 077 No_date   28: 21   58. 43   n/ a      . 000
08837>                  overf low <=      1. 0 03: C7- OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08838>        [MsSt o ls ked=. 4331E- 01   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08839> R0025: C00126-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08840>      CONTI NUOUS STANDHYD      1. 0 01: ST- 6             . 41       . 065 No_date   28: 00   45. 54   . 612      . 000
08841>        [ XI MP=. 46: TI MP=. 57]
08842>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08843>        [ Pervious        area:  I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
08844>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =  . 50: LGI =  91. : MNI =. 013: SCI =    . 0]
08845>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08846> R0025: C00127-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08847>      ROUTE RESERVOIR -->      1. 0 02: ST- 6             . 41       . 065 No_date   28: 00   45. 54   n/ a      . 000
08848>                       out <=      1. 0 01: ST6STR          . 41       . 036 No_date   28: 07   45. 54   n/ a      . 000
08849>                  overf low <=      1. 0 03: ST6OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08850>        [MsSt o ls ked=. 2350E- 02   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08851> R0025: C00128-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08852>      ADD HYD                  1. 0 02: PT4ST5          431. 02      6. 356 No_date   29: 13   31. 37   n/ a      . 000
08853>                           +      1. 0 02: C6- STR         1. 87       . 089 No_date   28: 21   58. 43   n/ a      . 000
08854>                           +      1. 0 02: C6- OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08855>                           +      1. 0 02: C7- STR         1. 62       . 077 No_date   28: 21   58. 43   n/ a      . 000
08856>                           +      1. 0 02: C7- OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08857>                           +      1. 0 02: ST6STR          . 41       . 036 No_date   28: 07   45. 54   n/ a      . 000
08858>                           +      1. 0 02: ST6OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08859>                      SUM=      1. 0 01: PT5ST5          434. 92      6. 464 No_date   29: 12   31. 60   n/ a      . 000
08860> R0025: C00129-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08861>      ROUTE CHANNEL    -->      1. 0 02: PT5ST5          434. 92      6. 464 No_date   29: 12   31. 60   n/ a      . 000
08862>        [ RDT=  1. 00]  out <-      1. 0 01: DRAI N4         434. 92      6. 229 No_date   29: 21   31. 60   n/ a      . 000
08863>        [ L/ S/ n=  324. / . 100/ . 043]
08864>        [ Vmax=  . 475: Dmax=  1. 440]
08865> R0025: C00130-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08866>      CONTI NUOUS NASHYD       1. 0 01: D4              1. 73       . 082 No_date   28: 34   43. 34   . 583      . 000
08867>        [ CN=  88. 0:  N=  3. 00:  Tp=  . 60]
08868>        [ I aREC=  4. 00:  SMN=  14. 94:  SMX=  99. 61:  SK=  . 010]
08869>        [ I nter Event Ti me=  12. 00]
08870> R0025: C00131-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08871>      CONTI NUOUS STANDHYD      1. 0 01: Area- B         24. 04      3. 916 No_date   28: 03   54. 85   . 737      . 000
08872>        [ XI MP=. 62: TI MP=. 77]
08873>        [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
08874>        [ Pervious        area:  I Aper= 4. 67: SLPP=1. 40: LGP=  50. : MNP=. 250: SCP=    . 0]
08875>        [ I mpervious     area:  I Aimp= 1. 57: SLPI =1. 40: LGI =  693. : MNI =. 013: SCI =    . 0]
08876>        [ I aREC i mp=    4. 00:  I aREC per=    4. 00]
08877> R0025: C00132-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08878>      ROUTE RESERVOIR -->      1. 0 02: Area- B         24. 04      3. 916 No_date   28: 03   54. 85   n/ a      . 000
08879>                       out <=      1. 0 01: SWMF- B         24. 04       . 492 No_date   28: 44   54. 85   n/ a      . 000
08880>                  overf low <=      1. 0 03: SWMBOVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08881>        [MsSt o ls ked=. 8178E+00   m3,  Tot OvrVol =. 0000E+00   m3,  N- Ovf =      0,  Tot Dur Ovf =      0. hr s ]
08882> R0025: C00133-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
08883>      ADD HYD                  1. 0 02: DRAI N4         434. 92      6. 229 No_date   29: 21   31. 60   n/ a      . 000
08884>                           +      1. 0 02: D4              1. 73       . 082 No_date   28: 34   43. 34   n/ a      . 000
08885>                           +      1. 0 02: SWMF- B         24. 04       . 492 No_date   28: 44   54. 85   n/ a      . 000
08886>                           +      1. 0 02: SWMBOVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
08887>                      SUM=      1. 0 01: D4- EX          460. 69      6. 717 No_date   29: 21   32. 86   n/ a      . 000
08888> R0025: C00134-------------DTmi n-1 D: NHYD---------AREAha - QPEAKcms - TpeakDat e_h
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08977> #*************************************************************************
08978> #     Catchment FOSTER
08979> #     - To Foster ditch (north of the Jock)
08980> #     - Partially developed (medium density); remining agricultural
08981> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
08982> #     - 2020-12-01 decrease Foster drainage area from(373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
08983> #     - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
08984> #*************************************************************************
08985> R0025: C00149---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
08986>     CONTI NUOUS STANDHYD      1. 0 01: FOSTER          325. 44     28. 008 No_date    28: 12    52. 35 . 704      . 000
08987>       [ XI MP=. 55: TI MP=. 55]
08988>       [ LOSS= 2 : CN= 74. 0]
08989>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
08990>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 50: LGI =1473. : MNI =. 013: SCI =   . 0]
08991>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
08992>       [ SMI N= 36. 67:  SMXx=244. 49:  SK=  . 010]
08993> #*************************************************************************
08994> #     Foster Pond
08995> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
08996> #       and a ratio of the catchment area to the West Clarke pond rating curve
08997> #       from the MSS for the next coordinates
08998> #*************************************************************************
08999> R0025: C00150---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09000>     ROUTE RESERVOI R ->       1. 0 02: FOSTER          325. 44     28. 008 No_date    28: 12    52. 35  n/ a      . 000
09001>                     out <=    1. 0 01: P_FOS           325. 44      7. 246 No_date    29: 04    52. 35  n/ a      . 000
09002>                overflow <=    1. 0 03: FO- OVF           . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09003>       {Mi St oSt ed=. 1008E+01  m3,  Tot Or Vol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
09004> R0025: C00151---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09005>     ADD HYD                   1. 0 02: P_FOS           325. 44      7. 246 No_date    29: 04    52. 35  n/ a      . 000
09006>                          +    1. 0 02: FO- OVF           . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09007>                       SUM=    1. 0 01: FOSTER- OUT     325. 44      7. 246 No_date    29: 04    52. 35  n/ a      . 000
09008> #*************************************************************************
09009> R0025: C00152---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09010>     CONTI NUOUS STANDHYD      1. 0 01: W_CLAR_BRA       73. 29      9. 076 No_date    28: 05    56. 82 . 764      . 000
09011>       [ XI MP=. 60: TI MP=. 65]
09012>       [ LOSS= 2 : CN= 77. 0]
09013>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09014>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 50: LGI = 699. : MNI =. 013: SCI =   . 0]
09015>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09016>       [ SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
09017> R0025: C00153---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09018>     ROUTE RESERVOI R ->       1. 0 02: W_CLAR_BRA       73. 29      9. 076 No_date    28: 05    56. 82  n/ a      . 000
09019>                     out <=    1. 0 01: MS_P10           73. 29      1. 168 No_date    29: 06    56. 82  n/ a      . 000
09020>                overflow <=    1. 0 03: P10- OVF          . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09021>       {Mi St oSt ed=. 1685E+01  m3,  Tot Or Vol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
09022> R0025: C00154---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09023>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- FO- D2      4. 94       . 707 No_date    28: 01    52. 35 . 704      . 000
09024>       [ XI MP=. 55: TI MP=. 55]
09025>       [ LOSS= 2 : CN= 74. 0]
09026>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
09027>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 50: LGI = 181. : MNI =. 013: SCI =   . 0]
09028>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09029>       [ SMI N= 36. 67:  SMXx=244. 49:  SK=  . 010]
09030> R0025: C00155---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09031>     ADD HYD                   1. 0 02: FOSTER- OUT     325. 44      7. 246 No_date    29: 04    52. 35  n/ a      . 000
09032>                          +    1. 0 02: S- 1- FO- D2      4. 94       . 707 No_date    28: 01    52. 35  n/ a      . 000
09033>                       SUM=    1. 0 01: 980             330. 38      7. 312 No_date    29: 03    52. 35  n/ a      . 000
09034> R0025: C00156---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09035>     SAVE HYD                  1. 0 01: 980             330. 38      7. 312 No_date    29: 03    52. 35  n/ a      . 000
09036>       fname : 980. 0025
09037>       remark: Total Flows at Station 980 on Foster Drain
09038> #
09039> # Hydrograph from Node Foster SWM ( Station 980) to Node at station 520
09040> # Channel X- Section obtained from RVCA Hydraulic Model - Station 980
09041> #
09042> R0025: C00157---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09043>     ROUTE CHANNEL     ->      1. 0 02: 980             330. 38      7. 312 No_date    29: 03    52. 35  n/ a      . 000
09044> *   [ RDT= 1. 00] out <-      1. 0 01: 980- out        330. 38      7. 060 No_date    29: 12    52. 35  n/ a      . 000
09045>       [ L/ S/ n=  460. /  . 043/ . 035]
09046>       [ Vmx=  . 642: Dmx=  1. 518]
09047> R0025: C00158---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09048>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- FO- DI      5. 11       . 830 No_date    28: 00    56. 90 . 765      . 000
09049>       [ XI MP=. 65: TI MP=. 65]
09050>       [ LOSS= 2 : CN= 74. 0]
09051>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
09052>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 50: LGI = 185. : MNI =. 013: SCI =   . 0]
09053>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09054>       [ SMI N= 36. 67:  SMXx=244. 49:  SK=  . 010]
09055> R0025: C00159---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09056>     ADD HYD                   1. 0 02: 980- out        330. 38      7. 060 No_date    29: 12    52. 35  n/ a      . 000
09057>                          +    1. 0 02: S- 1- FO- DI      5. 11       . 830 No_date    28: 00    56. 90  n/ a      . 000
09058>                       SUM=    1. 0 01: 520             335. 49      7. 118 No_date    29: 12    52. 42  n/ a      . 000
09059> R0025: C00160---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09060>     SAVE HYD                  1. 0 01: 520             335. 49      7. 118 No_date    29: 12    52. 42  n/ a      . 000
09061>       fname : 520. 0025
09062>       remark: Total Flows at Sation 520 on Foster Drain
09063> # Hydrograph from Node at Station 520 ( Foster Drain) to Node at station 6016 ( Jock River)
09064> # Channel X- Section obtained from RVCA Hydraulic Model - Station 520
09065> #
09066> R0025: C00161---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09067>     ROUTE CHANNEL     ->      1. 0 02: 520             335. 49      7. 118 No_date    29: 12    52. 42  n/ a      . 000
09068>       [ RDT= 1. 00] out <-     1. 0 01: 520- out        335. 49      7. 060 No_date    29: 22    52. 42  n/ a      . 000
09069>       [ L/ S/ n=  860. /  . 587/ . 035]
09070>       [ Vmx=  1. 475: Dmx=  . 723]
09071> R0025: C00162---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09072>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- FO- F- D    14. 96      2. 238 No_date    28: 02    56. 90 . 765      . 000
09073>       [ XI MP=. 65: TI MP=. 65]
09074>       [ LOSS= 2 : CN= 74. 0]
09075>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
09076>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 50: LGI = 316. : MNI =. 013: SCI =   . 0]
09077>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09078>       [ SMI N= 36. 67:  SMXx=244. 49:  SK=  . 010]
09079> R0025: C00163---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09080>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- D8          5. 27       . 945 No_date    28: 01    42. 02 . 565      . 000
09081>       [ XI MP=. 32: TI MP=. 65]
09082>       [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
09083>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09084>       [ Impervious    area: I Aimp=  . 79: SLPI=  . 75: LGI = 187. : MNI =. 013: SCI =   . 0]
09085>       [ I aREC I mp=  4. 00: I aRECper=    4. 00]
09086> R0025: C00164---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09087>     CONTI NUOUS NASHYD        1. 0 01: S- 1- A          75. 88      2. 541 No_date    28: 36    34. 14 . 459      . 000
09088>       [ CN=  77. 0:  N=  3. 00:  Tp=    . 62]
09089>       [ I aREC=  4. 00:  SMI N=  31. 15:  SMXx=207. 66:  SK=  . 010]
09090>       [ I nterEventTime=   12. 00]
09091> R0025: C00165---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09092>     CONTI NUOUS NASHYD        1. 0 01: W_CLAR_UND       35. 65       . 789 No_date    29: 10    34. 14 . 459      . 000
09093>       [ CN=  77. 0:  N=  3. 00:  Tp=  1. 10]
09094>       [ I aREC=  4. 00:  SMI N=  31. 15:  SMXx=207. 66:  SK=  . 010]
09095>       [ I nterEventTime=   12. 00]
09096> R0025: C00166---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09097>     ADD HYD                   1. 0 02: N_FO            53577. 82    109. 064 No_date    33: 50    28. 74  n/ a      . 000
09098>                          +    1. 0 02: 520- out        335. 49      7. 060 No_date    29: 22    52. 42  n/ a      . 000
09099>                          +    1. 0 02: MS_P10           73. 29      1. 168 No_date    29: 06    56. 82  n/ a      . 000
09100>                          +    1. 0 02: P10- OVF          . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09101>                          +    1. 0 02: W_CLAR_UND       35. 65       . 789 No_date    29: 10    34. 14  n/ a      . 000
09102>                          +    1. 0 02: S- 1- FO- F- D    14. 96      2. 238 No_date    28: 02    56. 90  n/ a      . 000
09103>                          +    1. 0 02: S- 1- D8          5. 27       . 945 No_date    28: 01    42. 02  n/ a      . 000
09104>                          +    1. 0 02: S- 1- A          75. 88      2. 541 No_date    28: 36    34. 14  n/ a      . 000
09105>                       SUM=    1. 0 01: SN_FO           54118. 36    113. 639 No_date    33: 28    28. 94  n/ a      . 000
09106> R0025: C00167---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09107>     SAVE HYD                  1. 0 01: SN_FO           54118. 36    113. 639 No_date    33: 28    28. 94  n/ a      . 000
09108>       fname : SN_FO. 0025
09109>       remark: Total Flows at Foster Drain
09110> # Hydrograph from Node Foster routed to Node at Cedarview Road
09111> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6016
09112> #
09113> R0025: C00168---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09114>     ROUTE CHANNEL     ->      1. 0 02: SN_FO           54118. 36    113. 639 No_date    33: 28    28. 94  n/ a      . 000
09115> *   [ RDT= 1. 00] out <-      1. 0 01: N_CE            54118. 36    113. 515 No_date    33: 32    28. 94  n/ a      . 000
09116>       [ L/ S/ n=  159. /  . 082/ . 035]
09117>       [ Vmx=  1. 423: Dmx=  3. 806]
09118> #*************************************************************************
09119> #     Catchment S- 1
09120> #     - To Jock River (north and south of Jock)
09121> #     - Primarily agricultural fields; portion of sand quarry
09122> #*************************************************************************
09123> R0025: C00169---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09124>     CONTI NUOUS NASHYD        1. 0 01: S- 1- B          55. 36      2. 311 No_date    28: 23    34. 14 . 459      . 000
09125>       [ CN=  77. 0:  N=  3. 00:  Tp=    . 45]
09126>       [ I aREC=  4. 00:  SMI N=  31. 15:  SMXx=207. 66:  SK=  . 010]
09127>       [ I nterEventTime=   12. 00]
09128> #     - JFSA 2021- 02- 24 change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
09129> #     - JFSA 2021- 02- 24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore. "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
09130> #     - JFSA 2021- 01- 19, after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymore
09131> R0025: C00170---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09132>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- DI         21. 67      3. 385 No_date    28: 01    57. 38 . 771      . 000
09133>       [ XI MP=. 65: TI MP=. 65]
09134>       [ LOSS= 2 : CN= 75. 0]
09135>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09136>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 75: LGI = 380. : MNI =. 013: SCI =   . 0]
09137>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09138>       [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
09139> R0025: C00171---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09140>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- D4          3. 28       . 581 No_date    28: 00    57. 38 . 771      . 000
09141>       [ XI MP=. 65: TI MP=. 65]
09142>       [ LOSS= 2 : CN= 75. 0]
09143>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09144>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 75: LGI = 148. : MNI =. 013: SCI =   . 0]
09145>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09146>       [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
09147> R0025: C00172---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09148>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- D5         12. 84      2. 083 No_date    28: 01    57. 38 . 771      . 000
09149>       [ XI MP=. 65: TI MP=. 65]
09150>       [ LOSS= 2 : CN= 75. 0]
09151>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09152>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 75: LGI = 293. : MNI =. 013: SCI =   . 0]
09153>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09154>       [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
09155> R0025: C00173---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09156>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- D6          1. 75       . 319 No_date    28: 00    57. 38 . 771      . 000
09157>       [ XI MP=. 65: TI MP=. 65]
09158>       [ LOSS= 2 : CN= 75. 0]
09159>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09160>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 75: LGI = 108. : MNI =. 013: SCI =   . 0]
09161>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09162>       [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
09163> R0025: C00174---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09164>     CONTI NUOUS STANDHYD      1. 0 01: S- 1- D7          2. 03       . 369 No_date    28: 00    57. 38 . 771      . 000
09165>       [ XI MP=. 65: TI MP=. 65]
09166>       [ LOSS= 2 : CN= 75. 0]
09167>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09168>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 75: LGI = 116. : MNI =. 013: SCI =   . 0]
09169>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09170>       [ SMI N= 33. 81:  SMXx=225. 43:  SK=  . 010]
09171> #     Catchment W_CLAR
09172> #     - To West Clarke Drain (south of the Jock)
09173> #     - Subdivision with 43% imp. as per Barrhaven South MSS
09174> #     - 2020- 11- 30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)- 11
09175> #     - 2020- 11- 30 update CLARKE Drainage Area to MNOR and ALL
09176> #*************************************************************************
09177> R0025: C00175---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09178>     CONTI NUOUS STANDHYD      1. 0 01: W_CLAR_M          1. 77       . 279 No_date    28: 00    52. 78 . 709      . 000
09179>       [ XI MP=. 46: TI MP=. 59]
09180>       [ LOSS= 2 : CN= 77. 0]
09181>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09182>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI = 109. : MNI =. 013: SCI =   . 0]
09183>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09184>       [ SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
09185> #  5- Year + 12% Capture
09186> R0025: C00176---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09187>     ROUTE RESERVOI R ->       1. 0 02: W_CLAR_M          1. 77       . 279 No_date    28: 00    52. 78  n/ a      . 000
09188>                     out <=    1. 0 03: W_CLAR_Min        1. 73       . 213 No_date    27: 54    52. 78  n/ a      . 000
09189>                overflow <=    1. 0 03: W_CLAR_Maj         . 04       . 062 No_date    28: 01    52. 78  n/ a      . 000
09190>       {Mi St oSt ed=. 1173E- 03  m3,  Tot Or Vol =. 2205E- 02  m3,  N- Or f=     1,  Tot Dur Or f=     0. hr s}
09191> R0025: C00177---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09192>     CONTI NUOUS STANDHYD      1. 0 01: W_CLAR_ALL      119. 40     15. 305 No_date    28: 04    56. 82 . 764      . 000
09193>       [ XI MP=. 60: TI MP=. 65]
09194>       [ LOSS= 2 : CN= 77. 0]
09195>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
09196>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI = 892. : MNI =. 013: SCI =   . 0]
09197>       [ I aRECI mp=   4. 00: I aRECper=    4. 00]
09198>       [ SMI N= 31. 15:  SMXx=207. 66:  SK=  . 010]
09199> R0025: C00178---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09200>     ADD HYD                   1. 0 02: W_CLAR_ALL      119. 40     15. 305 No_date    28: 04    56. 82  n/ a      . 000
09201>                          +    1. 0 02: W_CLAR_Maj         . 04       . 062 No_date    28: 01    52. 78  n/ a      . 000
09202>                       SUM=    1. 0 01: W_CLAR          119. 44     15. 305 No_date    28: 04    56. 81  n/ a      . 000
09203> R0025: C00179---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09204>     SAVE HYD                  1. 0 01: W_CLAR          119. 44     15. 305 No_date    28: 04    56. 81  n/ a      . 000
09205>       fname : W_CLAR. 0025
09206>       remark: Total Flows to West Clarke
09207> #*************************************************************************
09208> #     West Clarke Pond 2
09209> #     - Rating curve obtained from Barrhaven South MSS modeling
09210> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
09211> #*************************************************************************
09212> R0025: C00180---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09213>     ROUTE RESERVOI R ->       1. 0 02: W_CLAR          119. 44     15. 305 No_date    28: 04    56. 81  n/ a      . 000
09214>                     out <=    1. 0 01: MS_P2           119. 44      7. 398 No_date    28: 20    56. 81  n/ a      . 000
09215>                overflow <=    1. 0 03: P2- OVF            . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09216>       {Mi St oSt ed=. 2962E+01  m3,  Tot Or Vol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
09217> #*************************************************************************
09218> R0025: C00181---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09219>     ADD HYD                   1. 0 02: N_CE            54118. 36    113. 515 No_date    33: 32    28. 94  n/ a      . 000
09220>                          +    1. 0 02: S- 1- DI           3. 28       . 581 No_date    28: 00    57. 38  n/ a      . 000
09221>                          +    1. 0 02: S- 1- D5          12. 84      2. 083 No_date    28: 01    57. 38  n/ a      . 000
09222>                          +    1. 0 02: MS_P2            119. 44      7. 398 No_date    28: 20    56. 81  n/ a      . 000
09223>                          +    1. 0 02: P2- OVF            . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09224>                       SUM=    1. 0 01: SN_CE           54253. 92    114. 400 No_date    33: 32    29. 01  n/ a      . 000
09225> R0025: C00182---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09226>     SAVE HYD                  1. 0 01: SN_CE           54253. 92    114. 400 No_date    33: 32    29. 01  n/ a      . 000
09227>       fname : SN_CE. 0025
09228>       remark: Total Flows before Station 5737 on Jock River
09229> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5737
09230> # 2021- 02- 25 add station 5737 before station 5002.  Station 5737 was extracted from the HEC- RAS model  T: \ PROJ\ 1474- 16\ Des
09231> # JFSA 2021- 03- 02  change the slope to 0. 01756% instead of 0. 02593 to stabilize the model
09232> R0025: C00183---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09233>     ROUTE CHANNEL     ->      1. 0 02: SN_CE           54253. 92    114. 400 No_date    33: 32    29. 01  n/ a      . 000
09234> *   [ RDT= 1. 00] out <-      1. 0 01: 5737            54253. 92    107. 664 No_date    36: 05    29. 01  n/ a      . 000
09235>       [ L/ S/ n=  270. /  . 018/ . 035]
09236>       [ Vmx=  . 782: Dmx=  4. 973]
09237> R0025: C00184---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09238>     ADD HYD                   1. 0 02: 5737            54253. 92    107. 664 No_date    36: 05    29. 01  n/ a      . 000
09239>                          +    1. 0 02: S- 1- DI           21. 67      3. 385 No_date    28: 01    57. 38  n/ a      . 000
09240>                          +    1. 0 02: S- 1- D6            1. 75       . 319 No_date    28: 00    57. 38  n/ a      . 000
09241>                          +    1. 0 02: S- 1- D7            2. 03       . 369 No_date    28: 00    57. 38  n/ a      . 000
09242>                       SUM=    1. 0 01: 5002            54279. 37    107. 746 No_date    36: 02    29. 03  n/ a      . 000
09243> R0025: C00185---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09244>     SAVE HYD                  1. 0 01: 5002            54279. 37    107. 746 No_date    36: 02    29. 03  n/ a      . 000
09245>       fname : 5002. 0025
09246>       remark: Total Flows before Station 5002 on Jock River
09247> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
09248> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5002
09249> # JFSA 2021- 02- 19 Change the slope from 0. 01 % ( as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
09250> # JFSA 2021- 02- 19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
09251> # JFSA 2021- 02- 26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
09252> R0025: C00186---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09253>     ROUTE CHANNEL     ->      1. 0 02: 5002            54279. 37    107. 746 No_date    36: 02    29. 03  n/ a      . 000
09254> *   [ RDT= 1. 00] out <-      1. 0 01: N_WCa           54279. 37    107. 733 No_date    36: 08    29. 03  n/ a      . 000
09255>       [ L/ S/ n=  245. /  . 095/ . 035]
09256>       [ Vmx=  1. 210: Dmx=  2. 778]
09257> R0025: C00187---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09258>     ROUTE CHANNEL     ->      1. 0 02: N_WCa           54279. 37    107. 733 No_date    36: 08    29. 03  n/ a      . 000
09259> *   [ RDT= 1. 00] out <-      1. 0 01: N_WCb           54279. 37    107. 723 No_date    36: 14    29. 03  n/ a      . 000
09260>       [ L/ S/ n=  245. /  . 095/ . 035]
09261>       [ Vmx=  1. 210: Dmx=  2. 778]
09262> R0025: C00188---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09263>     ROUTE CHANNEL     ->      1. 0 02: N_WCb           54279. 37    107. 723 No_date    36: 14    29. 03  n/ a      . 000
09264> *   [ RDT= 1. 00] out <-      1. 0 01: N_WC            54279. 37    107. 676 No_date    36: 25    29. 03  n/ a      . 000
09265>       [ L/ S/ n=  245. /  . 095/ . 035]
09266>       [ Vmx=  1. 210: Dmx=  2. 778]
09267> #*************************************************************************
09268> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
09269> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
09270> #
09271> R0025: C00189---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09272>     ROUTE CHANNEL     ->      1. 0 02: N_WC            54279. 37    107. 676 No_date    36: 25    29. 03  n/ a      . 000
09273> *   [ RDT= 1. 00] out <-      1. 0 01: N_KB            54279. 37    103. 210 No_date    38: 36    29. 03  n/ a      . 000
09274>       [ L/ S/ n=  1020. /  . 050/ . 035]
09275>       [ Vmx=  1. 073: Dmx=  3. 484]
09276> #*************************************************************************
09277> #     Catchment KEN_BU
09278> #     - To Kennedy- Burnett SWM Facility
09279> #     - Outlets to Fraser- Clarke drain (north of the Jock)
09280> #     - Medium density residential subdivision
09281> #*************************************************************************
09282> #*************************************************************************
09283> #     Existing Kennedy- Burnett SWM Facility
09284> #     - Rating curve obtained from URTKBP
09285> #     - Tributary Drainage Area to Pond = 160 ha
09286> #*************************************************************************
09287> R0025: C00190---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09288>     CONTI NUOUS STANDHYD      1. 0 01: KB- 01A          40. 82      4. 186 No_date    28: 11    29. 35 . 395      . 000
09289>       [ XI MP=. 10: TI MP=. 40]
09290>       [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
09291>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
09292>       [ Impervious    area: I Aimp=  . 79: SLPI=  . 50: LGI = 522. : MNI =. 013: SCI =   . 0]
09293>       [ I aREC I mp=  4. 00: I aRECper=    4. 00]
09294> R0025: C00191---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09295>     COMPUTE DUALHYD           1. 0 01: KB- 01A          40. 82      4. 186 No_date    28: 11    29. 35  n/ a      . 000
09296>       Major System    /       1. 0 02: KB- 01A- M        . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09297>       Minor System    \       1. 0 03: KB- 01A- MN      40. 82      3. 600 No_date    28: 03    29. 50  n/ a      . 000
09298>       {MjSysSt o=. 3786E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
09299> R0025: C00192---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09300>     ADD HYD                   1. 0 02: KB- 01A- M        . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09301>                          +    1. 0 02: KB- 01A- MN      40. 82      3. 600 No_date    28: 03    29. 50  n/ a      . 000
09302>                       SUM=    1. 0 01: KB- 01A- S       40. 82      3. 600 No_date    28: 03    29. 50  n/ a      . 000
09303> R0025: C00193---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09304>     CONTI NUOUS STANDHYD      1. 0 01: KB- 01B          31. 10      3. 068 No_date    28: 07    32. 30 . 434      . 000
09305>       [ XI MP=. 19: TI MP=. 38]
09306>       [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
09307>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 42: LGP=  40. : MNP=. 250: SCP=    . 0]
09308>       [ Impervious    area: I Aimp=  . 79: SLPI=  . 42: LGI = 455. : MNI =. 013: SCI =   . 0]
09309>       [ I aREC I mp=  4. 00: I aRECper=    4. 00]
09310> R0025: C00194---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
09311>     COMPUTE DUALHYD           1. 0 01: KB- 01B          31. 10      3. 068 No_date    28: 07    32. 30  n/ a      . 000
09312>       Major System    /       1. 0 02: KB- 01B- M        . 00       . 000 No_date    0: 00      . 00  n/ a      . 000
09313>       Minor System    \       1. 0 03: KB- 01B- MN      31. 10      1. 585 No_date    27: 55    32. 52  n/ a      . 000
09314>       {MjSysSt o=. 1849E+04,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
09315> R0025: C00195---------- DTmin- I D: NHYD---------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. ---- DWFcms
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09351> R0025: C00202 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09352>     CONTINUOUS STANDHYD     1.0  01: KB-04          6.95     1.434 No_date   28:00   65.29 .878     .000
09353>       [ XI M=. 85: TI M=. 85]
09354>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09355>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09356>       [ Impervious    area: I Aimp=  . 94: SLPI=  . 50: LGI= 215. : MNI=. 013: SCI=   .0]
09357>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09358> R0025: C00203 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09359>     COMPUTE DUALHYD         1.0  01: KB-04          6.95     1.434 No_date   28:00   65.29     n/a     .000
09360>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09361>       Minor System    \     1.0  03: KB-04-MN      6.95      .503 No_date   27:45   65.54     n/a     .000
09362>       [ My Sys To=. 7689E+03, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09363> R0025: C00204 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09364>     ADD HYD                 1.0  02: KB-04-MI        .00          .000 No_date    0:00     .00     n/a     .000
09365>                        +    1.0  02: KB-04-MN      6.95      .503 No_date   27:45   65.54     n/a     .000
09366>                        SUM=  1.0  01: KB-04-S       6.95      .503 No_date   27:45   65.54     n/a     .000
09367> R0025: C00205 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09368>     CONTINUOUS STANDHYD     1.0  01: KB-05          5.19     1.147 No_date   28:00   69.06 .928     .000
09369>       [ XI M=. 93: TI M=. 93]
09370>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09371>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09372>       [ Impervious    area: I Aimp= 1. 57: SLPI=  . 50: LGI= 186. : MNI=. 013: SCI=   .0]
09373>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09374> R0025: C00206 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09375>     CONTINUOUS STANDHYD     1.0  01: KB-06          12.93     2.960 No_date   28:00   66.54 .895     .000
09376>       [ XI M=. 87: TI M=. 87]
09377>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09378>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09379>       [ Impervious    area: I Aimp=  . 94: SLPI=4. 75: LGI= 294. : MNI=. 013: SCI=   .0]
09380>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09381> R0025: C00207 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09382>     COMPUTE DUALHYD         1.0  01: KB-06          12.93     2.960 No_date   28:00   66.54     n/a     .000
09383>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09384>       Minor System    \     1.0  03: KB-06-MN      12.93     2.262 No_date   28:07   66.58     n/a     .000
09385>       [ My Sys To=. 2613E+03, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09386> R0025: C00208 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09387>     ADD HYD                 1.0  02: KB-06-MI        .00          .000 No_date    0:00     .00     n/a     .000
09388>                        +    1.0  02: KB-06-MN      12.93     2.262 No_date   28:07   66.58     n/a     .000
09389>                        SUM=  1.0  01: KB-06-S       12.93     2.262 No_date   28:07   66.58     n/a     .000
09390> R0025: C00209 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09391>     CONTINUOUS STANDHYD     1.0  01: KB-11          4.03      .817 No_date   28:00   55.88 .751     .000
09392>       [ XI M=. 68: TI M=. 68]
09393>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09394>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09395>       [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 164. : MNI=. 013: SCI=   .0]
09396>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09397> R0025: C00210 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09398>     COMPUTE DUALHYD         1.0  01: KB-11          4.03      .817 No_date   28:00   55.88     n/a     .000
09399>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09400>       Minor System    \     1.0  03: KB-11-MN       4.03      .577 No_date   27:53   55.96     n/a     .000
09401>       [ My Sys To=. 9558E+02, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09402> R0025: C00211 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09403>     ADD HYD                 1.0  02: KB-11-MI        .00          .000 No_date    0:00     .00     n/a     .000
09404>                        +    1.0  02: KB-11-MN       4.03      .577 No_date   27:53   55.96     n/a     .000
09405>                        SUM=  1.0  01: KB-11-S        4.03      .577 No_date   27:53   55.96     n/a     .000
09406> R0025: C00212 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09407>     CONTINUOUS STANDHYD     1.0  01: SI             4.99     1.184 No_date   28:00   69.06 .928     .000
09408>       [ XI M=. 93: TI M=. 93]
09409>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09410>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09411>       [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI= 182. : MNI=. 013: SCI=   .0]
09412>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09413> R0025: C00213 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09414>     CONTINUOUS STANDHYD     1.0  01: KB-15          2.15      .447 No_date   28:00   62.65 .842     .000
09415>       [ XI M=. 79: TI M=. 79]
09416>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09417>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09418>       [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 120. : MNI=. 013: SCI=   .0]
09419>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09420> R0025: C00214 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09421>     ADD HYD                 1.0  02: KB-01A-S       40.82     3.600 No_date   28:03   29.50     n/a     .000
09422>                        +    1.0  02: KB-01B-S       31.10     1.585 No_date   27:55   32.52     n/a     .000
09423>                        +    1.0  02: KB-01C-S       13.78     1.350 No_date   27:57   33.69     n/a     .000
09424>                        +    1.0  02: KB-03-S        84.78     5.270 No_date   27:56   33.21     n/a     .000
09425>                        +    1.0  02: KB-04-S         6.95      .503 No_date   27:45   65.54     n/a     .000
09426>                        +    1.0  02: KB-05           5.19     1.147 No_date   28:00   69.06     n/a     .000
09427>                        +    1.0  02: KB-06-S        12.93     2.262 No_date   28:07   66.58     n/a     .000
09428>                        +    1.0  02: KB-11-S         4.03      .577 No_date   27:53   55.96     n/a     .000
09429>                        +    1.0  02: KB-15           2.15      .447 No_date   28:00   62.65     n/a     .000
09430>                        +    1.0  02: KB-SI           4.99     1.184 No_date   28:00   69.06     n/a     .000
09431>                        SUM=  1.0  01: KB-P1         206.72    17.555 No_date   28:01   38.09     n/a     .000
09432> R0025: C00215 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09433>     ROUTE RESERVOIR -->     1.0  02: KB-P1          206.72    17.555 No_date   28:01   38.09     n/a     .000
09434>                        out <=  1.0  01: KB-P1R       201.26    12.438 No_date   28:05   38.09     n/a     .000
09435>                        overflow <=  1.0  03: KB-P1ovf   5.46     4.400 No_date   28:05   38.09     n/a     .000
09436>       [ Mx Stor ked=. 7322E+00  m3,  To t Orf Vol=. 2079E+00  m3,  N-Orf=    0,  To t Dur Orf=    0. hrs]
09437> R0025: C00216 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09438>     ADD HYD                 1.0  02: KB-P1R         201.26    12.438 No_date   28:05   38.09     n/a     .000
09439>                        +    1.0  02: KB-P1ovf         5.46     4.400 No_date   28:05   38.09     n/a     .000
09440>                        SUM=  1.0  01: KB-Pond1       206.72    16.838 No_date   28:05   38.09     n/a     .000
09441> R0025: C00217 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09442>     SAVE HYD                1.0  01: KB-Pond1       206.72    16.838 No_date   28:05   38.09 n/a       .000
09443>       fname : KB-Pond1. 0025
09444>       remark: To t al Flows at KB first pond
09445> R0025: C00218 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09446>     CONTINUOUS STANDHYD     1.0  01: KB-07          10.86     2.392 No_date   28:00   65.97 .887     .000
09447>       [ XI M=. 86: TI M=. 86]
09448>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09449>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09450>       [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 269. : MNI=. 013: SCI=   .0]
09451>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09452> R0025: C00219 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09453>     COMPUTE DUALHYD         1.0  01: KB-07          10.86     2.392 No_date   28:00   65.97     n/a     .000
09454>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09455>       Minor System    \     1.0  03: KB-07-MN      10.86     2.094 No_date   27:56   66.02     n/a     .000
09456>       [ My Sys To=. 7523E+02, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09457> R0025: C00220 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09458>     ADD HYD                 1.0  02: KB-07-MI        .00          .000 No_date    0:00     .00     n/a     .000
09459>                        +    1.0  02: KB-07-MN      10.86     2.094 No_date   27:56   66.02     n/a     .000
09460>                        SUM=  1.0  01: KB-07-S       10.86     2.094 No_date   27:56   66.02     n/a     .000
09461> R0025: C00221 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09462>     CONTINUOUS STANDHYD     1.0  01: KB-08           6.61     1.292 No_date   28:00   53.97 .726     .000
09463>       [ XI M=. 64: TI M=. 64]
09464>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09465>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09466>       [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=   .0]
09467>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09468> R0025: C00222 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09469>     COMPUTE DUALHYD         1.0  01: KB-08           6.61     1.292 No_date   28:00   53.97     n/a     .000
09470>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09471>       Minor System    \     1.0  03: KB-08-MN       6.61     1.058 No_date   27:55   54.34     n/a     .000
09472>       [ My Sys To=. 6817E+02, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09473> R0025: C00223 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09474>     ADD HYD                 1.0  02: KB-08-MI        .00          .000 No_date    0:00     .00     n/a     .000
09475>                        +    1.0  02: KB-08-MN       6.61     1.058 No_date   27:55   54.34     n/a     .000
09476>                        SUM=  1.0  01: KB-08-S        6.61     1.058 No_date   27:55   54.34     n/a     .000
09477> R0025: C00224 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09478>     CONTINUOUS STANDHYD     1.0  01: KB-09           2.60      .599 No_date   28:00   65.30 .878     .000
09479>       [ XI M=. 86: TI M=. 86]
09480>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09481>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09482>       [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=   .0]
09483>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09484> R0025: C00225 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09485>     CONTINUOUS STANDHYD     1.0  01: KB-10_1         2.37      .550 No_date   28:00   65.30 .878     .000
09486>       [ XI M=. 86: TI M=. 86]
09487>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09488>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09489>       [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=   .0]
09490>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09491> R0025: C00226 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09492>     CONTINUOUS STANDHYD     1.0  01: KB-10_2         1.14      .266 No_date   28:00   65.30 .878     .000
09493>       [ XI M=. 86: TI M=. 86]
09494>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09495>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09496>       [ Impervious    area: I Aimp= 1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=   .0]
09497>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09498> R0025: C00227 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09499>     CONTINUOUS STANDHYD     1.0  01: KB-12           4.86     1.059 No_date   28:00   61.90 .832     .000
09500>       [ XI M=. 79: TI M=. 79]
09501>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09502>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09503>       [ Impervious    area: I Aimp= 1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=   .0]
09504>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09505> R0025: C00228 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09506>     COMPUTE DUALHYD         1.0  01: KB-12           4.86     1.059 No_date   28:00   61.90     n/a     .000
09507>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09508>       Minor System    \     1.0  03: KB-12-MN       4.86      .867 No_date   27:54   62.20     n/a     .000
09509>       [ My Sys To=. 6022E+02, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09510> R0025: C00229 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09511>     ADD HYD                 1.0  02: KB-12-MI        .00          .000 No_date    0:00     .00     n/a     .000
09512>                        +    1.0  02: KB-12-MN       4.86      .867 No_date   27:54   62.20     n/a     .000
09513>                        SUM=  1.0  01: KB-12-S        4.86      .867 No_date   27:54   62.20     n/a     .000
09514> R0025: C00230 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09515>     CONTINUOUS STANDHYD     1.0  01: KB-13          10.19     1.930 No_date   28:00   53.97 .726     .000
09516>       [ XI M=. 64: TI M=. 64]
09517>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09518>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09519>       [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=   .0]
09520>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09521> R0025: C00231 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09522>     COMPUTE DUALHYD         1.0  01: KB-13          10.19     1.930 No_date   28:00   53.97     n/a     .000
09523>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09524>       Minor System    \     1.0  03: KB-13-MN      10.19     1.722 No_date   27:57   53.98     n/a     .000
09525>       [ My Sys To=. 4703E+02, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09526> R0025: C00232 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09527>     ADD HYD                 1.0  02: KB-13-MI        .00          .000 No_date    0:00     .00     n/a     .000
09528>                        +    1.0  02: KB-13-MN      10.19     1.722 No_date   27:57   53.98     n/a     .000
09529>                        SUM=  1.0  01: KB-13-S       10.19     1.722 No_date   27:57   53.98     n/a     .000
09530> R0025: C00233 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09531>     CONTINUOUS STANDHYD     1.0  01: KB-14           5.47     1.075 No_date   28:00   53.97 .726     .000
09532>       [ XI M=. 64: TI M=. 64]
09533>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09534>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09535>       [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=   .0]
09536>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09537> R0025: C00234 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09538>     COMPUTE DUALHYD         1.0  01: KB-14           5.47     1.075 No_date   28:00   53.97     n/a     .000
09539>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09540>       Minor System    \     1.0  03: KB-14-MN       5.47      .873 No_date   27:55   54.32     n/a     .000
09541>       [ My Sys To=. 6018E+02, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09542> R0025: C00235 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09543>     ADD HYD                 1.0  02: KB-14-MI        .00          .000 No_date    0:00     .00     n/a     .000
09544>                        +    1.0  02: KB-14-MN       5.47      .873 No_date   27:55   54.32     n/a     .000
09545>                        SUM=  1.0  01: KB-14-S        5.47      .873 No_date   27:55   54.32     n/a     .000
09546> R0025: C00236 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09547>     CONTINUOUS STANDHYD     1.0  01: KB-16_2         3.42      .649 No_date   28:01   58.24 .783     .000
09548>       [ XI M=. 71: TI M=. 71]
09549>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09550>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09551>       [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 151. : MNI=. 013: SCI=   .0]
09552>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09553> R0025: C00237 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09554>     ADD HYD                 1.0  02: KB-Pond1       206.72    16.838 No_date   28:05   38.09     n/a     .000
09555>                        +    1.0  02: KB-07-S        10.86     2.094 No_date   27:56   66.02     n/a     .000
09556>                        +    1.0  02: KB-08-S         6.61     1.058 No_date   27:55   54.34     n/a     .000
09557>                        +    1.0  02: KB-09           2.60      .599 No_date   28:00   65.30     n/a     .000
09558>                        +    1.0  02: KB-10_1         2.37      .550 No_date   28:00   65.30     n/a     .000
09559>                        +    1.0  02: KB-10_2         1.14      .266 No_date   28:00   65.30     n/a     .000
09560>                        +    1.0  02: KB-12-S         4.86      .867 No_date   27:54   62.20     n/a     .000
09561>                        +    1.0  02: KB-13-S        10.19     1.722 No_date   27:57   53.98     n/a     .000
09562>                        +    1.0  02: KB-14-S         5.47      .873 No_date   27:55   54.32     n/a     .000
09563>                        +    1.0  02: KB-16_2         3.42      .649 No_date   28:01   58.24     n/a     .000
09564>                        SUM=  1.0  01: KB-P2          254.24    24.423 No_date   28:05   42.08     n/a     .000
09565> R0025: C00238 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09566>     ROUTE RESERVOIR -->     1.0  02: KB-P2          254.24    24.423 No_date   28:05   42.08     n/a     .000
09567>                        out <=  1.0  01: KB-P2R       254.24    17.126 No_date   28:11   42.08     n/a     .000
09568>                        overflow <=  1.0  03: KB-P2ovf   .00      .000 No_date    0:00     .00     n/a     .000
09569>       [ Mx Stor ked=. 9755E+00  m3,  To t Orf Vol=. 0000E+00  m3,  N-Orf=    0,  To t Dur Orf=    0. hrs]
09570> R0025: C00239 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09571>     ADD HYD                 1.0  02: KB-P2R         254.24    17.126 No_date   28:11   42.08     n/a     .000
09572>                        +    1.0  02: KB-P2ovf         .00      .000 No_date    0:00     .00     n/a     .000
09573>                        SUM=  1.0  01: KB-Pond2       254.24    17.126 No_date   28:11   42.08     n/a     .000
09574> R0025: C00240 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09575>     SAVE HYD                1.0  01: KB-Pond2       254.24    17.126 No_date   28:11   42.08 n/a       .000
09576>       fname : KB-Pond2. 0025
09577>       remark: To t al Flows at KB second pond
09578> R0025: C00241 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09579>     CONTINUOUS STANDHYD     1.0  01: KB-16_1         2.80      .551 No_date   28:01   60.44 .812     .000
09580>       [ XI M=. 75: TI M=. 75]
09581>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09582>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09583>       [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 137. : MNI=. 013: SCI=   .0]
09584>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09585> R0025: C00242 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09586>     ADD HYD                 1.0  02: KB-Pond2       254.24    17.126 No_date   28:11   42.08     n/a     .000
09587>                        +    1.0  02: KB-16_1         2.80      .551 No_date   28:01   60.44     n/a     .000
09588>                        SUM=  1.0  01: KB-P3          257.04    17.347 No_date   28:10   42.28     n/a     .000
09589> R0025: C00243 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09590>     ROUTE RESERVOIR -->     1.0  02: KB-P3          257.04    17.347 No_date   28:10   42.28     n/a     .000
09591>                        out <=  1.0  01: KB-P3R       10.42      .051 No_date   17:19   42.28     n/a     .000
09592>                        overflow <=  1.0  03: KB-P3ovf   246.62   17.293 No_date   28:10   42.28     n/a     .000
09593>       [ Mx Stor ked=. 1993E-02  m3,  To t Orf Vol=. 1043E+02  m3,  N-Orf=    2,  To t Dur Orf=   23. hrs]
09594> R0025: C00244 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09595>     ADD HYD                 1.0  02: KB-P3R         10.42      .051 No_date   17:19   42.28     n/a     .000
09596>                        +    1.0  02: KB-P3ovf       246.62   17.293 No_date   28:10   42.28     n/a     .000
09597>                        SUM=  1.0  01: KB-Pond3       257.04    17.344 No_date   28:10   42.28     n/a     .000
09598> R0025: C00245 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09599>     SAVE HYD                1.0  01: KB-Pond3       257.04    17.344 No_date   28:10   42.28 n/a       .000
09600>       fname : KB-Pond3. 0025
09601>       remark: To t al Flows at KB third pond
09602> ********************************************************************************
09603> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
09604> #     - TO FRASER-CLARKE DRAIN
09605> ********************************************************************************
09606> R0025: C00246 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09607>     CONTINUOUS STANDHYD     1.0  01: FC-01           8.03     1.288 No_date   28:01   44.33 .596     .000
09608>       [ XI M=. 47: TI M=. 47]
09609>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09610>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09611>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=   .0]
09612>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09613> R0025: C00247 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09614>     COMPUTE DUALHYD         1.0  01: FC-01           8.03     1.288 No_date   28:01   44.33     n/a     .000
09615>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09616>       Minor System    \     1.0  03: FC-01-MN       8.03      .756 No_date   28:25   44.53     n/a     .000
09617>       [ My Sys To=. 2943E+03, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09618> R0025: C00248 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09619>     ADD HYD                 1.0  02: FC-01-MI        .00          .000 No_date    0:00     .00     n/a     .000
09620>                        +    1.0  02: FC-01-MN       8.03      .756 No_date   27:53   44.53     n/a     .000
09621>                        SUM=  1.0  01: FC-01-S        8.03      .756 No_date   27:53   44.53     n/a     .000
09622> R0025: C00249 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09623>     CONTINUOUS STANDHYD     1.0  01: FC-02          16.05     3.458 No_date   28:00   69.06 .928     .000
09624>       [ XI M=. 93: TI M=. 93]
09625>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09626>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09627>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=   .0]
09628>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09629> R0025: C00250 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09630>     COMPUTE DUALHYD         1.0  01: FC-02          16.05     3.458 No_date   28:00   69.06     n/a     .000
09631>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09632>       Minor System    \     1.0  03: FC-02-MN      16.05     1.159 No_date   27:44   69.13     n/a     .000
09633>       [ My Sys To=. 1941E+04, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09634> R0025: C00251 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09635>     ADD HYD                 1.0  02: FC-02-MI        .00          .000 No_date    0:00     .00     n/a     .000
09636>                        +    1.0  02: FC-02-MN      16.05     1.159 No_date   27:44   69.13     n/a     .000
09637>                        SUM=  1.0  01: FC-02-S       16.05     1.159 No_date   27:44   69.13     n/a     .000
09638> R0025: C00252 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09639>     CONTINUOUS STANDHYD     1.0  01: FC-03           7.37     1.375 No_date   28:00   53.47 .719     .000
09640>       [ XI M=. 64: TI M=. 64]
09641>       [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  .00]
09642>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
09643>       [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=   .0]
09644>       [ Ia REC] mp=   4. 00: Ia REC per=   4. 00]
09645> R0025: C00253 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
09646>     COMPUTE DUALHYD         1.0  01: FC-03           7.37     1.375 No_date   28:00   53.47     n/a     .000
09647>       Major System    /                .00          .000 No_date    0:00     .00     n/a     .000
09648>       Minor System    \     1.0  03: FC-03-MN       7.37      .358 No_date   27:43   53.66     n/a     .000
09649>       [ My Sys To=. 9407E+03, To t Orf Vol=. 0000E+00, N-Orf=    0, To t Dur Orf=    0. hrs]
09650> R0025: C00254 ---------- DTmin-1 D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_h:mn ---- RVmm R. C. ---- DWFcms
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09725>          [SM N= 26. 32:  SMX=175. 50:  SK= .010]
09726> R0025: C00266- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09727>       COMPUTE DUALHYD          1. 0 01: FRASER- D          21. 61        3. 258 No_date    28: 01    56. 29   n/ a      .000
09728>       Major System    /        1. 0 02: FRASER- J            .00         .000 No_date    0: 00      .00   n/ a      .000
09729>       Minor System    \        1. 0 03: FRASER- N          21. 61        2. 281 No_date    27: 55    56. 43   n/ a      .000
09730>          [M SysSt o=. 4729E+03,  Tot Or Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
09731> R0025: C00267- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09732>       ADD HYD                  1. 0 02: FRASER- J            .00         .000 No_date    0: 00      .00   n/ a      .000
09733>                          +     1. 0 01: FRASER- N          21. 61        2. 281 No_date    27: 55    56. 43   n/ a      .000
09734>                          SUM=  1. 0 01: FRASER- S          21. 61        2. 281 No_date    27: 55    56. 43   n/ a      .000
09735> R0025: C00268- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09736>       ADD HYD                  1. 0 02: MS- Pond3          257. 04      17. 344 No_date    28: 10    42. 28   n/ a      .000
09737>                          +     1. 0 02: S- 1- B            55. 36        2. 311 No_date    28: 23    34. 14   n/ a      .000
09738>                          +     1. 0 02: FRASER- DRN        13. 65         .594 No_date    28: 22    34. 14   n/ a      .000
09739>                          +     1. 0 02: FRASER- S          21. 61        2. 281 No_date    27: 55    56. 43   n/ a      .000
09740>                          +     1. 0 02: N_KB             54279. 37     103. 210 No_date    38: 36    29. 03   n/ a      .000
09741>                          +     1. 0 02: FC- 01- S            8. 03         .756 No_date    27: 53    44. 53   n/ a      .000
09742>                          +     1. 0 02: FC- 02- S           16. 05        1. 159 No_date    27: 44    69. 13   n/ a      .000
09743>                          +     1. 0 02: FC- 03- S            7. 37         .358 No_date    27: 43    53. 66   n/ a      .000
09744>                          SUM=  1. 0 01: 4241           54658. 48     103. 701 No_date    38: 36    29. 12   n/ a      .000
09745> R0025: C00269- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09746>       SAVE HYD                 1. 0 01: 4241           54658. 48     103. 701 No_date    38: 36    29. 12   n/ a      .000
09747>          fname : 4241. 0025
09748>          remark: Total Flows at Ken- Burnett Outlet
09749> # Hydrograph from Node Ken- Burnett to station 3633
09750> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4241
09751> #
09752> R0025: C00270- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09753>       ROUTE CHANNEL    ->     1. 0 02: 4241           54658. 48     103. 701 No_date    38: 36    29. 12   n/ a      .000
09754> *     [ RDT= 1. 00]  out <-     1. 0 01: 4241- out   54658. 48     103. 716 No_date    38: 34    29. 12   n/ a      .000
09755>          [ L/ S/ n=  294. /  . 109/ . 035]
09756>          [ Vmx= 1. 254: Dmx=  2. 210]
09757> R0025: C00271- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09758>       ADD HYD                  1. 0 02: 4241- out   54658. 48     103. 716 No_date    38: 34    29. 12   n/ a      .000
09759>                          +     1. 0 02: FC- 04- S           12. 87         .741 No_date    27: 45    53. 74   n/ a      .000
09760>                          +     1. 0 02: FC- 01- S            8. 24         .563 No_date    27: 45    53. 74   n/ a      .000
09761>                          +     1. 0 02: JR- 02- S            1. 59         .153 No_date    27: 47    53. 69   n/ a      .000
09762>                          SUM=  1. 0 01: SN_KB          54681. 18     103. 751 No_date    38: 34    29. 13   n/ a      .000
09763> R0025: C00272- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09764>       SAVE HYD                 1. 0 01: SN_KB          54681. 18     103. 751 No_date    38: 34    29. 13   n/ a      .000
09765>          fname : SN_KB. 0025
09766>          remark: HYD_COMMENT=[" Total Flows before Station 3633]
09767> # Hydrograph from Station 3633 to Node Todd
09768> # Channel X- Section obtained from RVCA Hydraulic Model - Station 3633
09769> # JFSA 2021- 02- 26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0. 0498% to 0. 2
09770> #
09771> R0025: C00273- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09772>       ROUTE CHANNEL    ->     1. 0 02: SN_KB          54681. 18     103. 751 No_date    38: 34    29. 13   n/ a      .000
09773>          [ RDT= 1. 00]  out <-     1. 0 01: N_TO         54681. 18     103. 735 No_date    38: 38    29. 13   n/ a      .000
09774>          [ L/ S/ n=  608. /  . 247/ . 035]
09775>          [ Vmx= 1. 675: Dmx=  1. 657]
09776> #*************************************************************************
09777> #     Catchment Greenbank
09778> #     - To Greenbank Drain (south of the Jock)
09779> #     - JFSA 2021- 01- 18 add Greenbank pond as per JFSA, P598( 06)- 15, June 2016
09780> #     - JFSA 2021- 01- 19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
09781> #*************************************************************************
09782> R0025: C00274- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09783>       CONTI NUOUS STANDHYD     1. 0 01: Greenbank       36. 60        5. 574 No_date    28: 02    58. 33   . 784     .000
09784>          [ XI M= 64: TI M= . 68]
09785>          [ LOSS= 2 : CN= 77. 0]
09786>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09787>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 494. : MNI =. 013: SCI =    . 0]
09788>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09789>          [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09790> R0025: C00275- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09791>       ROUTE RESERVOI R ->      1. 0 02: Greenbank       36. 60        5. 574 No_date    28: 02    58. 33   n/ a      .000
09792>                        out <=     1. 0 01: GreenB_MN       36. 60        3. 118 No_date    28: 11    58. 33   n/ a      .000
09793>                  overflow <=      1. 0 03: GreenB_MI         .00         .000 No_date    0: 00      .00   n/ a      .000
09794>          [ MxSt ol ke d= . 8739E+00   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
09795> R0025: C00276- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09796>       ADD HYD                  1. 0 02: N_TO           54681. 18     103. 735 No_date    38: 38    29. 13   n/ a      .000
09797>                          +     1. 0 02: GreenB_MI           .00         .000 No_date    0: 00      .00   n/ a      .000
09798>                          +     1. 0 02: GreenB_MN         36. 60        3. 118 No_date    28: 11    58. 33   n/ a      .000
09799>                          SUM=  1. 0 01: GreenB         54717. 78     103. 842 No_date    38: 38    29. 15   n/ a      .000
09800> R0025: C00277- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09801>       SAVE HYD                 1. 0 01: GreenB         54717. 78     103. 842 No_date    38: 38    29. 15   n/ a      .000
09802>          fname : GreenB. 0025
09803>          remark: Total Flows at Greenbank Drain
09804> #*************************************************************************
09805> #     Catchment TODD
09806> #     - To Todd Drain (south of the Jock)
09807> #     - Subdivision with 43% imp. as per Barrhaven South MSS
09808> #     - 2020- 11- 30 increase imp. based on P598( 04)- 11
09809> #     - 2020- 11- 30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598( 04)- 11
09810> #     - 2020- 11- 30 split  TODD Drainage Area to MAJOR, MINOR, POND and ALL
09811> #*************************************************************************
09812> #     - JFSA 2021- 01- 19 add "TODD_MN1" as part of Clarke("W_CLAR_M") and remove it from Todd
09813> R0025: C00278- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09814>       CONTI NUOUS STANDHYD     1. 0 01: TODD_MN2         2. 10         .339 No_date    28: 00    53. 59   . 720     .000
09815>          [ XI M= 53: TI M= . 57]
09816>          [ LOSS= 2 : CN= 77. 0]
09817>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09818>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 118. : MNI =. 013: SCI =    . 0]
09819>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09820>          [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09821> R0025: C00279- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09822>       CONTI NUOUS STANDHYD     1. 0 01: TODD_MN3          .12          .020 No_date    28: 00    53. 57   . 720     .000
09823>          [ XI M= 53: TI M= . 57]
09824>          [ LOSS= 2 : CN= 77. 0]
09825>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09826>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  28. : MNI =. 013: SCI =    . 0]
09827>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09828>          [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09829> R0025: C00280- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09830>       CONTI NUOUS STANDHYD     1. 0 01: TODD_MI         30. 23        4. 269 No_date    28: 02    55. 13   . 741     .000
09831>          [ XI M= 52: TI M= . 64]
09832>          [ LOSS= 2 : CN= 77. 0]
09833>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09834>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 449. : MNI =. 013: SCI =    . 0]
09835>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09836>          [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09837> R0025: C00281- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09838>       CONTI NUOUS STANDHYD     1. 0 01: TODD_ALL        112. 91       13. 312 No_date    28: 05    53. 38   . 718     .000
09839>          [ XI M= 52: TI M= . 57]
09840>          [ LOSS= 2 : CN= 77. 0]
09841>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09842>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 868. : MNI =. 013: SCI =    . 0]
09843>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09844>          [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09845> R0025: C00282- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09846>       CONTI NUOUS STANDHYD     1. 0 01: TODD_P           3. 06         .535 No_date    28: 00    57. 01   . 766     .000
09847>          [ XI M= 63: TI M= . 63]
09848>          [ LOSS= 2 : CN= 77. 0]
09849>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09850>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 143. : MNI =. 013: SCI =    . 0]
09851>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09852>          [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09853> # 5- Year + 12% Capture
09854> R0025: C00283- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09855>       ROUTE RESERVOI R ->      1. 0 02: TODD_MI         30. 23        4. 269 No_date    28: 02    55. 13   n/ a      .000
09856>                        out <=     1. 0 01: TODD_Mn         29. 48        3. 314 No_date    27: 57    55. 13   n/ a      .000
09857>                  overflow <=      1. 0 03: TODD_Mj            .75         .946 No_date    28: 03    55. 13   n/ a      .000
09858>          [ MxSt ol ke d= . 1175E- 03   m3,  Tot Or Vol =. 4153E- 01   m3,  N- Or f=      1,  Tot Dur Or f=      0. hrs]
09859> # 5- Year + 12% Capture
09860> R0025: C00284- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09861>       ROUTE RESERVOI R ->      1. 0 02: TODD_MN2         2. 10         .339 No_date    28: 00    53. 59   n/ a      .000
09862>                        out <=     1. 0 01: TODD_MN2n       2. 06         .268 No_date    27: 54    53. 60   n/ a      .000
09863>                  overflow <=      1. 0 03: TODD_MNj            .04         .067 No_date    28: 00    53. 59   n/ a      .000
09864>          [ MxSt ol ke d= . 8415E- 04   m3,  Tot Or Vol =. 2217E- 02   m3,  N- Or f=      1,  Tot Dur Or f=      0. hrs]
09865> R0025: C00285- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09866>       ROUTE RESERVOI R ->      1. 0 02: TODD_MN3          .12          .020 No_date    28: 00    53. 58   n/ a      .000
09867>                        out <=     1. 0 01: TODD_MN3n         .11         .016 No_date    27: 53    53. 58   n/ a      .000
09868>                  overflow <=      1. 0 03: TODD_MNj            .00         .004 No_date    28: 00    53. 58   n/ a      .000
09869>          [ MxSt ol ke d= . 1067E- 03   m3,  Tot Or Vol =. 1192E- 03   m3,  N- Or f=      1,  Tot Dur Or f=      0. hrs]
09870> R0025: C00286- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09871>       CONTI NUOUS STANDHYD     1. 0 01: A2               25. 50        2. 974 No_date    28: 03    49. 44   . 665     .000
09872>          [ XI M= 42: TI M= . 52]
09873>          [ LOSS= 2 : CN= 75. 0]
09874>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09875>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 566. : MNI =. 013: SCI =    . 0]
09876>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09877>          [ SM N= 33. 81:  SMX=225. 43:  SK= . 010]
09878> R0025: C00287- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09879>       COMPUTE DUALHYD          1. 0 01: A2               25. 50        2. 974 No_date    28: 03    49. 44   . 665     .000
09880>       Major System    /        1. 0 02: A2- MI             .00         .000 No_date    0: 00      .00   n/ a      .000
09881>       Minor System    \        1. 0 03: A2- MN           25. 50        1. 818 No_date    27: 54    49. 64   n/ a      .000
09882>          [ MxSt ol ke d= . 8120E+03,  Tot Or Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
09883> R0025: C00288- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09884>       ADD HYD                  1. 0 02: TODD_MN2n        2. 06         .268 No_date    27: 54    53. 60   n/ a      .000
09885>                          +     1. 0 02: TODD_MN3n           .11         .016 No_date    27: 53    53. 58   n/ a      .000
09886>                          +     1. 0 02: TODD_MNj            .75         .946 No_date    28: 03    55. 13   n/ a      .000
09887>                          +     1. 0 02: TODD_P             3. 06         .535 No_date    28: 00    57. 01   n/ a      .000
09888>                          +     1. 0 02: TODD_ALL         112. 91       13. 312 No_date    28: 05    53. 38   n/ a      .000
09889>                          +     1. 0 02: W_CLAR_Mn          1. 73         .213 No_date    27: 54    52. 78   n/ a      .000
09890>                          SUM=  1. 0 01: TODD           120. 62       14. 962 No_date    28: 03    53. 48   n/ a      .000
09891> R0025: C00289- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09892>       SAVE HYD                 1. 0 01: TODD           120. 62       14. 962 No_date    28: 03    53. 48   n/ a      .000
09893>          fname : TODD. 0025
09894>          remark: Total Flows at Todd Drain
09895> #*************************************************************************
09896> #     Todd Pond 3
09897> #     - Rating curve obtained from Barrhaven South MSS modeling
09898> #     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
09899> #*************************************************************************
09900> R0025: C00290- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09901>       ROUTE RESERVOI R ->      1. 0 02: TODD           120. 62       14. 962 No_date    28: 03    53. 48   n/ a      .000
09902>                        out <=     1. 0 01: MS_P3          120. 62        9. 717 No_date    28: 14    53. 48   n/ a      .000
09903>                  overflow <=      1. 0 03: P3- OVF            .00         .000 No_date    0: 00      .00   n/ a      .000
09904>          [ MxSt ol ke d= . 2619E+01   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
09905> R0025: C00291- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09906>       ADD HYD                  1. 0 02: GreenB         54717. 78     103. 842 No_date    38: 38    29. 15   n/ a      .000
09907>                          +     1. 0 02: MS_P3          120. 62        9. 717 No_date    28: 14    53. 48   n/ a      .000
09908>                          +     1. 0 02: P3- OVF            .00         .000 No_date    0: 00      .00   n/ a      .000
09909>                          +     1. 0 02: TODD_MNj           .04         .067 No_date    28: 00    53. 59   n/ a      .000
09910>                          +     1. 0 02: A2- MI             .00         .000 No_date    0: 00      .00   n/ a      .000
09911>                          SUM=  1. 0 01: SN_TO          54838. 44     104. 100 No_date    38: 38    29. 21   n/ a      .000
09912> R0025: C00292- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09913>       SAVE HYD                 1. 0 01: SN_TO          54838. 44     104. 100 No_date    38: 38    29. 21   n/ a      .000
09914>          fname : SN_TO. 0025
09915>          remark: Total Flows at Todd Drain
09916> #
09917> # Hydrograph from Todd Drain routed to Corrigan Drain
09918> # Channel X- Section obtained from RVCA Hydraulic Model - Station 2462
09919> # 2021- 02- 19 Change the slope from 0. 033 % (as per Stantec Report 2007) to 0. 05 % so the model will be more stable and g
09920> R0025: C00293- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09921>       ROUTE CHANNEL    ->     1. 0 02: SN_TO          54838. 44     104. 100 No_date    38: 38    29. 21   n/ a      .000
09922> *     [ RDT= 1. 00]  out <-     1. 0 01: N_TO         54838. 44     104. 039 No_date    38: 49    29. 21   n/ a      .000
09923>          [ L/ S/ n=  280. /  . 050/ . 045]
09924>          [ Vmx=  . 905: Dmx=  3. 154]
09925> R0025: C00294- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09926>       SAVE HYD                 1. 0 01: N_TO           54838. 44     104. 039 No_date    38: 49    29. 21   n/ a      .000
09927>          fname : N_TO. 0025
09928>          remark: Total inflows at Station 2462
09929> #*************************************************************************
09930> #     Catchment CORRIG
09931> #     - To Corrigan Drain (south of the Jock)
09932> #     - Primarily Developed (medium density)
09933> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
09934> #*************************************************************************
09935> R0025: C00295- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09936>       CONTI NUOUS STANDHYD     1. 0 01: corr1            15. 87        2. 535 No_date    28: 01    57. 01   . 766     .000
09937>          [ XI M= 63: TI M= . 63]
09938>          [ LOSS= 2 : CN= 77. 0]
09939>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09940>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 325. : MNI =. 013: SCI =    . 0]
09941>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09942>          [ SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09943> R0025: C00296- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09944>       COMPUTE DUALHYD          1. 0 01: corr1            15. 87        2. 535 No_date    28: 01    57. 01   n/ a      .000
09945>       Major System    /        1. 0 02: corr1- MI          .00         .000 No_date    0: 00      .00   n/ a      .000
09946>       Minor System    \        1. 0 03: corr1- MN        15. 87        1. 818 No_date    28: 15    57. 37   n/ a      .000
09947>          [ MxSt ol ke d= . 3150E+03,  Tot Or Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
09948> R0025: C00297- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09949>       CONTI NUOUS NASHYD       1. 0 01: corr2            12. 47         .276 No_date    29: 10    34. 14   . 459     .000
09950>          [ CN= 77. 0:  N= 3. 00:  Tp=    . 20]
09951>          [ I aREC= 4. 00:  SM N= 31. 15:  SMX=207. 66:  SK= . 010]
09952>          [ I nterEvent Time=  12. 00]
09953> R0025: C00298- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09954>       CONTI NUOUS STANDHYD     1. 0 01: Al- Corrig       15. 75        2. 022 No_date    28: 01    49. 44   . 665     .000
09955>          [ XI M= 42: TI M= . 52]
09956>          [ LOSS= 2 : CN= 75. 0]
09957>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09958>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 324. : MNI =. 013: SCI =    . 0]
09959>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09960>          [ SM N= 33. 81:  SMX=225. 43:  SK= . 010]
09961> R0025: C00299- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09962>       COMPUTE DUALHYD          1. 0 01: Al- Corrig       15. 75        2. 022 No_date    28: 01    49. 44   n/ a      .000
09963>       Major System    /        1. 0 02: Al- MI             .00         .000 No_date    0: 00      .00   n/ a      .000
09964>       Minor System    \        1. 0 03: Al- MN           15. 75        1. 818 No_date    27: 58    49. 57   n/ a      .000
09965>          [ MxSt ol ke d= . 4966E+02,  Tot Or Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
09966> R0025: C00300- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09967>       CONTI NUOUS NASHYD       1. 0 01: B1               2. 77         .097 No_date    28: 09    21. 19   . 285     .000
09968>          [ CN= 56. 0:  N= 3. 00:  Tp=    . 23]
09969>          [ I aREC= 4. 00:  SM N= 79. 69:  SMX=531. 24:  SK= . 010]
09970>          [ I nterEvent Time=  12. 00]
09971> R0025: C00301- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09972>       CONTI NUOUS STANDHYD     1. 0 01: A4               1. 27         .212 No_date    28: 01    57. 38   . 771     .000
09973>          [ XI M= 65: TI M= . 65]
09974>          [ LOSS= 2 : CN= 75. 0]
09975>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09976>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 253. : MNI =. 013: SCI =    . 0]
09977>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
09978>          [ SM N= 33. 81:  SMX=225. 43:  SK= . 010]
09979> R0025: C00302- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09980>       COMPUTE DUALHYD          1. 0 01: A4               1. 27         .212 No_date    28: 01    57. 38   n/ a      .000
09981>       Major System    /        1. 0 02: A4- MI             .00         .000 No_date    0: 00      .00   n/ a      .000
09982>       Minor System    \        1. 0 03: A4- MN           1. 27         .212 No_date    28: 01    57. 38   n/ a      .000
09983>          [ MxSt ol ke d= . 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
09984> R0025: C00303- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09985>       ADD HYD                  1. 0 02: A1- MI             .00         .000 No_date    0: 00      .00   n/ a      .000
09986>                          +     1. 0 02: A1- MN           15. 75        1. 818 No_date    27: 58    49. 57   n/ a      .000
09987>                          +     1. 0 02: corr1- MI          .00         .000 No_date    0: 00      .00   n/ a      .000
09988>                          +     1. 0 02: corr1- MN        15. 87        1. 818 No_date    28: 15    57. 37   n/ a      .000
09989>                          +     1. 0 02: corr2            12. 47         .276 No_date    29: 10    34. 14   n/ a      .000
09990>                          +     1. 0 02: B1                2. 77         .097 No_date    28: 09    21. 19   n/ a      .000
09991>                          +     1. 0 02: A4- MN            1. 27         .212 No_date    28: 01    57. 38   n/ a      .000
09992>                          SUM=  1. 0 01: MHI01           48. 13        3. 979 No_date    28: 02    46. 72   n/ a      .000
09993> R0025: C00304- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09994>       SAVE HYD                 1. 0 01: MHI01            48. 13        3. 979 No_date    28: 02    46. 72   n/ a      .000
09995>          fname : MHI01. 0025
09996>          remark: Total Flows at MHI01
09997> R0025: C00305- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
09998>       ROUTE PI PE              - >      1. 0 02: MHI01            48. 13        3. 979 No_date    28: 02    46. 72   n/ a      .000
09999> *     [ RDT= 1. 00]  out <-     1. 0 01: 101- 102         48. 13        3. 953 No_date    28: 05    46. 72   n/ a      .000
10000>          [ L/ S/ n=  368. /  . 540/ . 013]
10001>          [ Vmx=  3. 134: Dmx=  1. 114]
10002>          [ Di n=  1. 05: Dused=  1. 36]
10003> R0025: C00306- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10004>       ADD HYD                  1. 0 02: A2- MN           25. 50        1. 818 No_date    27: 54    49. 64   n/ a      .000
10005>                          +     1. 0 02: 101- 102         48. 13        3. 953 No_date    28: 05    46. 72   n/ a      .000
10006>                          SUM=  1. 0 01: MHI02            73. 63        5. 771 No_date    28: 05    47. 73   n/ a      .000
10007> R0025: C00307- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10008>       SAVE HYD                 1. 0 01: MHI02            73. 63        5. 771 No_date    28: 05    47. 73   n/ a      .000
10009>          fname : MHI02. 0025
10010>          remark: Total Flows at MHI02
10011> R0025: C00308- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10012>       CONTI NUOUS STANDHYD     1. 0 01: A5               1. 60         .279 No_date    28: 01    60. 02   . 807     .000
10013>          [ XI M= 71: TI M= . 71]
10014>          [ LOSS= 2 : CN= 75. 0]
10015>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10016>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 300. : MNI =. 013: SCI =    . 0]
10017>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
10018>          [ SM N= 33. 81:  SMX=225. 43:  SK= . 010]
10019> R0025: C00309- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10020>       ADD HYD                  1. 0 02: A4- MI             .00         .000 No_date    0: 00      .00   n/ a      .000
10021>                          +     1. 0 02: A5               1. 60         .279 No_date    28: 01    60. 02   n/ a      .000
10022>                          SUM=  1. 0 01: AST              1. 60         .279 No_date    28: 01    60. 02   n/ a      .000
10023> R0025: C00310- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10024>       COMPUTE DUALHYD          1. 0 01: AST              1. 60         .279 No_date    28: 01    60. 02   n/ a      .000
10025>       Major System    /        1. 0 02: A5- MI             .00         .000 No_date    0: 00      .00   n/ a      .000
10026>       Minor System    \        1. 0 03: A5- MN           1. 60         .279 No_date    28: 01    60. 02   n/ a      .000
10027>          [ MxSt ol ke d= . 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=      0. hrs]
10028> R0025: C00311- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10029>       ROUTE PI PE              - >      1. 0 02: MHI02            73. 63        5. 771 No_date    28: 05    47. 73   n/ a      .000
10030> *     [ RDT= 1. 00]  out <-     1. 0 01: 102- 103         73. 63        5. 682 No_date    28: 08    47. 73   n/ a      .000
10031>          [ L/ S/ n=  504. /  . 280/ . 013]
10032>          [ Vmx=  2. 688: Dmx=  1. 448]
10033>          [ Di n=  1. 50: Dused=  1. 176]
10034> R0025: C00312- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10035>       ADD HYD                  1. 0 02: 102- 103         73. 63        5. 682 No_date    28: 08    47. 73   n/ a      .000
10036>                          +     1. 0 02: A5- MN           1. 60         .279 No_date    28: 01    60. 02   n/ a      .000
10037>                          SUM=  1. 0 01: MHI03            75. 23        5. 850 No_date    28: 06    47. 99   n/ a      .000
10038> R0025: C00313- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10039>       SAVE HYD                 1. 0 01: MHI03            75. 23        5. 850 No_date    28: 06    47. 99   n/ a      .000
10040>          fname : MHI03. 0025
10041>          remark: Total Flows at MHI03
10042> R0025: C00314- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
10043>       ROUTE PI PE              - >      1. 0 02: MHI03            75. 23        5. 850 No_
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10099>        [ IaRECI mp=    4. 00: IaRECPer=    4. 00]
10100>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10101> R0025: C00324- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10102>        COMPUTE DUALHYD          1. 0 01: B3          5. 59          . 715 No_date   28: 02   49. 75   n/ a       . 000
10103>          Major System    /      1. 0 02: B3- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10104>          Minor System    \      1. 0 03: B3- MN         5. 59          . 459 No_date   27: 54   49. 80   n/ a       . 000
10105>        [ MJ Sys St o=. 1451E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10106> R0025: C00325- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10107>        ADD HYD                  1. 0 02: B3- MN         5. 59          . 459 No_date   27: 54   49. 80   n/ a       . 000
10108>                            +    1. 0 02: 315- 333      12. 31        1. 029 No_date   28: 24   49. 85   n/ a       . 000
10109>                            SUM= 1. 0 01: MI333         17. 90        1. 488 No_date   28: 24   49. 83   n/ a       . 000
10110> R0025: C00326- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10111>        SAVE HYD                 1. 0 01: MI333      17. 90        1. 488 No_date   28: 24   49. 83   n/ a       . 000
10112>          fname : MI333. 0025
10113>          remark: Total Flows at  MI333
10114> R0025: C00327- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10115>        ROUTE PI PE              - >  1. 0 02: MI333      17. 90        1. 488 No_date   28: 24   49. 83   n/ a       . 000
10116> *      [ RDT= 1. 00] out <-         1. 0 01: 333- 335   17. 90        1. 490 No_date   28: 26   49. 83   n/ a       . 000
10117>        [ L/ S/ n=  251. / . 100/ . 013]
10118>        [ Vmx= 1. 302: Dmx= 1. 057]
10119>        [ Di n= 1. 20: Dus ed= 1. 29]
10120> R0025: C00328- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10121>        ROUTE PI PE              - >  1. 0 02: 333- 335   17. 90        1. 485 No_date   28: 24   49. 83   n/ a       . 000
10122> *      [ RDT= 1. 00] out <-         1. 0 01: 335- 338   17. 90        1. 490 No_date   28: 26   49. 83   n/ a       . 000
10123>        [ L/ S/ n=  185. / . 100/ . 013]
10124>        [ Vmx= 1. 301: Dmx= 1. 056]
10125>        [ Di n= 1. 20: Dus ed= 1. 29]
10126> R0025: C00329- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10127>        ROUTE PI PE              - >  1. 0 02: 335- 338   17. 90        1. 490 No_date   28: 26   49. 83   n/ a       . 000
10128>        [ RDT= 1. 00] out <-         1. 0 01: 338- 340   17. 90        1. 456 No_date   28: 26   49. 83   n/ a       . 000
10129>        [ L/ S/ n=  233. / . 100/ . 013]
10130>        [ Vmx= 1. 331: Dmx=  . 985]
10131>        [ Di n= 1. 35: Dus ed= 1. 35]
10132> R0025: C00330- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10133>        CONTI NUOUS STANDHYD     1. 0 01: B4          7. 60          . 960 No_date   28: 02   49. 75   . 669      . 000
10134>          [ XI M= 41: TI M= . 54]
10135>          [ LOSS= 2 : CN= 75. 0]
10136>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10137>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  388. : MNI = . 013: SCI =    . 0]
10138>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10139>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10140> R0025: C00331- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10141>        COMPUTE DUALHYD          1. 0 01: B4          7. 60          . 960 No_date   28: 02   49. 75   n/ a       . 000
10142>          Major System    /      1. 0 02: B4- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10143>          Minor System    \      1. 0 03: B4- MN         7. 60          . 655 No_date   27: 55   50. 00   n/ a       . 000
10144>        [ MJ Sys St o=. 1611E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10145> R0025: C00332- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10146>        ADD HYD                  1. 0 02: 338- 340   17. 90        1. 456 No_date   28: 26   49. 83   n/ a       . 000
10147>                            +    1. 0 02: B4- MN         7. 60          . 655 No_date   27: 55   50. 00   n/ a       . 000
10148>                            SUM= 1. 0 01: MI340         25. 50        2. 104 No_date   28: 18   49. 88   n/ a       . 000
10149> R0025: C00333- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10150>        SAVE HYD                 1. 0 01: MI340      25. 50        2. 104 No_date   28: 18   49. 88   n/ a       . 000
10151>          fname : MI340. 0025
10152>          remark: Total Flows at  MI340
10153> R0025: C00334- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10154>        ROUTE PI PE              - >  1. 0 02: MI340      25. 50        2. 104 No_date   28: 18   49. 88   n/ a       . 000
10155>        [ RDT= 1. 00] out <-         1. 0 01: 340- 104   25. 50        2. 086 No_date   28: 18   49. 88   n/ a       . 000
10156>        [ L/ S/ n=  240. / . 150/ . 013]
10157>        [ Vmx= 1. 722: Dmx=  . 917]
10158>        [ Di n= 1. 65: Dus ed= 1. 65]
10159> R0025: C00335- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10160>        ADD HYD                  1. 0 02: 340- 104   25. 50        2. 086 No_date   28: 18   49. 88   n/ a       . 000
10161>                            +    1. 0 02: MI104      106. 27       9. 269 No_date   28: 06   50. 14   n/ a       . 000
10162>                            SUM= 1. 0 01: MI104T     131. 77      11. 233 No_date   28: 08   50. 09   n/ a       . 000
10163> R0025: C00336- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10164>        ROUTE PI PE              - >  1. 0 02: MI104T     131. 77      11. 233 No_date   28: 08   50. 09   n/ a       . 000
10165> *      [ RDT= 1. 00] out <-         1. 0 01: 104- 105   131. 77      10. 846 No_date   28: 08   50. 09   n/ a       . 000
10166>        [ L/ S/ n=  380. / . 100/ . 013]
10167>        [ Vmx= 2. 100: Dmx= 1. 992]
10168>        [ HGTH= 2. 35: WDTH= 2. 68]
10169> R0025: C00337- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10170>        CONTI NUOUS STANDHYD     1. 0 01: B5          2. 20          . 346 No_date   28: 00   53. 85   . 724      . 000
10171>          [ XI M= . 57: TI M= . 57]
10172>          [ LOSS= 2 : CN= 75. 0]
10173>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10174>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  187. : MNI = . 013: SCI =    . 0]
10175>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10176>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10177> R0025: C00338- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10178>        COMPUTE DUALHYD          1. 0 01: B5          2. 20          . 346 No_date   28: 00   53. 85   n/ a       . 000
10179>          Major System    /      1. 0 02: B5- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10180>          Minor System    \      1. 0 03: B5- MN         2. 20          . 260 No_date   27: 54   53. 87   n/ a       . 000
10181>        [ MJ Sys St o=. 3304E+02,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10182> R0025: C00339- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10183>        CONTI NUOUS STANDHYD     1. 0 01: A8           . 96           . 177 No_date   28: 00   60. 02   . 807      . 000
10184>          [ XI M= 6/ : TI M= . 71]
10185>          [ LOSS= 2 : CN= 75. 0]
10186>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10187>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  186. : MNI = . 013: SCI =    . 0]
10188>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10189>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10190> R0025: C00340- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10191>        ADD HYD                  1. 0 02: A6- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10192>                            +    1. 0 02: A8             . 96          . 177 No_date   28: 00   60. 02   n/ a       . 000
10193>                            SUM= 1. 0 01: A6T            . 96          . 177 No_date   28: 00   60. 02   n/ a       . 000
10194> R0025: C00341- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10195>        COMPUTE DUALHYD          1. 0 01: A6T            . 96          . 177 No_date   28: 00   60. 02   n/ a       . 000
10196>          Major System    /      1. 0 02: A6- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10197>          Minor System    \      1. 0 03: A6- MN         . 96          . 177 No_date   28: 00   60. 02   n/ a       . 000
10198>        [ MJ Sys St o=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10199> R0025: C00342- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10200>        ADD HYD                  1. 0 02: 104- 105   131. 77      10. 846 No_date   28: 08   50. 09   n/ a       . 000
10201>                            +    1. 0 02: B5- MN         2. 20          . 260 No_date   27: 54   53. 87   n/ a       . 000
10202>                            +    1. 0 02: A8- MN          . 96          . 177 No_date   28: 00   60. 02   n/ a       . 000
10203>                            +    1. 0 02: TODD_MN j       . 00          . 004 No_date   28: 00   53. 58   n/ a       . 000
10204>                            SUM= 1. 0 01: MI105      134. 93       11. 175 No_date   28: 08   50. 23   n/ a       . 000
10205> R0025: C00343- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10206>        SAVE HYD                 1. 0 01: MI105      134. 93       11. 175 No_date   28: 08   50. 23   n/ a       . 000
10207>          fname : MI105. 0025
10208>          remark: Total Flows at  MI105
10209> R0025: C00344- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10210> *      DI VERT HYD              - >  1. 0 01: A8- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10211>                  diverted <=       1. 0 02: A8- MI - JR      . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10212>                  diverted <=       1. 0 03: A8- MI - B6      . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10213> R0025: C00345- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10214>        DI VERT HYD              - >  1. 0 01: MI105      134. 93       11. 175 No_date   28: 08   50. 23   n/ a       . 000
10215>                  diverted <=       1. 0 02: MI105- JR    33. 95        8. 167 No_date   28: 08   50. 23   n/ a       . 000
10216>                  diverted <=       1. 0 03: MI105- B6   100. 98        3. 008 No_date   28: 08   50. 23   n/ a       . 000
10217> R0025: C00346- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10218>        CONTI NUOUS STANDHYD     1. 0 01: B7          7. 19          . 975 No_date   28: 01   49. 75   . 669      . 000
10219>          [ XI M= . 41: TI M= . 54]
10220>          [ LOSS= 2 : CN= 75. 0]
10221>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10222>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  211. : MNI = . 013: SCI =    . 0]
10223>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10224>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10225> R0025: C00347- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10226>        ADD HYD                  1. 0 02: B4- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10227>                            +    1. 0 02: B7             7. 19          . 975 No_date   28: 01   49. 75   n/ a       . 000
10228>                            SUM= 1. 0 01: B7- B4M        7. 19          . 975 No_date   28: 01   49. 75   n/ a       . 000
10229> R0025: C00348- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10230>        COMPUTE DUALHYD          1. 0 01: B7- B4M        7. 19          . 975 No_date   28: 01   49. 75   n/ a       . 000
10231>          Major System    /      1. 0 02: B7R- MI        . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10232>          Minor System    \      1. 0 03: B7R- MN        7. 19          . 629 No_date   27: 53   50. 01   n/ a       . 000
10233>        [ MJ Sys St o=. 1702E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10234> R0025: C00349- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10235>        ROUTE PI PE              - >  1. 0 02: B7R- MN        7. 19          . 629 No_date   27: 53   50. 01   n/ a       . 000
10236> *      [ RDT= 1. 00] out <-         1. 0 01: 360- 106A   7. 19          . 629 No_date   28: 21   50. 01   n/ a       . 000
10237>        [ L/ S/ n=  167. / . 100/ . 013]
10238>        [ Vmx= 1. 089: Dmx=  . 665]
10239>        [ Di n= 1. 05: Dus ed= 1. 05]
10240> R0025: C00350- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10241>        CONTI NUOUS STANDHYD     1. 0 01: B6          3. 29          . 465 No_date   28: 00   49. 75   . 669      . 000
10242>          [ XI M= . 41: TI M= . 54]
10243>          [ LOSS= 2 : CN= 75. 0]
10244>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10245>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  148. : MNI = . 013: SCI =    . 0]
10246>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10247>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10248> R0025: C00351- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10249>        COMPUTE DUALHYD          1. 0 01: B6          3. 29          . 465 No_date   28: 00   49. 75   n/ a       . 000
10250>          Major System    /      1. 0 02: B6- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10251>          Minor System    \      1. 0 03: B6- MN         3. 29          . 064 No_date   27: 34   49. 75   n/ a       . 000
10252>        [ MJ Sys St o=. 5165E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10253> R0025: C00352- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10254>        CONTI NUOUS STANDHYD     1. 0 01: EX- LAND       32. 50        4. 063 No_date   28: 02   50. 08   . 673      . 000
10255>          [ XI M= . 50: TI M= . 50]
10256>          [ LOSS= 2 : CN= 74. 0]
10257>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10258>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  465. : MNI = . 013: SCI =    . 0]
10259>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10260>        [ SMN= 36. 67: SMXx=244. 49: SKx= . 010]
10261> R0025: C00353- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10262>        COMPUTE DUALHYD          1. 0 01: EX- LAND       32. 50        4. 063 No_date   28: 02   50. 08   n/ a       . 000
10263>          Major System    /      1. 0 02: EX- LAND- MI    . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10264>          Minor System    \      1. 0 03: EX- LAND- MN   32. 50        2. 275 No_date   27: 52   50. 26   n/ a       . 000
10265>        [ MJ Sys St o=. 1224E+04,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10266> R0025: C00354- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10267>        ADD HYD                  1. 0 02: B7R- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10268>                            +    1. 0 02: EX- LAND- MI    . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10269>                            +    1. 0 02: B5- MI          . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10270>                            +    1. 0 02: B6- MI          . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10271>                            +    1. 0 02: B6- MN         3. 29          . 064 No_date   27: 34   49. 75   n/ a       . 000
10272>                            +    1. 0 02: A8- MI - B6     . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10273>                            SUM= 1. 0 01: B6- B7EXMI     3. 29          . 064 No_date   27: 34   49. 75   n/ a       . 000
10274> R0025: C00355- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10275>        COMPUTE DUALHYD          1. 0 01: B6- B7EXMI     3. 29          . 064 No_date   27: 34   49. 75   n/ a       . 000
10276>          Major System    /      1. 0 02: B6R- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10277>          Minor System    \      1. 0 03: B6R- MN        3. 29          . 064 No_date   27: 34   49. 75   n/ a       . 000
10278>        [ MJ Sys St o=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10279> R0025: C00356- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10280>        ROUTE PI PE              - >  1. 0 02: MI105- B6   100. 98        3. 008 No_date   28: 08   50. 23   n/ a       . 000
10281>        [ RDT= 1. 00] out <-         1. 0 01: 105- 106A   100. 98        3. 018 No_date   28: 02   50. 23   n/ a       . 000
10282>        [ L/ S/ n=  208. / . 100/ . 013]
10283>        [ Vmx= 1. 597: Dmx= 1. 249]
10284>        [ Di n= 1. 80: Dus ed= 1. 80]
10285> R0025: C00357- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10286>        ADD HYD                  1. 0 02: 360- 106A   7. 19          . 629 No_date   28: 21   50. 01   n/ a       . 000
10287>                            +    1. 0 02: 105- 106A   100. 98       3. 018 No_date   28: 02   50. 23   n/ a       . 000
10288>                            +    1. 0 02: B6R- MI        3. 29          . 064 No_date   27: 34   49. 75   n/ a       . 000
10289>                            +    1. 0 02: B6R- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10290>                            SUM= 1. 0 01: MI106A     111. 46       3. 702 No_date   28: 02   50. 20   n/ a       . 000
10291> R0025: C00358- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10292>        SAVE HYD                 1. 0 01: MI106A     111. 46       3. 702 No_date   28: 02   50. 20   n/ a       . 000
10293>          fname : MI106A. 0025
10294>          remark: Total Flows at  MI106A
10295> R0025: C00359- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10296>        ROUTE PI PE              - >  1. 0 02: MI106A     111. 46       3. 702 No_date   28: 02   50. 20   n/ a       . 000
10297> *      [ RDT= 1. 00] out <-         1. 0 01: 106A- 106   111. 46       3. 699 No_date   28: 16   50. 20   n/ a       . 000
10298>        [ L/ S/ n=  190. / . 100/ . 013]
10299>        [ Vmx= 1. 635: Dmx= 1. 487]
10300>        [ Di n= 1. 80: Dus ed= 1. 81]
10301> R0025: C00360- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10302>        CONTI NUOUS STANDHYD     1. 0 01: A9          2. 44          . 433 No_date   28: 00   60. 02   . 807      . 000
10303>          [ XI M= . 71: TI M= . 71]
10304>          [ LOSS= 2 : CN= 75. 0]
10305>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10306>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  262. : MNI = . 013: SCI =    . 0]
10307>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10308>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10309> R0025: C00361- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10310>        COMPUTE DUALHYD          1. 0 01: A9          2. 44          . 433 No_date   28: 00   60. 02   n/ a       . 000
10311>          Major System    /      1. 0 02: A9- MI         . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10312>          Minor System    \      1. 0 03: A9- MN         2. 44          . 433 No_date   28: 00   60. 02   n/ a       . 000
10313> R0025: C00362- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10314>        ADD HYD                  1. 0 02: 106A- 106   111. 46       3. 699 No_date   28: 16   50. 20   n/ a       . 000
10315>                            +    1. 0 02: A9- MN         2. 44          . 433 No_date   28: 00   60. 02   n/ a       . 000
10316>                            SUM= 1. 0 01: MI106      113. 90       4. 090 No_date   28: 01   50. 41   n/ a       . 000
10317> R0025: C00363- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10318>        SAVE HYD                 1. 0 01: MI106      113. 90       4. 090 No_date   28: 01   50. 41   n/ a       . 000
10319>          fname : MI106. 0025
10320>          remark: Total Flows at  MI106
10321> R0025: C00364- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10322>        ROUTE PI PE              - >  1. 0 02: MI106      113. 90       4. 090 No_date   28: 01   50. 41   n/ a       . 000
10323> *      [ RDT= 1. 00] out <-         1. 0 01: 106- 107   113. 90       4. 067 No_date   28: 03   50. 41   n/ a       . 000
10324>        [ L/ S/ n=  123. / . 100/ . 013]
10325>        [ Vmx= 1. 676: Dmx= 1. 544]
10326>        [ Di n= 1. 80: Dus ed= 1. 88]
10327> R0025: C00365- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10328>        CONTI NUOUS STANDHYD     1. 0 01: A10         4. 14          . 526 No_date   28: 01   46. 81   . 629      . 000
10329>          [ XI M= . 35: TI M= . 47]
10330>          [ LOSS= 2 : CN= 75. 0]
10331>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10332>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI = . 013: SCI =    . 0]
10333>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10334>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10335> R0025: C00366- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10336>        COMPUTE DUALHYD          1. 0 01: A10         4. 14          . 526 No_date   28: 01   46. 81   n/ a       . 000
10337>          Major System    /      1. 0 02: A10- MI        . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10338>          Minor System    \      1. 0 03: A10- MN        4. 14          . 310 No_date   27: 52   46. 90   n/ a       . 000
10339>        [ MJ Sys St o=. 1196E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10340> R0025: C00367- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10341>        CONTI NUOUS STANDHYD     1. 0 01: A11        10. 61         1. 511 No_date   28: 01   54. 09   . 727      . 000
10342>          [ XI M= . 53: TI M= . 62]
10343>          [ LOSS= 2 : CN= 75. 0]
10344>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10345>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI = . 013: SCI =    . 0]
10346>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10347>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10348> R0025: C00368- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10349>        COMPUTE DUALHYD          1. 0 01: A11        10. 61         1. 511 No_date   28: 01   54. 09   n/ a       . 000
10350>          Major System    /      1. 0 02: A11- MI        . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10351>          Minor System    \      1. 0 03: A11- MN        10. 61         . 993 No_date   27: 54   54. 21   n/ a       . 000
10352>        [ MJ Sys St o=. 2791E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10353> R0025: C00369- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10354>        ADD HYD                  1. 0 02: 106- 107   113. 90       4. 067 No_date   28: 03   50. 41   n/ a       . 000
10355>                            +    1. 0 02: A10- MN        4. 14          . 310 No_date   27: 52   46. 90   n/ a       . 000
10356>                            +    1. 0 02: A11- MN        10. 61         . 993 No_date   27: 54   54. 21   n/ a       . 000
10357>                            SUM= 1. 0 01: MI107      128. 65       5. 370 No_date   28: 03   50. 61   n/ a       . 000
10358> R0025: C00370- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10359>        SAVE HYD                 1. 0 01: MI107      128. 65       5. 370 No_date   28: 03   50. 61   n/ a       . 000
10360>          fname : MI107. 0025
10361>          remark: Total Flows at  MI107
10362> R0025: C00371- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10363>        ROUTE PI PE              - >  1. 0 02: MI107      128. 65       5. 370 No_date   28: 03   50. 61   n/ a       . 000
10364> *      [ RDT= 1. 00] out <-         1. 0 01: 107- 119   128. 65       5. 374 No_date   28: 04   50. 61   n/ a       . 000
10365>        [ L/ S/ n=  114. / . 120/ . 013]
10366>        [ Vmx= 1. 922: Dmx= 1. 653]
10367>        [ Di n= 1. 80: Dus ed= 2. 01]
10368> R0025: C00372- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10369>        ROUTE PI PE              - >  1. 0 02: 107- 119   128. 65       5. 374 No_date   28: 04   50. 61   n/ a       . 000
10370> *      [ RDT= 1. 00] out <-         1. 0 01: 119- 108   128. 65       5. 354 No_date   28: 04   50. 61   n/ a       . 000
10371>        [ L/ S/ n=  66. / . 120/ . 013]
10372>        [ Vmx= 1. 922: Dmx= 1. 653]
10373>        [ Di n= 1. 80: Dus ed= 2. 01]
10374> R0025: C00373- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10375>        CONTI NUOUS STANDHYD     1. 0 01: A12         12. 29         1. 704 No_date   28: 01   49. 75   . 669      . 000
10376>          [ XI M= . 41: TI M= . 54]
10377>          [ LOSS= 2 : CN= 75. 0]
10378>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10379>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI = . 013: SCI =    . 0]
10380>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10381>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10382> R0025: C00374- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10383>        COMPUTE DUALHYD          1. 0 01: A12         12. 29         1. 704 No_date   28: 01   49. 75   n/ a       . 000
10384>          Major System    /      1. 0 02: A12- MI        . 00          . 000 No_date   0: 00     . 00   n/ a       . 000
10385>          Minor System    \      1. 0 03: A12- MN        12. 29         1. 029 No_date   27: 52   49. 91   n/ a       . 000
10386>        [ MJ Sys St o=. 3558E+03,  Tot Or Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s]
10387> R0025: C00375- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10388>        CONTI NUOUS STANDHYD     1. 0 01: A13          2. 59          . 435 No_date   28: 01   60. 02   . 807      . 000
10389>          [ XI M= . 71: TI M= . 71]
10390>          [ LOSS= 2 : CN= 75. 0]
10391>          [ Pervi ous      area: I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     . 0]
10392>          [ I mpervi ous   area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI = . 013: SCI =    . 0]
10393>        [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
10394>        [ SMN= 33. 81: SMXx=225. 43: SKx= . 010]
10395> R0025: C00376- ---------- DTmi n-I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - - DWFcms
10396>        COMPUTE DUALHYD          1. 0 01: A13          2. 59          . 435 No_date   28: 01   60. 02   n/ a       . 
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10473> #     - To SWM Facility north of the Jock
10474> #     - Primarily residental development
10475> #*************************************************************************
10476> RR025: C00388-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10477>       CONTI NUOUS STANDHYD      1. 0 01: MI LLS          175. 99     15. 275 No_date    28: 07    44. 62 . 600      . 000
10478>        [ XI M%= . 38: TI M%= . 38]
10479>        [ LOSS= 2 : CN= 74. 0]
10480>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10481>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1118. : MNI =. 013: SCI =    . 0]
10482>        [ I aREC] mp=   4. 00: I aREC per=   4. 00]
10483>        [ SMI N= 36. 67:  SMXs=244. 49:  SKs= . 010]
10484> #*************************************************************************
10485> #     Chapman Mills SWM Pond
10486> #     - Rating curve obtained from CCL hydraulic modeling
10487> #*************************************************************************
10488> RR025: C00389-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10489>       ROUTE RESERVOI R ->      1. 0 02: MI LLS          175. 99     15. 275 No_date    28: 07    44. 62   n/ a      . 000
10490>                        out <=     1. 0 01: MI LL_P         162. 60      4. 050 No_date    28: 16    44. 62   n/ a      . 000
10491>                  overflow <=      1. 0 03: MI L- OV         13. 39      8. 160 No_date    28: 16    44. 62   n/ a      . 000
10492>        [ MxSt ol ked=. 2310E+01   m3,  Tot Ovf Vol =. 5973E+00   m3,  N- Ovf =     2,  Tot Dur Ovf =     1. hrs]
10493> RR025: C00390-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10494>       ADD HYD                  1. 0 02: N_MI          55018. 86   104. 271 No_date    38: 54    29. 28   n/ a      . 000
10495>                            +     1. 0 02: MI L- OV         13. 39      8. 160 No_date    28: 16    44. 62   n/ a      . 000
10496>                            +     1. 0 02: MI LL_P         162. 60      4. 050 No_date    28: 16    44. 62   n/ a      . 000
10497>                          SUM=    1. 0 01: SN_MI         55194. 86   104. 675 No_date    38: 54    29. 33   n/ a      . 000
10498> RR025: C00391-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10499>       SAVE HYD                 1. 0 01: SN_MI         55194. 86   104. 675 No_date    38: 54    29. 33   n/ a      . 000
10500>        fname : SN_MI . 0025
10501>        remark: Total Flows at Jockvale Road
10502> #
10503> # Hydrograph from Jockvale Road routed to Heart's Desire
10504> # Channel X- Section obtained from RVCA Hydraulic Model - Station 689
10505> #
10506> RR025: C00392-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10507>       ROUTE CHANNEL    ->      1. 0 02: SN_MI         55194. 86   104. 675 No_date    38: 54    29. 33   n/ a      . 000
10508>        [ RDT= 1. 00]  out <-      1. 0 01: N_DE          55194. 86   104. 438 No_date    39: 12    29. 33   n/ a      . 000
10509>        [ L/ S/ n= 1962. / . 223/ . 045]
10510>        [ Vmax= 1. 484: Dmax= 2. 267]
10511> #*************************************************************************
10512> #     Catchment DESI RE
10513> #     - To Jock River (north of the Jock)
10514> #     - Rural-estate subdivision (Heart's Desire Community)
10515> #*************************************************************************
10516> RR025: C00393-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10517>       CONTI NUOUS STANDHYD      1. 0 01: DESI RE          23. 78      2. 161 No_date    28: 03    40. 77 . 548      . 000
10518>        [ XI M%= . 25: TI M%= . 25]
10519>        [ LOSS= 2 : CN= 77. 0]
10520>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10521>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  400. : MNI =. 013: SCI =    . 0]
10522>        [ I aREC] mp=   4. 00: I aREC per=   4. 00]
10523>        [ SMI N= 31. 15:  SMXs=207. 66:  SKs= . 010]
10524> #*************************************************************************
10525> #     Catchment JOCKVA
10526> #     - To Jockvale SWM Facility
10527> #     - Residential development & golf course
10528> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
10529> #       JOCKVA area has been 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
10530> #*************************************************************************
10531> RR025: C00394-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10532>       CONTI NUOUS STANDHYD      1. 0 01: JOCKVA          225. 13     21. 797 No_date    28: 07    50. 08 . 673      . 000
10533>        [ XI M%= . 50: TI M%= . 50]
10534>        [ LOSS= 2 : CN= 74. 0]
10535>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10536>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1311. : MNI =. 013: SCI =    . 0]
10537>        [ I aREC] mp=   4. 00: I aREC per=   4. 00]
10538>        [ SMI N= 36. 67:  SMXs=244. 49:  SKs= . 010]
10539> RR025: C00395-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10540>       ADD HYD                  1. 0 02: EX- LAND- MN       32. 50      2. 275 No_date    27: 52    50. 26   n/ a      . 000
10541>                            +     1. 0 02: JOCKVA          225. 13     21. 797 No_date    28: 07    50. 08   n/ a      . 000
10542>                            +     1. 0 02: B2- MI            . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
10543>                            +     1. 0 02: B3- MI            . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
10544>                          SUM=    1. 0 01: JOCKVA- TO       257. 63     24. 072 No_date    28: 07    50. 10   n/ a      . 000
10545> RR025: C00396-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10546>       SAVE HYD                 1. 0 01: JOCKVA- TO       257. 63     24. 072 No_date    28: 07    50. 10   n/ a      . 000
10547>        fname : JOCKVA- TO. 0025
10548>        remark: Total Flows at KB first pond
10549> #*************************************************************************
10550> #     Jockvale SWM Facility
10551> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
10552> #*************************************************************************
10553> RR025: C00397-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10554>       ROUTE RESERVOI R ->      1. 0 02: JOCKVA- TO       257. 63     24. 072 No_date    28: 07    50. 10   n/ a      . 000
10555>                        out <=     1. 0 03: JOCK_P          257. 63      9. 145 No_date    28: 37    50. 10   n/ a      . 000
10556>                  overflow <=      1. 0 03: JO- OVF            . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
10557>        [ MxSt ol ked=. 5425E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
10558> RR025: C00398-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10559>       ADD HYD                  1. 0 02: N_DE          55194. 86   104. 438 No_date    39: 12    29. 33   n/ a      . 000
10560>                            +     1. 0 02: DESI RE          23. 78      2. 161 No_date    28: 03    40. 77   n/ a      . 000
10561>                            +     1. 0 02: JO- OVF            . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
10562>                            +     1. 0 02: JOCK_P          257. 63      9. 145 No_date    28: 37    50. 10   n/ a      . 000
10563>                          SUM=    1. 0 01: SN_DE         55476. 27   105. 082 No_date    39: 11    29. 43   n/ a      . 000
10564> RR025: C00399-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10565>       SAVE HYD                 1. 0 01: SN_DE         55476. 27   105. 082 No_date    39: 11    29. 43   n/ a      . 000
10566>        fname : SN_DE. 0025
10567>        remark: Total Flows at Heart's Desire
10568> #
10569> # Hydrograph from Heart's Desire routed to Rideau River
10570> # Channel X- Section obtained from RVCA Hydraulic Model - Station 0
10571> #
10572> RR025: C00400-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10573>       ROUTE CHANNEL    ->      1. 0 02: SN_DE         55476. 27   105. 082 No_date    39: 11    29. 43   n/ a      . 000
10574>        [ RDT= 1. 00]  out <-      1. 0 01: NI            55476. 27   105. 073 No_date    39: 15    29. 43   n/ a      . 000
10575>        [ L/ S/ n=  563. / . 967/ . 045]
10576>        [ Vmax= 1. 944: Dmax= 1. 136]
10577> #*************************************************************************
10578> #     Catchment S- 2
10579> #     - To Jock River (north and south)
10580> #     - Undeveloped floodplain and river
10581> #*************************************************************************
10582> RR025: C00401-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10583>       CONTI NUOUS NASHYD        1. 0 01: S- 2            102. 94      3. 971 No_date    28: 20    30. 13 . 405      . 000
10584>        [ CN= 72. 0:  N= 3. 00:  Tp=    . 40]
10585>        [ I aREC= 4. 00:  SMI N= 39. 75:  SMXs=264. 99:  SKs= . 010]
10586>        [ I nterEventTime=  12. 00]
10587> RR025: C00402-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10588>       ADD HYD                  1. 0 02: NI            55476. 27   105. 073 No_date    39: 15    29. 43   n/ a      . 000
10589>                            +     1. 0 02: S- 2            102. 94      3. 971 No_date    28: 20    30. 13   n/ a      . 000
10590>                          SUM=    1. 0 01: SN_NI         55579. 21   105. 274 No_date    39: 15    29. 43   n/ a      . 000
10591> RR025: C00403-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
10592>       SAVE HYD                 1. 0 01: SN_NI         55579. 21   105. 274 No_date    39: 15    29. 43   n/ a      . 000
10593>        fname : SN_NI . 0025
10594>        remark: Total Flows at Rideau River
10595> ##############################################################################
10596>  ** END OF RUN :    49
10597>
10598> ************************************************************************************************************
10599>
10600>
10601>
10602>
10603>
10604>  RUN#: COMMAND#
10605> RR050: C00001-----------------------------------------------------------------------------------------------
10606>       START                    [ TZERO =      . 00 hrs on          0]
10607>        [ METOUT=   2      (1= imperial, 2= metric output)]
10608>        [ NSTORM=   1 ]
10609>        [ NRUN  = 0050 ]
10610> #*************************************************************************
10611> #  SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / I NPUT DATA FI LE
10612> #*************************************************************************
10613> #  Project Name: [ Jock River]      Project Number: [ 1474- 16]
10614> #  Date        : [ 04- 03- 2021
10615> #  Modeller    : [ MM]
10616> #  Company     : [ JFSA Inc.
10617> #  License #   :  2549237
10618> #*************************************************************************
10619> # CALI BRATI ON OF SUMMER MODEL PARAMETERS
10620> # USI NG CONTI NUOUS SI MULATI ONS
10621> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
10622> # Use data collected from May 1st to July 14, 2003
10623> # 2020- 11- 30 change TMI STO in COMPUTE DUALHYD ( TMI STO = 0. 1 instead of 0. 0001)
10624> # 2020- 12- 01 correct pond curve values
10625> # 2020- 12- 01 change W_CLAR_BRAZ XI M* to 0. 55,  SLPI =[ 0. 5]( % ( impervious slope), and LGI up to 700m
10626> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 2462 ( NHYDout =[ "N_TOT" ], NHYDi n=[ "SN_TOT" ]) from 0. 033 % ( as per S
10627> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 5002 ( NHYDout =[ "N_WC" ], NHYDi n=[ "SN_CE" ]) from 0. 01 % ( as per St
10628> # ------------------------------------------------------------------------------------------------------------
10629> RR050: C00002-----------------------------------------------------------------------------------------------
10630>       READ STORM               [ Filename = storm001
10631>        Comment  = Pluie SCS de 24 hres 1: 50 ans pour Ottawa CDA
10632>        [ SDT= 10. 00: SDUR=   24. 00: PTOT=   81. 51]
10633> RR050: C00003-----------------------------------------------------------------------------------------------
10634>       MODI FY STORM            [ REACT=   1. 00: TSHI FT= 960. 00 min]
10635>        [ SDT= 10. 00: SDUR=   40. 00: PTOT=   81. 51]
10636> RR050: C00004-----------------------------------------------------------------------------------------------
10637>       DEFAULT VALUES           [ Filename = T: \ PROJ\ 1474- 16\ Design\ 20201026- QuantityControlAnalysis\ SWMHYMO\ SMR- Model\ updated3\ CitiGate. DEF
10638>        I CASEdv   = 1 (read and print data)
10639>        FileTitle= File comment: [ Based on various calibration exercises in Onta
10640>                   THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
10641>        Horton's infiltration equation parameters:
10642>        [ Fo= 76. 20 mm/ hr]  [ Fc=13. 20 mm/ hr]  [ DCAY= 4. 14 / hr]  [ F=   . 00 mm]
10643>        Parameters for PERVIOUS surfaces in STANDHYD:
10644>        Parameters for I MPERVIOUS surfaces in STANDHYD:
10645>        Horton's infiltration equation parameters:
10646>        [ Fo= 76. 20 mm/ hr]  [ Fc=13. 20 mm/ hr]  [ DCAY= 4. 14 / hr]  [ F=   . 00 mm]
10647>        Parameters for PERVIOUS surfaces in STANDHYD:
10648>        [ I Aper=   4. 67 mm]  [ LGP=50. 00 m]  [ MNP=. 250]
10649>        Parameters for I MPERVIOUS surfaces in STANDHYD:
10650>        [ I Aimp=   1. 57 mm]  [ CLI =  1. 50]    [ MNI =. 013]
10651>        Parameters used in NASHYD:
10652>        [ Ia=       4. 67 mm]  [ N= 3. 00]
10653>        Average monthly Pan Evaporation data in     (mm)
10654>  JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
10655>  . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
10656>        Average monthly Potential Evapotranspiration in     (mm)
10657>  JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
10658>  . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
10659> RR050: C00005-----------------------------------------------------------------------------------------------
10660>       COMPUTE API              [ APIini = 50. 00:  APIkdy= . 8500:  APIkdt= . 9989]
10661>        [ APImax=113. 33:  APIavg= 67. 14:  APImin= 44. 87]
10662> #
10663> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10664> # of 1. 32
10665> RR050: C00006-----------------------------------------------------------------------------------------------
10666>       CONTI NUOUS NASHYD        1. 0 01: JR_HW          3680. 00    18. 440 No_date    36: 55    30. 33 . 372      . 000
10667>        [ CN= 64. 0:  N= 3. 00:  Tp=   7. 13]
10668>        [ I aREC= 4. 00:  SMI N= 57. 05:  SMXs=380. 32:  SKs= . 010]
10669>        [ I nterEventTime=  12. 00]
10670> #
10671> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10672> # of 1. 32
10673> RR050: C00007-----------------------------------------------------------------------------------------------
10674>       CONTI NUOUS NASHYD        1. 0 01: JR_GWM         3074. 00     8. 912 No_date    39: 59    24. 31 . 298      . 000
10675>        [ CN= 55. 0:  N= 3. 00:  Tp=11. 33]
10676>        [ I aREC= 4. 00:  SMI N= 83. 24:  SMXs=554. 96:  SKs= . 010]
10677>        [ I nterEventTime=  12. 00]
10678> RR050: C00009-----------------------------------------------------------------------------------------------
10679>       CONTI NUOUS NASHYD        1. 0 01: JR_ASH         1781. 00    16. 834 No_date    32: 39    36. 85 . 452      . 000
10680>        [ CN= 72. 0:  N= 3. 00:  Tp=   3. 91]
10681>        [ I aREC= 4. 00:  SMI N= 39. 75:  SMXs=264. 99:  SKs= . 010]
10682>        [ I nterEventTime=  12. 00]
10683> RR050: C00010-----------------------------------------------------------------------------------------------
10684>       CONTI NUOUS NASHYD        1. 0 01: SW_11           500. 00     9. 061 No_date    29: 21    31. 73 . 389      . 000
10685>        [ CN= 66. 0:  N= 3. 00:  Tp=   1. 24]
10686>        [ I aREC= 4. 00:  SMI N= 52. 62:  SMXs=350. 79:  SKs= . 010]
10687>        [ I nterEventTime=  12. 00]
10688> #
10689> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10690> # of 1. 80
10691> RR050: C00011-----------------------------------------------------------------------------------------------
10692>       CONTI NUOUS NASHYD        1. 0 01: NN_CK          1917. 00    12. 342 No_date    34: 26    31. 73 . 389      . 000
10693>        [ CN= 66. 0:  N= 3. 00:  Tp=   5. 29]
10694>        [ I aREC= 4. 00:  SMI N= 52. 62:  SMXs=350. 79:  SKs= . 010]
10695>        [ I nterEventTime=  12. 00]
10696> #
10697> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10698> # of 1. 80
10699> RR050: C00012-----------------------------------------------------------------------------------------------
10700>       CONTI NUOUS NASHYD        1. 0 01: SW_10          5666. 00    32. 402 No_date    37: 52    36. 85 . 452      . 000
10701>        [ CN= 72. 0:  N= 3. 00:  Tp=   . 90]
10702>        [ I aREC= 4. 00:  SMI N= 39. 75:  SMXs=264. 99:  SKs= . 010]
10703>        [ I nterEventTime=  12. 00]
10704> #
10705> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10706> # of 1. 52
10707> RR050: C00013-----------------------------------------------------------------------------------------------
10708>       CONTI NUOUS NASHYD        1. 0 01: SW_9           1132. 00    14. 039 No_date    30: 53    35. 35 . 434      . 000
10709>        [ CN= 70. 0:  N= 3. 00:  Tp=   2. 51]
10710>        [ I aREC= 4. 00:  SMI N= 43. 07:  SMXs=287. 10:  SKs= . 010]
10711>        [ I nterEventTime=  12. 00]
10712> #
10713> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10714> # of 1. 75
10715> RR050: C00014-----------------------------------------------------------------------------------------------
10716>       CONTI NUOUS NASHYD        1. 0 01: KG_CK          8376. 00    31. 024 No_date    39: 59    31. 73 . 389      . 000
10717>        [ CN= 66. 0:  N= 3. 00:  Tp=11. 66]
10718>        [ I aREC= 4. 00:  SMI N= 52. 62:  SMXs=350. 79:  SKs= . 010]
10719>        [ I nterEventTime=  12. 00]
10720> #
10721> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10722> # of 1. 68
10723> RR050: C00015-----------------------------------------------------------------------------------------------
10724>       CONTI NUOUS NASHYD        1. 0 01: SW_8           1131. 00     2. 740 No_date    28: 57    29. 64 . 364      . 000
10725>        [ CN= 62. 0:  N= 3. 00:  Tp=11. 32]
10726>        [ I aREC= 4. 00:  SMI N= 61. 90:  SMXs=412. 66:  SKs= . 010]
10727>        [ I nterEventTime=  12. 00]
10728> #
10729> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10730> # of 1. 82
10731> RR050: C00016-----------------------------------------------------------------------------------------------
10732>       CONTI NUOUS NASHYD        1. 0 01: SW_8           131. 00     2. 740 No_date    28: 57    29. 64 . 364      . 000
10733>        [ CN= 63. 0:  N= 3. 00:  Tp=   . 90]
10734>        [ I aREC= 4. 00:  SMI N= 59. 42:  SMXs=396. 11:  SKs= . 010]
10735>        [ I nterEventTime=  12. 00]
10736> #
10737> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10738> # of 1. 80
10739> RR050: C00017-----------------------------------------------------------------------------------------------
10740>       CONTI NUOUS NASHYD        1. 0 01: HB_DR          3854. 00    18. 180 No_date    38: 32    31. 73 . 389      . 000
10741>        [ CN= 66. 0:  N= 3. 00:  Tp=   8. 42]
10742>        [ I aREC= 4. 00:  SMI N= 52. 62:  SMXs=350. 79:  SKs= . 010]
10743>        [ I nterEventTime=  12. 00]
10744> #
10745> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10746> # of 1. 82
10747> RR050: C00018-----------------------------------------------------------------------------------------------
10748>       CONTI NUOUS NASHYD        1. 0 01: SW_7           3197. 00    13. 937 No_date    36: 23    25. 61 . 314      . 000
10749>        [ CN= 57. 0:  N= 3. 00:  Tp=   6. 65]
10750>        [ I aREC= 4. 00:  SMI N= 76. 32:  SMXs=508. 81:  SKs= . 010]
10751>        [ I nterEventTime=  12. 00]
10752> #
10753> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10754> # of 1. 75
10755> # of 1. 82
10756> RR050: C00019-----------------------------------------------------------------------------------------------
10757>       CONTI NUOUS NASHYD        1. 0 01: SW_6           165. 00     1. 285 No_date    33: 02    32. 44 . 398      . 000
10758>        [ CN= 67. 0:  N= 3. 00:  Tp=   4. 18]
10759>        [ I aREC= 4. 00:  SMI N= 50. 55:  SMXs=336. 97:  SKs= . 010]
10760>        [ I nterEventTime=  12. 00]
10761> #
10762> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10763> # of 1. 67
10764> RR050: C00020-----------------------------------------------------------------------------------------------
10765>       CONTI NUOUS NASHYD        1. 0 01: VG_DR          1332. 00     9. 332 No_date    35: 12    36. 85 . 452      . 000
10766>        [ CN= 72. 0:  N= 3. 00:  Tp=   5. 95]
10767>        [ I aREC= 4. 00:  SMI N= 39. 75:  SMXs=264. 99:  SKs= . 010]
10768>        [ I nterEventTime=  12. 00]
10769> #
10770> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10771> # of 1. 67
10772> RR050: C00021-----------------------------------------------------------------------------------------------
10773>       CONTI NUOUS NASHYD        1. 0 01: SW_5           224. 00     8. 187 No_date    28: 45    41. 51 . 509      . 000
10774>        [ CN= 77. 0:  N= 3. 00:  Tp=    . 75]
10775>        [ I aREC= 4. 00:  SMI N= 31. 15:  SMXs=207. 66:  SKs= . 010]
10776>        [ I nterEventTime=  12. 00]
10777> #
10778> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10779> # of 1. 20
10780> RR050: C00022-----------------------------------------------------------------------------------------------
10781>       CONTI NUOUS NASHYD        1. 0 01: FL_CK          4945. 00    44. 623 No_date    33: 18    38. 37 . 471      . 000
10782>        [ CN= 74. 0:  N= 3. 00:  Tp=   4. 45]
10783>        [ I aREC= 4. 00:  SMI N= 36. 67:  SMXs=244. 49:  SKs= . 010]
10784>        [ I nterEventTime=  12. 00]
10785> RR050: C00023-----------------------------------------------------------------------------------------------
10786>       CONTI NUOUS NASHYD        1. 0 01: SW_5A2           20. 00       . 943 No_date    28: 35    45. 60 . 560      . 000
10787>        [ CN= 81. 0:  N= 3. 00:  Tp=    . 62]
10788>        [ I aREC= 4. 00:  SMI N= 25. 21:  SMXs=168. 09:  SKs= . 010]
10789>        [ I nterEventTime=  12. 00]
10790> RR050: C00026-----------------------------------------------------------------------------------------------
10791>       CONTI NUOUS NASHYD        1. 0 01: LM_CK          1021. 00    17. 059 No_date    30: 46    44. 77 . 549      . 000
10792>        [ CN= 80. 0:  N= 3. 00:  Tp=   2. 46]
10793>        [ I aREC= 4. 00:  SMI N= 26. 32:  SMXs=175. 50:  SKs= . 010]
10794>        [ I nterEventTime=  12. 00]
10795> #
10796> # The Tp was modified according to a Peak Reduction factor ( MTO Chart B2- 4)
10797> # of 1. 61
10798> RR050: C00024-----------------------------------------------------------------------------------------------
10799>       CONTI NUOUS NASHYD        1. 0 01: SW_5A1         1412. 00     8. 794 No_date    37: 48    39. 93 . 490      . 000
10800>        [ CN= 75. 0:  N= 3. 00:  Tp=   8. 00]
10801>        [ I aREC= 4. 00:  SMI N= 33. 81:  SMXs=225. 43:  SKs= . 010]
10802>        [ I nterEventTime=  12. 00]
10803> RR050: C00025-----------------------------------------------------------------------------------------------
10804>       CONTI NUOUS NASHYD        1. 0 01: SW_4           585. 00    12. 896 No_date    29: 55    45. 60 . 560      . 000
10805>        [ CN= 81. 0:  N= 3. 00:  Tp=   1. 75]
10806>        [ I aREC= 4. 00:  SMI N= 25. 21:  SMXs=168. 09:  SKs= . 010]
10807>        [ I nterEventTime=  12. 00]
10808> RR050: C00026-----------------------------------------------------------------------------------------------
10809>       CONTI NUOUS NASHYD        1. 0 01: LM_CK          1021. 00    17. 059 No_date    30: 46    44. 77 . 549      . 000
10810>        [ CN= 80. 0:  N= 3. 00:  Tp=   2. 46]
10811>        [ I aREC= 4. 00:  SMI N= 26. 32:  SMXs=175. 50:  SKs= . 010]
10812>        [ I nterEventTime=  12. 00]
10813> RR050: C00027-----------------------------------------------------------------------------------------------
10814>       CONTI NUOUS NASHYD        1. 0 01: SW_2           177. 00     6. 469 No_date    28: 45    41. 51 . 509      . 000
10815>        [ CN= 77. 0:  N= 3. 00:  Tp=    . 75]
10816>        [ I aREC= 4. 00:  SMI N= 31. 15:  SMXs=207. 66:  SKs= . 010]
10817>        [ I nterEventTime=  12. 00]
10818> RR050: C00028-----------------------------------------------------------------------------------------------
10819>       CONTI NUOUS NASHYD        1. 0 01: SM_DR          1122. 00    15. 544 No_date    31: 43    45. 60 . 560      . 000
10820>        [ CN= 81. 0:  N= 3. 00:  Tp=   3. 25]
10821>        [ I aREC= 4. 00:  SMI N= 25. 21:  SMXs=168. 09:  SKs= . 010]
10822>        [ I nterEventTime=  12. 00]
10823> RR050: C00029-----------------------------------------------------------------------------------------------
10824>       CONTI NUOUS NASHYD        1. 0 01: MO_DR          2737. 00    34. 946 No_date    31: 29    40. 72 . 500      . 000
10825>        [ CN= 76. 0:  N= 3. 00:  Tp=   3. 03]
10826>        [ I aREC= 4. 00:  SMI N= 32. 46:  SMXs=216. 39:  SKs= . 010]
10827>        [ I nterEventTime=  12. 00]
10828> #
10829> # Routing hydrographs
10830> #
10831> # Starting with the addition of Jock River Headwater and Subwatershed 13
10832> #
10833> RR050: C00030-----------------------------------------------------------------------------------------------
10834>       ADD HYD                  1. 0 02: JR_HW          3680. 00    18. 440 No_date    36: 55    30. 33   n/ a      . 000
10835>                            +     1. 0 02: SW_13           971. 00     6. 937 No_date    32: 34    28. 27   n/ a      . 000
10836>                          SUM=    1. 0 01: S_N13          4651. 00    23. 559 No_date    35: 24    29. 90   n/ a      . 000
10837> #
10838> # Sum of hydrographs from Node 13 routed to Node 13A
10839> # ( Approximated cross- section - see cross- section 258)
10840> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
10841> #
10842> RR050: C00031-----------------------------------------------------------------------------------------------
10843>       ROUTE CHANNEL    ->      1. 0 02: S_N13          4651. 00    23. 559 No_date    35: 24    29. 90   n/ a      . 000
10844>        [ RDT= 1. 00]  out <-      1. 0 01: NI3A          4651. 00    19. 136 No_date    39: 06    29. 90   n/ a      . 000
10845>        [ L/ S/ n= 9074. / . 022/ . 040]
10846>        [ Vmax=   . 574: Dmax= 3. 920]
```

```
10847> #
10848> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
10849> #
10850> R0050: C00032-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10851>      ADD HYD                    1. 0 02: NI3A          4651. 00    19. 136 No_date   39: 06    29. 90   n/ a     . 000
10852>                             +   1. 0 02: IR_GWM        3074. 00     8. 912 No_date   39: 59    24. 31   n/ a     . 000
10853>                         SUM=    1. 0 01: SNI3A         7725. 00    27. 939 No_date   39: 54    27. 68   n/ a     . 000
10854> #
10855> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
10856> #
10857> R0050: C00033-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10858>      ROUTE RESERVOIR  ->        1. 0 02: SNI3A         7725. 00    27. 939 No_date   39: 54    27. 68   n/ a     . 000
10859>                       out  <=   1. 0 01: RES_GM        7725. 00     3. 808 No_date   61: 35    27. 67   n/ a     . 000
10860>       [MxSt oRked= 1481E+03   m3]
10861> #
10862> R0050: C00034-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10863>      SAVE HYD                   1. 0 01: RES_GM        7725. 00     3. 808 No_date   61: 35    27. 67   n/ a     . 000
10864>           fname : H_RESGM
10865>           remark: Outflow from Res GM
10866> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
10867> # (Approximated cross-section - see cross-section 258)
10868> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
10869> R0050: C00035-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10870>      ROUTE CHANNEL  ->          1. 0 02: RES_GM        7725. 00     3. 808 No_date   61: 35    27. 67   n/ a     . 000
10871>       [RDT= 1. 00]  out <-      1. 0 01: NI2           7725. 00     3. 804 No_date   64: 19    27. 68   n/ a     . 000
10872>         [L/ S/ n= 5926. /  . 076/ . 040]
10873>         [Vmx=  . 556: Dmx= 1. 541]
10874> #
10875> # Addition of Subwatershed Jock River at Ashton to Node 12
10876> #
10877> R0050: C00036-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10878>      ADD HYD                    1. 0 02: NI2           7725. 00     3. 804 No_date   64: 19    27. 68   n/ a     . 000
10879>                             +   1. 0 02: IR_ASH        1781. 00    16. 834 No_date   32: 39    36. 85   n/ a     . 000
10880>                         SUM=    1. 0 01: S_NI2         9506. 00    18. 867 No_date   32: 42    29. 39   n/ a     . 000
10881> R0050: C00037-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10882>      SAVE HYD                   1. 0 01: S_NI2         9506. 00    18. 867 No_date   32: 42    29. 39   n/ a     . 000
10883>           fname : H_SNI2
10884>           remark: flow at S_NI2 near Ashton
10885> #
10886> # Sum of hydrographs from Node 12 routed to Node 11
10887> # (Approximated cross-section - see cross-section 258)
10888> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
10889> #
10890> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
10891> #
10892> R0050: C00038-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10893>      ROUTE CHANNEL  ->          1. 0 02: S_NI2         9506. 00    18. 867 No_date   32: 42    29. 39   n/ a     . 000
10894>       [RDT= 1. 00]  out <-      1. 0 01: Dami1         9506. 00    18. 687 No_date   32: 59    29. 39   n/ a     . 000
10895>         [L/ S/ n=  972. /  . 054/ . 040]
10896>         [Vmx=  . 751: Dmx= 3. 029]
10897> #
10898> # Addition of Subwatershed 11 and No Name Creek to Node 11
10899> #
10900> R0050: C00039-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10901>      ADD HYD                    1. 0 02: Dami1         9506. 00    18. 687 No_date   32: 59    29. 39   n/ a     . 000
10902>                             +   1. 0 02: SW_I1          500. 00     9. 061 No_date   29: 21    31. 73   n/ a     . 000
10903>                             +   1. 0 02: NN_CK        1917. 00    12. 342 No_date   34: 26    31. 73   n/ a     . 000
10904>                         SUM=    1. 0 01: S_NI1         11923. 00   32. 851 No_date   33: 00    29. 87   n/ a     . 000
10905> #
10906> # Sum of hydrographs from Node 11 routed to Node 10
10907> # Section 1
10908> #
10909> R0050: C00040-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10910>      ROUTE CHANNEL  ->          1. 0 02: S_NI1         11923. 00   32. 851 No_date   33: 00    29. 87   n/ a     . 000
10911>       [RDT= 1. 00]  out <-      1. 0 01: NI0           11923. 00   20. 490 No_date   40: 02    29. 87   n/ a     . 000
10912>         [L/ S/ n=14028. /  . 157/ . 040]
10913>         [Vmx=  . 474: Dmx= 1. 423]
10914> #
10915> # Addition of Subwatershed 10 to Node 10
10916> #
10917> R0050: C00041-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10918>      ADD HYD                    1. 0 02: NI0           11923. 00   20. 490 No_date   40: 02    29. 87   n/ a     . 000
10919>                             +   1. 0 02: SW_I0         5666. 00    32. 402 No_date   37: 52    36. 85   n/ a     . 000
10920>                         SUM=    1. 0 01: S_NI0         17589. 00   52. 600 No_date   38: 19    32. 12   n/ a     . 000
10921> R0050: C00042-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10922>      SAVE HYD                   1. 0 01: S_NI0         17589. 00   52. 600 No_date   38: 19    32. 12   n/ a     . 000
10923>           fname : H_SNI0
10924>           remark: flow at S_NI0:  NI0 + SW_I0
10925> # Addition of Kings Creek to S_NI0
10926> #
10927> R0050: C00043-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10928>      ADD HYD                    1. 0 02: S_NI0         17589. 00   52. 600 No_date   38: 19    32. 12   n/ a     . 000
10929>                             +   1. 0 02: KG_CK          8376. 00    31. 024 No_date   39: 59    31. 73   n/ a     . 000
10930>                         SUM=    1. 0 01: S_NI0A        25965. 00   82. 746 No_date   39: 45    31. 99   n/ a     . 000
10931> #
10932> # Sum of hydrographs from Node 10 routed to Node 9
10933> # Section 2
10934> #
10935> R0050: C00044-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10936>      ROUTE CHANNEL  ->          1. 0 02: S_NI0A        25965. 00   82. 746 No_date   39: 45    31. 99   n/ a     . 000
10937>       [RDT= 1. 00]  out <-      1. 0 01: N9            25965. 00   80. 980 No_date   39: 59    31. 99   n/ a     . 000
10938>         [L/ S/ n= 3982. /  . 075/ . 040]
10939>         [Vmx=  . 744: Dmx= 2. 015]
10940> #
10941> # Addition of Subwatershed 9 and Nichols Creek to Node 9
10942> #
10943> R0050: C00045-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10944>      ADD HYD                    1. 0 02: N9            25965. 00   80. 980 No_date   39: 59    31. 99   n/ a     . 000
10945>                             +   1. 0 02: SW_9          1132. 00    14. 039 No_date   30: 53    35. 35   n/ a     . 000
10946>                             +   1. 0 02: NC_CK          4464. 00    15. 472 No_date   39: 59    28. 95   n/ a     . 000
10947>                         SUM=    1. 0 01: S_N9          31561. 00   99. 424 No_date   39: 59    31. 68   n/ a     . 000
10948> #
10949> # Sum of hydrographs from Node 9 routed to Node 8
10950> # Section 3
10951> #
10952> R0050: C00046-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10953>      ROUTE CHANNEL  ->          1. 0 02: S_N9          31561. 00   99. 424 No_date   39: 59    31. 68   n/ a     . 000
10954>       [RDT= 1. 00]  out <-      1. 0 01: N8            31561. 00   93. 665 No_date   39: 59    31. 68   n/ a     . 000
10955>         [L/ S/ n= 2269. /  . 088/ . 045]
10956>         [Vmx=  . 367: Dmx= 1. 834]
10957> #
10958> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
10959> #
10960> R0050: C00047-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10961>      ADD HYD                    1. 0 02: N8            31561. 00   93. 665 No_date   39: 59    31. 68   n/ a     . 000
10962>                             +   1. 0 02: SW_8          131. 00     2. 740 No_date   28: 57    29. 64   n/ a     . 000
10963>                             +   1. 0 02: HB_DR         3854. 00    18. 180 No_date   38: 32    31. 73   n/ a     . 000
10964>                         SUM=    1. 0 01: S_N8          35546. 00   111. 843 No_date   39: 59    31. 68   n/ a     . 000
10965> #
10966> # Sum of hydrographs from Node 8 routed to Node 7
10967> # Section 4
10968> #
10969> R0050: C00048-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10970>      ROUTE CHANNEL  ->          1. 0 02: S_N8          35546. 00   111. 843 No_date   39: 59    31. 68   n/ a     . 000
10971>       [RDT= 1. 00]  out <-      1. 0 01: N7            35546. 00   95. 475 No_date   44: 55    31. 68   n/ a     . 000
10972>         [L/ S/ n= 3750. /  . 053/ . 070]
10973>         [Vmx=  . 231: Dmx= 2. 290]
10974> #
10975> # Addition of Subwatershed 7 to Node 7
10976> #
10977> R0050: C00049-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10978>      ADD HYD                    1. 0 02: N7            35546. 00   95. 475 No_date   44: 55    31. 68   n/ a     . 000
10979>                             +   1. 0 02: SW_7          3197. 00    13. 937 No_date   36: 23    25. 61   n/ a     . 000
10980>                         SUM=    1. 0 01: S_N7          38743. 00   102. 892 No_date   43: 46    31. 18   n/ a     . 000
10981> R0050: C00050-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10982>      SAVE HYD                   1. 0 01: S_N7          38743. 00   102. 892 No_date   43: 46    31. 18   n/ a     . 000
10983>           fname : H_SN7
10984>           remark: flow at S_N7:  N7 + SW_7
10985> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
10986> # Storage area and volumes were estimated from available topo maps.
10987> # Release rate from fen was assumed to be controlled by the downstream
10988> # river cross-section for summer conditions.  It is was assumed that for up to
10989> # 0. 75 m of water, the main channel of the river provided the storage.  Above
10990> # this depth, the wetland starts to signigicantly store water.
10991> #
10992> R0050: C00051-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10993>      ROUTE RESERVOIR  ->        1. 0 02: S_N7          38743. 00   102. 892 No_date   43: 46    31. 18   n/ a     . 000
10994>                       out <=    1. 0 01: RES_RF        38743. 00    52. 029 No_date   59: 07    31. 18   n/ a     . 000
10995>       [MxSt oRked= 4394E+03   m3]
10996> R0050: C00052-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
10997>      SAVE HYD                   1. 0 01: RES_RF        38743. 00    52. 029 No_date   59: 07    31. 18   n/ a     . 000
10998>           fname : H_ResRF
10999>           remark: outflow of Richmond Fen
11000> #
11001> # Sum of hydrographs from Node 7 routed to Node 6
11002> # Section 5
11003> #
11004> R0050: C00053-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11005>      ROUTE CHANNEL  ->          1. 0 02: RES_RF        38743. 00    52. 029 No_date   59: 07    31. 18   n/ a     . 000
11006>       [RDT= 1. 00]  out <-      1. 0 01: N6            38743. 00   51. 784 No_date   60: 27    31. 18   n/ a     . 000
11007>         [L/ S/ n= 3056. /  . 082/ . 025]
11008>         [Vmx=  . 538: Dmx= 1. 253]
11009> #
11010> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
11011> #
11012> R0050: C00054-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11013>      ADD HYD                    1. 0 02: N6            38743. 00   51. 784 No_date   60: 27    31. 18   n/ a     . 000
11014>                             +   1. 0 02: SW_6          165. 00     1. 285 No_date   33: 02    32. 44   n/ a     . 000
11015>                             +   1. 0 02: VG_DR         1332. 00    9. 332 No_date   35: 12    36. 85   n/ a     . 000
11016>                         SUM=    1. 0 01: S_N6          40240. 01   51. 810 No_date   60: 20    31. 37   n/ a     . 000
11017> #
11018> # Sum of hydrographs from Node 6 routed to Node 5
11019> # Section 6
11020> #
11021> R0050: C00055-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11022>      ROUTE CHANNEL  ->          1. 0 02: S_N6          40240. 01   51. 810 No_date   60: 20    31. 37   n/ a     . 000
11023>       [RDT= 1. 00]  out <-      1. 0 01: N5            40240. 01   51. 693 No_date   61: 06    31. 37   n/ a     . 000
11024>         [L/ S/ n= 1852. /  . 054/ . 035]
11025>         [Vmx=  . 469: Dmx= 1. 351]
11026> #
11027> # Addition of Subwatershed 5 and Flowing Creek to Node 5
11028> #
11029> R0050: C00056-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11030>      ADD HYD                    1. 0 02: N5            40240. 01   51. 693 No_date   61: 06    31. 37   n/ a     . 000
11031>                             +   1. 0 02: SW_5          224. 00     8. 187 No_date   28: 45    41. 51   n/ a     . 000
11032>                             +   1. 0 02: FL_CK         4945. 00    44. 623 No_date   33: 18    38. 37   n/ a     . 000
11033>                         SUM=    1. 0 01: S_N5          45409. 01   71. 514 No_date   34: 20    32. 18   n/ a     . 000
11034> #
11035> # Sum of hydrographs from Node 5 routed to Node 5A
11036> # Section 7
11037> #
11038> R0050: C00057-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11039>      ROUTE CHANNEL  ->          1. 0 02: S_N5          45409. 01   71. 514 No_date   34: 20    32. 18   n/ a     . 000
11040>       [RDT= 1. 00]  out <-      1. 0 01: N5A           45409. 01   71. 311 No_date   34: 15    32. 18   n/ a     . 000
11041>         [L/ S/ n=  556. /  . 090/ . 040]
11042>         [Vmx=  . 530: Dmx= 1. 290]
11043> #
11044> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
11045> #
11046> R0050: C00058-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11047>      ADD HYD                    1. 0 02: N5A           45409. 01   71. 311 No_date   34: 15    32. 18   n/ a     . 000
11048>                             +   1. 0 02: SW_5A2          20. 00       . 943 No_date   28: 35    45. 60   n/ a     . 000
11049>                             +   1. 0 02: SW_5A1         1412. 00     8. 794 No_date   37: 48    39. 93   n/ a     . 000
11050>                         SUM=    1. 0 01: S_N5A         46841. 01   79. 247 No_date   34: 46    32. 42   n/ a     . 000
11051> #
11052> # Sum of hydrographs from Node 5A routed to Node 4
11053> # Section 8
11054> #
11055> R0050: C00059-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11056>      ROUTE CHANNEL  ->          1. 0 02: S_N5A         46841. 01   79. 247 No_date   34: 46    32. 42   n/ a     . 000
11057>       [RDT= 1. 00]  out <-      1. 0 01: N4            46841. 01   75. 833 No_date   36: 02    32. 42   n/ a     . 000
11058>         [L/ S/ n= 4630. /  . 043/ . 035]
11059>         [Vmx=  . 874: Dmx= 3. 702]
11060> #
11061> # Addition of Subwatershed 4 and Leamy Creek to Node 4
11062> #
11063> R0050: C00060-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11064>      ADD HYD                    1. 0 02: N4            46841. 01   75. 833 No_date   36: 02    32. 42   n/ a     . 000
11065>                             +   1. 0 02: SW_4          585. 00    12. 896 No_date   29: 55    45. 60   n/ a     . 000
11066>                             +   1. 0 02: LM_CK         1021. 00    17. 059 No_date   30: 46    44. 77   n/ a     . 000
11067>                         SUM=    1. 0 01: S_N4          48447. 00   84. 908 No_date   35: 20    32. 84   n/ a     . 000
11068> R0050: C00061-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11069>      SAVE HYD                   1. 0 01: S_N4          48447. 00   84. 908 No_date   35: 20    32. 84   n/ a     . 000
11070>           fname : S_N4. 0050
11071>           remark: flow at S_N4
11072> #
11073> # Sum of hydrographs from Node 4 routed to Node 2
11074> # Section 9
11075> #
11076> R0050: C00062-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11077>      ROUTE CHANNEL  ->          1. 0 02: S_N4          48447. 00   84. 908 No_date   35: 20    32. 84   n/ a     . 000
11078>       [RDT= 1. 00]  out <-      1. 0 01: N2            48447. 00   84. 582 No_date   35: 30    32. 84   n/ a     . 000
11079>         [L/ S/ n= 1667. /  . 060/ . 040]
11080>         [Vmx=  . 909: Dmx= 3. 749]
11081> #
11082> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
11083> #
11084> R0050: C00063-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11085>      ADD HYD                    1. 0 02: N2            48447. 00   84. 582 No_date   35: 30    32. 84   n/ a     . 000
11086>                             +   1. 0 02: SW_2          177. 00     6. 469 No_date   28: 45    41. 51   n/ a     . 000
11087>                             +   1. 0 02: SM_DR         1122. 00    15. 544 No_date   31: 43    45. 60   n/ a     . 000
11088>                             +   1. 0 02: MO_DR         2737. 00    34. 946 No_date   31: 29    40. 72   n/ a     . 000
11089>                         SUM=    1. 0 01: S_N2          52483. 00   124. 249 No_date   32: 52    33. 56   n/ a     . 000
11090> R0050: C00064-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11091>      SAVE HYD                   1. 0 01: S_N2          52483. 00   124. 249 No_date   32: 52    33. 56   n/ a     . 000
11092>           fname : H_SN2
11093>           remark: flow at S_N2 Jock River Gauge at Moodie Dr.
11094> #
11095> # Sum of hydrographs from Node 2 routed to Node 1
11096> # Section 10
11097> #
11098> #*************************************************************************
11099> #
11100> # Hydrograph from Node 2 routed to Node 416
11101> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
11102> #
11103> R0050: C00065-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11104>      ROUTE CHANNEL  ->          1. 0 02: S_N2          52483. 00   124. 249 No_date   32: 52    33. 56   n/ a     . 000
11105>       [RDT= 1. 00]  out <-      1. 0 01: N_416         52483. 00   120. 589 No_date   33: 57    33. 56   n/ a     . 000
11106>         [L/ S/ n= 2327. /  . 050/ . 055]
11107>         [Vmx=  . 781: Dmx= 3. 561]
11108> #*************************************************************************
11109> #    Catchment SW1a
11110> #    - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
11111> #    - Undeveloped agricultural land
11112> #*************************************************************************
11113> R0050: C00066-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11114>      CONTINUOUS NASHYD          1. 0 01: SW_1a         536. 42      6. 175 No_date   31: 15    35. 39   . 434    . 000
11115>       [CN= 72. 0:  N= 3. 00:  Tp=  2. 79]
11116>       [IaREC= 4. 00:  SM N= 39. 75:  SMX= 264. 99:  SK= . 010]
11117>       [InterEventTime= 12. 00]
11118> R0050: C00067-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11119>      CONTINUOUS STANDHYD        1. 0 01: S-1-Okeefe     44. 93      7. 341 No_date   28: 03    63. 95   . 785    . 000
11120>       [XI MP= . 65: TI MP= . 65]
11121>       [LOSS= 2 : CN= 75. 0]
11122>       [Pervious       area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
11123>       [Impervious     area: I Aimp= 1. 57: SLPI= . 75: LGI= 547. : MNI= . 013: SCI=    . 0]
11124>       [IaREC imp=  4. 00:  IaREC per=  4. 00]
11125>       [SM N= 33. 81:  SMX= 225. 01:  SK=  . 010]
11126> R0050: C00068-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11127>      ADD HYD                    1. 0 02: N_416         52483. 00   120. 589 No_date   33: 57    33. 56   n/ a     . 000
11128>                             +   1. 0 02: SW_1a          536. 42      6. 175 No_date   31: 15    35. 39   n/ a     . 000
11129>                             +   1. 0 02: S-1-Okeefe     44. 93      7. 341 No_date   28: 03    63. 95   n/ a     . 000
11130>                         SUM=    1. 0 01: SN_416        53064. 36   125. 441 No_date   33: 19    33. 60   n/ a     . 000
11131> R0050: C00069-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11132>      SAVE HYD                   1. 0 01: SN_416        53064. 36   125. 441 No_date   33: 19    33. 60   n/ a     . 000
11133>           fname : SN_416. 0050
11134>           remark: Total Flows at Highway 416
11135> #
11136> # Hydrograph from Node 416 routed to Node at Okeefe drain
11137> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
11138> #
11139> R0050: C00070-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11140>      ROUTE CHANNEL  ->          1. 0 02: SN_416        53064. 36   125. 441 No_date   33: 19    33. 60   n/ a     . 000
11141>       [RDT= 1. 00]  out <-      1. 0 01: N_OK          53064. 36   125. 350 No_date   33: 43    33. 60   n/ a     . 000
11142>         [L/ S/ n=  497. /  . 302/ . 055]
11143>         [Vmx= 1. 649: Dmx= 3. 038]
11144> #*************************************************************************
11145> #    Catchment OKEEFE
11146> #    - To O'Keefe drain (north of the Jock)
11147> #    - Developed with assumed 43% imp.
11148> #    - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
11149> #    - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
11150> #*************************************************************************
11151> R0050: C00071-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11152>      CONTINUOUS NASHYD          1. 0 01: O-1           63. 72      1. 147 No_date   28: 58    26. 31   . 323    . 000
11153>       [CN= 61. 0:  N= 3. 00:  Tp=  . 90]
11154>       [IaREC= 4. 00:  SM N= 64. 50:  SMX= 430. 01:  SK=  . 010]
11155>       [InterEventTime= 12. 00]
11156> R0050: C00072-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11157>      ROUTE CHANNEL  ->          1. 0 02: O-1           63. 72      1. 147 No_date   28: 58    26. 31   n/ a     . 000
11158>       [RDT= 1. 00]  out <-      1. 0 01: O-1R          63. 72      1. 084 No_date   29: 14    26. 31   n/ a     . 000
11159>         [L/ S/ n=  960. /  . 630/ . 043]
11160>         [Vmx=  . 880: Dmx=  . 445]
11161> R0050: C00073-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11162>      CONTINUOUS NASHYD          1. 0 01: O-2           28. 61       . 404 No_date   29: 13    24. 30   . 298    . 000
11163>       [CN= 57. 0:  N= 3. 00:  Tp=  1. 10]
11164>       [IaREC= 4. 00:  SM N= 76. 32:  SMX= 508. 81:  SK=  . 010]
11165>       [InterEventTime= 12. 00]
11166> R0050: C00074-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11167>      CONTINUOUS NASHYD          1. 0 01: O-4           46. 94       . 531 No_date   29: 00    18. 55   . 228    . 000
11168>       [CN= 49. 0:  N= 3. 00:  Tp=  . 90]
11169>       [IaREC= 4. 00:  SM N= 104. 59:  SMX= 697. 25:  SK=  . 010]
11170>       [InterEventTime= 12. 00]
11171> R0050: C00075-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11172>      ADD HYD                    1. 0 02: O-1R          63. 72      1. 084 No_date   29: 14    26. 31   n/ a     . 000
11173>                             +   1. 0 02: O-2           28. 61       . 404 No_date   29: 13    24. 30   n/ a     . 000
11174>                             +   1. 0 02: O-4           46. 94       . 531 No_date   29: 00    18. 55   n/ a     . 000
11175>                         SUM=    1. 0 01: OKF-N         139. 27     2. 005 No_date   29: 11    23. 28   n/ a     . 000
11176> R0050: C00076-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11177>      ROUTE CHANNEL  ->          1. 0 02: OKF-N         139. 27     2. 005 No_date   29: 11    23. 28   n/ a     . 000
11178>       [RDT= 1. 00]  out <-      1. 0 01: OKF-NR        139. 27     2. 004 No_date   29: 13    23. 28   n/ a     . 000
11179>         [L/ S/ n=  210. /  . 810/ . 043]
11180>         [Vmx= 1. 081: Dmx=  . 751]
11181> R0050: C00077-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11182>      CONTINUOUS NASHYD          1. 0 01: O-6           16. 46       . 179 No_date   28: 45    15. 94   . 196    . 000
11183>       [CN= 43. 0:  N= 3. 00:  Tp=  . 70]
11184>       [IaREC= 4. 00:  SM N= 134. 47:  SMX= 896. 47:  SK=  . 010]
11185>       [InterEventTime= 12. 00]
11186> R0050: C00078-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11187>      CONTINUOUS STANDHYD        1. 0 01: O-3           39. 67      1. 212 No_date   28: 22    28. 54   . 350    . 000
11188>       [XI MP= . 15: TI MP= . 30]
11189>       [LOSS= 2 : CN= 50. 0]
11190>       [Pervious       area: I Aper= 4. 67: SLPP=  . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
11191>       [Impervious     area: I Aimp= 1. 57: SLPI=  . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
11192>       [IaREC imp=  4. 00:  IaREC per=  4. 00]
11193>       [SM N= 99. 77:  SMX= 665. 12:  SK=  . 010]
11194> R0050: C00079-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11195>      CONTINUOUS STANDHYD        1. 0 01: O-5           60. 63      3. 085 No_date   28: 10    32. 89   . 403    . 000
11196>       [XI MP= . 13: TI MP= . 26]
11197>       [LOSS= 2 : CN= 61. 0]
11198>       [Pervious       area: I Aper= 4. 67: SLPP= 1. 38: LGP= 550. : MNP= . 035: SCP=    . 0]
11199>       [Impervious     area: I Aimp= 1. 57: SLPI= 1. 38: LGI= 1450. : MNI= . 013: SCI=    . 0]
11200>       [IaREC imp=  4. 00:  IaREC per=  4. 00]
11201>       [SM N= 64. 50:  SMX= 430. 01:  SK=  . 010]
11202> R0050: C00080-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11203>      ADD HYD                    1. 0 02: OKF-NR        139. 27     2. 004 No_date   29: 13    23. 28   n/ a     . 000
11204>                             +   1. 0 02: O-3           39. 67      1. 212 No_date   28: 22    28. 54   n/ a     . 000
11205>                             +   1. 0 02: O-5           60. 63      3. 085 No_date   28: 10    32. 89   n/ a     . 000
11206>                             +   1. 0 02: O-6           16. 46       . 179 No_date   28: 45    15. 94   n/ a     . 000
11207>                         SUM=    1. 0 01: PTI           256. 03     4. 968 No_date   28: 20    25. 90   n/ a     . 000
11208> R0050: C00081-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11209>      CONTINUOUS NASHYD          1. 0 01: O-7            5. 28       . 096 No_date   28: 37    21. 46   . 263    . 000
11210>       [CN= 54. 0:  N= 3. 00:  Tp=  . 60]
11211>       [IaREC= 4. 00:  SM N= 87. 01:  SMX= 580. 07:  SK=  . 010]
11212>       [InterEventTime= 12. 00]
11213> R0050: C00082-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11214>      ADD HYD                    1. 0 02: PTI           256. 03     4. 968 No_date   28: 20    25. 90   n/ a     . 000
11215>                             +   1. 0 02: O-7            5. 28       . 096 No_date   28: 37    21. 46   n/ a     . 000
11216>                         SUM=    1. 0 01: FF            261. 31     5. 051 No_date   28: 20    25. 81   n/ a     . 000
11217> R0050: C00083-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11218>      ROUTE CHANNEL  ->          1. 0 02: FF            261. 31     5. 051 No_date   28: 20    25. 81   n/ a     . 000
11219>       [RDT= 1. 00]  out <-      1. 0 01: DRAIN1        261. 31     4. 883 No_date   28: 25    25. 81   n/ a     . 000
11220>         [L/ S/ n=  302. /1. 000/ . 043]
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11221>          (Vmx=    .822: Dmx=    .759)
11222> R0050: C00084- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11223>       CONTI NUOUS NASHYD      1. 0 01: DI              1. 17         . 094 No_date   28: 12   43. 70 . 536      . 000
11224>          [ CN= 84. 0: N= 3. 00: Tp=    .28]
11225>          [ I aREC= 4. 00: SM N= 21. 09: SMX= 140. 62: SK= . 010]
11226>          [ I nterEvent Ti me=  12. 00]
11227> R0050: C00085- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11228>       CONTI NUOUS STANDHYD     1. 0 01: AI              2. 50         . 517 No_date   28: 01   64. 42 . 790      . 000
11229>          [ XI M= . 68: TI MP= . 85]
11230>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11231>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11232>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  224. : MNI = . 013: SCI =    . 0]
11233>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11234> R0050: C00086- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11235>       ROUTE RESERVOI R  - >           1. 0 02: ST- 2           2. 50         . 517 No_date   28: 01   64. 42 n/ a      . 000
11236>                        out <=         1. 0 01: AI - STR        2. 50         . 146 No_date   28: 19   64. 42 n/ a      . 000
11237>                  overflow <=          1. 0 03: AI - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11238>          [ MaxSt oRSed= . 2435E- 01  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11239> R0050: C00087- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11240>       CONTI NUOUS STANDHYD     1. 0 01: ST- 2           . 59          . 103 No_date   28: 00   50. 67 . 622      . 000
11241>          [ XI M= . 46: TI MP= . 57]
11242>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11243>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11244>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  109. : MNI = . 013: SCI =    . 0]
11245>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11246> R0050: C00088- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11247>       ROUTE RESERVOI R  - >           1. 0 02: ST- 2           . 59          . 103 No_date   28: 00   50. 67 n/ a      . 000
11248>                        out <=         1. 0 01: ST2STR          . 59          . 052 No_date   28: 11   50. 67 n/ a      . 000
11249>                  overflow <=          1. 0 03: ST2OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11250>          [ MaxSt oRSed= . 2435E- 02  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11251> R0050: C00089- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11252>       CONTI NUOUS NASHYD      1. 0 01: O- 8            60. 55        1. 383 No_date   29: 04   33. 66 . 413      . 000
11253>          [ CN= 69. 0: N= 3. 00: Tp=  1. 00]
11254>          [ I aREC= 4. 00: SM N= 44. 82: SMX= 298. 82: SK= . 010]
11255>          [ I nterEvent Ti me=  12. 00]
11256> R0050: C00090- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11257>       ROUTE PI PE       - >           1. 0 02: O- 8            60. 55        1. 383 No_date   29: 04   33. 66 n/ a      . 000
11258>          [ RDT= 1. 00]  out <-         1. 0 01: OPI PE          60. 55        1. 376 No_date   29: 07   33. 66 n/ a      . 000
11259>          [ L/ S/ n=   335. / . 100/ . 013]
11260>          [ Vmx= 1. 244: Dmx=    . 617]
11261>          [ HGHt= 1. 20: WDTH= 1. 80]
11262> R0050: C00091- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11263>       ADD HYD                  +      1. 0 02: DRAI N1         261. 31       4. 883 No_date   28: 25   25. 81 n/ a      . 000
11264>                                +      1. 0 02: DI              1. 17         . 094 No_date   28: 12   43. 70 n/ a      . 000
11265>                                +      1. 0 02: AI - STR        2. 50         . 146 No_date   28: 19   64. 42 n/ a      . 000
11266>                                +      1. 0 02: AI - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11267>                                +      1. 0 02: ST2STR           . 59         . 052 No_date   28: 11   50. 67 n/ a      . 000
11268>                                +      1. 0 02: ST2OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11269>                                +      1. 0 02: OPI PE          60. 55        1. 376 No_date   29: 07   33. 66 n/ a      . 000
11270>                                SUM=   1. 0 01: ST2- I N        326. 12       6. 061 No_date   28: 35   27. 67 n/ a      . 000
11271> R0050: C00092- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11272>       CONTI NUOUS STANDHYD     1. 0 01: AI              3. 51         . 704 No_date   28: 01   64. 42 . 790      . 000
11273>          [ XI M= . 68: TI MP= . 85]
11274>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11275>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11276>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  265. : MNI = . 013: SCI =    . 0]
11277>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11278> R0050: C00093- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11279>       ROUTE RESERVOI R  - >           1. 0 02: AI              3. 51         . 704 No_date   28: 01   64. 42 n/ a      . 000
11280>                        out <=         1. 0 01: AI - STR        3. 51         . 199 No_date   28: 26   64. 42 n/ a      . 000
11281>                  overflow <=          1. 0 03: AI - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11282>          [ MaxSt oRSed= . 1019E+ 00  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11283> R0050: C00094- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11284>       CONTI NUOUS STANDHYD     1. 0 01: ST- 3           . 71          . 123 No_date   28: 00   50. 67 . 622      . 000
11285>          [ XI M= . 46: TI MP= . 57]
11286>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11287>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11288>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  119. : MNI = . 013: SCI =    . 0]
11289>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11290> R0050: C00095- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11291>       ROUTE RESERVOI R  - >           1. 0 02: ST- 3           . 71          . 123 No_date   28: 00   50. 67 n/ a      . 000
11292>                        out <=         1. 0 01: ST3STR          . 71          . 063 No_date   28: 11   50. 67 n/ a      . 000
11293>                  overflow <=          1. 0 03: ST3OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11294>          [ MaxSt oRSed= . 4527E- 02  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11295> R0050: C00096- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11296>       ADD HYD                  +      1. 0 02: ST2- I N        326. 12       6. 061 No_date   28: 35   27. 67 n/ a      . 000
11297>                                +      1. 0 02: AI - STR        3. 51         . 199 No_date   28: 21   64. 42 n/ a      . 000
11298>                                +      1. 0 02: AI - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11299>                                +      1. 0 02: ST3STR           . 71         . 063 No_date   28: 11   50. 67 n/ a      . 000
11300>                                +      1. 0 02: ST3OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11301>                                SUM=   1. 0 01: PT2ST3         330. 34       6. 299 No_date   28: 33   28. 11 n/ a      . 000
11302> R0050: C00097- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11303>       ROUTE CHANNEL     - >           1. 0 02: PT2ST3         330. 34       6. 299 No_date   28: 33   28. 11 n/ a      . 000
11304>          [ RDT= 1. 00]  out <-         1. 0 01: DRAI N2        330. 34       5. 789 No_date   28: 58   28. 11 n/ a      . 000
11305>          [ L/ S/ n=   592. / . 230/ . 043]
11306>          [ Vmx=    . 593: Dmx=  1. 152]
11307> R0050: C00098- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11308>       CONTI NUOUS NASHYD      1. 0 01: D2              2. 28         . 074 No_date   29: 02   43. 70 . 536      . 000
11309>          [ CN= 84. 0: N= 3. 00: Tp=    .99]
11310>          [ I aREC= 4. 00: SM N= 21. 09: SMX= 140. 62: SK= . 010]
11311>          [ I nterEvent Ti me=  12. 00]
11312> R0050: C00099- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11313>       CONTI NUOUS STANDHYD     1. 0 01: AI7             12. 04        2. 163 No_date   28: 03   64. 42 . 790      . 000
11314>          [ XI M= . 68: TI MP= . 85]
11315>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11316>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11317>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  491. : MNI = . 013: SCI =    . 0]
11318>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11319> R0050: C00100- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11320>       ROUTE RESERVOI R  - >           1. 0 02: AI7             12. 04        2. 163 No_date   28: 03   64. 42 n/ a      . 000
11321>                        out <=         1. 0 01: AI7STR          12. 04         . 654 No_date   28: 27   64. 42 n/ a      . 000
11322>                  overflow <=          1. 0 03: AI7OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11323>          [ MaxSt oRSed= . 3445E+ 00  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11324> R0050: C00101- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11325>       CONTI NUOUS STANDHYD     1. 0 01: ST- 4           . 35          . 063 No_date   28: 00   50. 67 . 622      . 000
11326>          [ XI M= . 46: TI MP= . 57]
11327>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11328>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11329>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  84. : MNI = . 013: SCI =    . 0]
11330>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11331> R0050: C00102- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11332>       ROUTE RESERVOI R  - >           1. 0 02: ST- 4           . 35          . 063 No_date   28: 00   50. 67 n/ a      . 000
11333>                        out <=         1. 0 01: ST4STR           . 35         . 031 No_date   28: 10   50. 67 n/ a      . 000
11334>                  overflow <=          1. 0 03: ST4OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11335>          [ MaxSt oRSed= . 2719E- 02  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11336> R0050: C00103- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11337>       CONTI NUOUS STANDHYD     1. 0 01: AI8             5. 30         1. 036 No_date   28: 01   64. 42 . 790      . 000
11338>          [ XI M= . 68: TI MP= . 85]
11339>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11340>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11341>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  326. : MNI = . 013: SCI =    . 0]
11342>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11343> R0050: C00104- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11344>       ROUTE RESERVOI R  - >           1. 0 02: AI8             5. 30         1. 036 No_date   28: 01   64. 42 n/ a      . 000
11345>                        out <=         1. 0 01: AI8STR          5. 30          . 300 No_date   28: 22   64. 42 n/ a      . 000
11346>                  overflow <=          1. 0 03: AI8OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11347>          [ MaxSt oRSed= . 1532E+ 00  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11348> R0050: C00105- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11349>       ADD HYD                  +      1. 0 02: DRAI N2         330. 34       5. 789 No_date   28: 58   28. 11 n/ a      . 000
11350>                                +      1. 0 02: D2              2. 28         . 074 No_date   29: 02   43. 70 n/ a      . 000
11351>                                +      1. 0 02: AI7STR          12. 04        . 654 No_date   28: 27   64. 42 n/ a      . 000
11352>                                +      1. 0 02: AI7OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11353>                                +      1. 0 02: ST4STR           . 35         . 031 No_date   28: 10   50. 67 n/ a      . 000
11354>                                +      1. 0 02: ST4OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11355>                                +      1. 0 02: AI8STR          5. 30         . 300 No_date   28: 22   64. 42 n/ a      . 000
11356>                                +      1. 0 02: AI8OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11357>                                SUM=   1. 0 01: PT3ST4         350. 31       6. 632 No_date   28: 55   30. 03 n/ a      . 000
11358> R0050: C00106- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11359>       ROUTE CHANNEL     - >           1. 0 02: PT3ST4         350. 31       6. 632 No_date   28: 55   30. 03 n/ a      . 000
11360>          [ RDT= 1. 00]  out <-         1. 0 01: DRAI N3        350. 31       6. 350 No_date   29: 11   30. 03 n/ a      . 000
11361>          [ L/ S/ n=   525. / . 230/ . 043]
11362>          [ Vmx=    . 613: Dmx=  1. 197]
11363> R0050: C00107- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11364>       CONTI NUOUS NASHYD      1. 0 01: D3              2. 51         . 113 No_date   28: 43   47. 27 . 580      . 000
11365>          [ CN= 86. 0: N= 3. 00: Tp=    .73]
11366>          [ I aREC= 4. 00: SM N=  17. 43: SMX= 116. 21: SK= . 010]
11367>          [ I nterEvent Ti me=  12. 00]
11368> R0050: C00108- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11369>       CONTI NUOUS STANDHYD     1. 0 01: C1              3. 41         . 690 No_date   28: 01   64. 42 . 790      . 000
11370>          [ XI M= . 68: TI MP= . 85]
11371>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11372>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11373>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  261. : MNI = . 013: SCI =    . 0]
11374>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11375> R0050: C00109- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11376>       ROUTE RESERVOI R  - >           1. 0 02: C1              3. 41         . 690 No_date   28: 01   64. 42 n/ a      . 000
11377>                        out <=         1. 0 01: C1 - STR        3. 41         . 194 No_date   28: 20   64. 42 n/ a      . 000
11378>                  overflow <=          1. 0 03: C1 - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11379>          [ MaxSt oRSed= . 9900E- 01  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11380> R0050: C00110- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11381>       CONTI NUOUS STANDHYD     1. 0 01: ST- 5           . 45          . 079 No_date   28: 00   50. 67 . 622      . 000
11382>          [ XI M= . 46: TI MP= . 57]
11383>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11384>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11385>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  95. : MNI = . 013: SCI =    . 0]
11386>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11387> R0050: C00111- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11388>       ROUTE RESERVOI R  - >           1. 0 02: ST- 5           . 45          . 079 No_date   28: 00   50. 67 n/ a      . 000
11389>                        out <=         1. 0 01: ST5STR          . 45          . 040 No_date   28: 10   50. 67 n/ a      . 000
11390>                  overflow <=          1. 0 03: ST5OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11391>          [ MaxSt oRSed= . 3164E- 02  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11392> R0050: C00112- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11393>       ADD HYD                  +      1. 0 02: DRAI N3         350. 31       6. 350 No_date   29: 11   30. 03 n/ a      . 000
11394>                                +      1. 0 02: D3              2. 51         . 113 No_date   28: 43   47. 27 n/ a      . 000
11395>                                +      1. 0 02: C1 - STR        3. 41         . 194 No_date   28: 20   64. 42 n/ a      . 000
11396>                                +      1. 0 02: C1 - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11397>                                +      1. 0 02: ST5STR           . 45         . 040 No_date   28: 10   50. 67 n/ a      . 000
11398>                                +      1. 0 02: ST5OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11399>                                SUM=   1. 0 01: ST5- E          356. 68       6. 575 No_date   29: 09   30. 51 n/ a      . 000
11400> R0050: C00113- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11401>       CONTI NUOUS STANDHYD     1. 0 01: STRAND          7. 59         1. 038 No_date   28: 09   62. 95 . 772      . 000
11402>          [ XI M= . 64: TI MP= . 85]
11403>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11404>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP= . 250: SCP=    . 0]
11405>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =1230. : MNI = . 013: SCI =    . 0]
11406>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11407> R0050: C00114- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11408>       ROUTE RESERVOI R  - >           1. 0 02: STRAND          7. 59         1. 038 No_date   28: 09   62. 95 n/ a      . 000
11409>                        out <=         1. 0 01: S- POND         7. 59          . 137 No_date   29: 13   62. 95 n/ a      . 000
11410>                  overflow <=          1. 0 03: S- OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11411>          [ MaxSt oRSed= . 3159E+ 00  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11412> R0050: C00115- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11413>       ADD HYD                  +      1. 0 02: ST5- E          356. 68       6. 575 No_date   29: 09   30. 51 n/ a      . 000
11414>                                +      1. 0 02: S- POND         7. 59         . 137 No_date   29: 13   62. 95 n/ a      . 000
11415>                                +      1. 0 02: S- OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11416>                                SUM=   1. 0 01: SSAOUT         364. 27       6. 711 No_date   29: 09   31. 19 n/ a      . 000
11417> R0050: C00116- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11418>       SAVE HYD                       1. 0 01: SSAOUT          364. 27       6. 711 No_date   29: 09   31. 19 n/ a      . 000
11419>          fname: SSAOUT. 0050
11420>          remark: SSAOUT
11421> R0050: C00117- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11422>       CONTI NUOUS STANDHYD     1. 0 01: Area- A         66. 75        8. 917 No_date   28: 08   61. 83 . 759      . 000
11423>          [ XI M= . 64: TI MP= . 80]
11424>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11425>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11426>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =1155. : MNI = . 013: SCI =    . 0]
11427>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11428> R0050: C00118- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11429>       SAVE HYD                       1. 0 01: Area- A         66. 75        8. 917 No_date   28: 08   61. 83 n/ a      . 000
11430>          fname: Area- A 0050
11431>          remark: SWMF- A I nflow
11432> R0050: C00119- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11433>       ROUTE RESERVOI R  - >           1. 0 02: Area- A         66. 75        8. 917 No_date   28: 08   61. 83 n/ a      . 000
11434>                        out <=         1. 0 01: SWMF- A         66. 75        1. 070 No_date   29: 16   61. 83 n/ a      . 000
11435>                  overflow <=          1. 0 03: SWMOV            . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11436>          [ MaxSt oRSed= . 2845E+ 01  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11437> R0050: C00120- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11438>       SAVE HYD                       1. 0 01: SWMF- A         66. 75        1. 070 No_date   29: 16   61. 83 n/ a      . 000
11439>          fname: SWMF- A 0050
11440>          remark: SWMF- A I nflow
11441> R0050: C00121- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11442>       ADD HYD                  +      1. 0 02: SSAOUT          364. 27       6. 711 No_date   29: 09   31. 19 n/ a      . 000
11443>                                +      1. 0 02: SWMF- A         66. 75        1. 070 No_date   29: 16   61. 83 n/ a      . 000
11444>                                +      1. 0 02: SWMOV            . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11445>                                SUM=   1. 0 01: PT4STS         431. 02       7. 776 No_date   29: 10   35. 93 n/ a      . 000
11446> R0050: C00122- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11447>       CONTI NUOUS STANDHYD     1. 0 01: C6              1. 87         . 395 No_date   28: 01   64. 42 . 790      . 000
11448>          [ XI M= . 68: TI MP= . 85]
11449>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11450>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11451>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  193. : MNI = . 013: SCI =    . 0]
11452>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11453> R0050: C00123- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11454>       ROUTE RESERVOI R  - >           1. 0 02: C6              1. 87         . 395 No_date   28: 01   64. 42 n/ a      . 000
11455>                        out <=         1. 0 01: C6 - STR        1. 87         . 110 No_date   28: 18   64. 42 n/ a      . 000
11456>                  overflow <=          1. 0 03: C6 - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11457>          [ MaxSt oRSed= . 5452E- 01  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11458> R0050: C00124- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11459>       CONTI NUOUS STANDHYD     1. 0 01: C7              1. 62         . 347 No_date   28: 00   64. 42 . 790      . 000
11460>          [ XI M= . 68: TI MP= . 85]
11461>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11462>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11463>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  180. : MNI = . 013: SCI =    . 0]
11464>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11465> R0050: C00125- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11466>       ROUTE RESERVOI R  - >           1. 0 02: C7              1. 62         . 347 No_date   28: 00   64. 42 n/ a      . 000
11467>                        out <=         1. 0 01: C7 - STR        1. 62         . 096 No_date   28: 17   64. 42 n/ a      . 000
11468>                  overflow <=          1. 0 03: C7 - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11469>          [ MaxSt oRSed= . 4698E- 01  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11470> R0050: C00126- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11471>       CONTI NUOUS STANDHYD     1. 0 01: ST- 6           . 41          . 073 No_date   28: 00   50. 67 . 622      . 000
11472>          [ XI M= . 46: TI MP= . 57]
11473>          [ Hort on parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11474>          [ P ervi ous      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
11475>          [ I mpervi ous    area: I Ai mp= 1. 57: SLPI =  . 50: LGI =  91. : MNI = . 013: SCI =    . 0]
11476>          [ I aREC= mp=   4. 00: I aREC per =   4. 00]
11477> R0050: C00127- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11478>       ROUTE RESERVOI R  - >           1. 0 02: ST- 6           . 41          . 073 No_date   28: 00   50. 67 n/ a      . 000
11479>                        out <=         1. 0 01: ST6STR          . 41          . 036 No_date   28: 10   50. 67 n/ a      . 000
11480>                  overflow <=          1. 0 03: ST6OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11481>          [ MaxSt oRSed= . 3103E- 02  m3,  Tot Ori Vol = . 0000E+ 00  m3,  N- Ori = .     0,  Tot Dur Ori = .     0. hr s]
11482> R0050: C00128- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11483>       ADD HYD                  +      1. 0 02: PT4STS          431. 02       7. 776 No_date   29: 10   35. 93 n/ a      . 000
11484>                                +      1. 0 02: C6 - STR        1. 87         . 110 No_date   28: 18   64. 42 n/ a      . 000
11485>                                +      1. 0 02: C6 - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11486>                                +      1. 0 02: C7 - STR        1. 62         . 096 No_date   28: 17   64. 42 n/ a      . 000
11487>                                +      1. 0 02: C7 - OVF         . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11488>                                +      1. 0 02: ST6STR           . 41         . 036 No_date   28: 10   50. 67 n/ a      . 000
11489>                                +      1. 0 02: ST6OVF           . 00         . 000 No_date   0: 00     . 00 n/ a      . 000
11490>                                SUM=   1. 0 01: PT5STS         434. 92       7. 904 No_date   29: 09   36. 17 n/ a      . 000
11491> R0050: C00129- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11492>       ROUTE CHANNEL     - >           1. 0 02: PT5STS          434. 92       7. 904 No_date   29: 09   36. 17 n/ a      . 000
11493>          [ RDT= 1. 00]  out <-         1. 0 01: DRAI N4         434. 92       7. 615 No_date   29: 20   36. 17 n/ a      . 000
11494>          [ L/ S/ n=   324. / . 100/ . 043]
11495>          [ Vmx=    . 490: Dmx=  1. 531]
11496> R0050: C00130- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
11497>       CONTI NUOUS NASHYD      1. 0 01: D4              1. 73         . 097 No_date   28: 34   50. 14 . 615      . 000
11498>          [ CN= 88. 0: N= 3.
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11595> R0050: C00147-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11596>       SAVE HYD              1. 0 01: SN_OK       53577. 82   128. 036 No_date    33: 19    33. 65   n/ a      . 000
11597>        fname : SN_OK 0050
11598>        remark: Total Flows at Okeefe Drain
11599> #
11600> # Hydrograph from Node Okeefe routed to Node at Foster Drain
11601> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
11602> #
11603> R0050: C00148-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11604>       ROUTE CHANNEL    ->      1. 0 02: SN_OK       53577. 82   128. 036 No_date    33: 19    33. 65   n/ a      . 000
11605>        [ RDT= 1. 00] out <-      1. 0 01: N_FO        53577. 82   127. 650 No_date    33: 44    33. 65   n/ a      . 000
11606>        [ L/ S/ n=  1183. /  . 076/  . 035]
11607>        [ Vmax= 1. 239: Dmax= 3. 374]
11608> #*************************************************************************
11609> #     Catchment FOSTER
11610> #   - To Foster ditch (north of the Jock)
11611> #   - Partially developed (medium density); remaining agricultural
11612> #   - 2020-12-01 JFSAi nc. is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
11613> #   - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
11614> #   - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
11615> #*************************************************************************
11616> R0050: C00149-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11617>       CONTI NUOUS STANDHYD      1. 0 01: FOSTER      325. 44     32. 213 No_date    28: 11    58. 69   . 720     . 000
11618>        [ XI M= . 55: TI M= . 55]
11619>        [ LOSS= 2 : CN= 74. 0]
11620>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
11621>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =1473. : MNI =. 013: SCI =    . 0]
11622>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11623>        [ SMN= 36. 67:  SMX= 244. 49:  SK= . 010]
11624> #*************************************************************************
11625> #     Foster Pond
11626> #   - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
11627> #     and a ratio of the catchment area to the West Clarke pond rating curve
11628> #     from the MSS for the next coordinates
11629> #*************************************************************************
11630> R0050: C00150-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11631>       ROUTE RESERVOI R  ->      1. 0 02: FOSTER      325. 44     32. 213 No_date    28: 11    58. 69   n/ a      . 000
11632>                         out <=    1. 0 01: P_FOS       325. 44      8. 155 No_date    29: 03    58. 69   n/ a      . 000
11633>                       overflow <=    1. 0 03: FO- OVF         . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11634>        [ MaxSt ol ked= . 7887E+01   m3,  Tot Ovf Vol = . 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
11635> R0050: C00151-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11636>       ADD HYD               1. 0 02: P_FOS       325. 44      8. 155 No_date    29: 03    58. 69   n/ a      . 000
11637>                         +    1. 0 02: FO- OVF         . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11638>                         SUM=    1. 0 01: FOSTER- OUT     325. 44      8. 155 No_date    29: 03    58. 69   n/ a      . 000
11639> #*************************************************************************
11640> R0050: C00152-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11641>       CONTI NUOUS STANDHYD      1. 0 01: W_CLAR_BRA      73. 29     10. 462 No_date    28: 05    63. 49   . 779     . 000
11642>        [ XI M= . 60: TI M= . 65]
11643>        [ LOSS= 2 : CN= 77. 0]
11644>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11645>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  699. : MNI =. 013: SCI =    . 0]
11646>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11647>        [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
11648> R0050: C00153-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11649>       ROUTE RESERVOI R  ->      1. 0 02: W_CLAR_BRA      73. 29     10. 462 No_date    28: 05    63. 49   n/ a      . 000
11650>                         out <=    1. 0 01: MS_P10      73. 29      1. 204 No_date    29: 09    63. 49   n/ a      . 000
11651>                       overflow <=    1. 0 03: P10- OVF         . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11652>        [ MaxSt ol ked= . 1950E+01   m3,  Tot Ovf Vol = . 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
11653> R0050: C00154-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11654>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- FO- D2      4. 94      . 796 No_date    28: 01    58. 69   . 720     . 000
11655>        [ XI M= . 55: TI M= . 55]
11656>        [ LOSS= 2 : CN= 74. 0]
11657>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
11658>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  181. : MNI =. 013: SCI =    . 0]
11659>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11660>        [ SMN= 36. 67:  SMX= 244. 49:  SK= . 010]
11661> R0050: C00155-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11662>       ADD HYD               1. 0 02: FOSTER- OUT     325. 44      8. 155 No_date    29: 03    58. 69   n/ a      . 000
11663>                         +    1. 0 02: S- 1- FO- D2        4. 94      . 796 No_date    28: 01    58. 69   n/ a      . 000
11664>                         SUM=    1. 0 01: 980         330. 38      8. 232 No_date    29: 01    58. 69   n/ a      . 000
11665> R0050: C00156-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11666>       SAVE HYD              1. 0 01: 980         330. 38      8. 232 No_date    29: 01    58. 69   n/ a      . 000
11667>        fname : 980. 0050
11668>        remark: Total Flows at Station 980 on Foster Drain
11669> #
11670> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
11671> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
11672> #
11673> R0050: C00157-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11674>       ROUTE CHANNEL    ->      1. 0 02: 980         330. 38      8. 232 No_date    29: 01    58. 69   n/ a      . 000
11675> *     [ RDT= 1. 00] out <-      1. 0 01: 980- out     330. 38      7. 857 No_date    29: 22    58. 69   n/ a      . 000
11676>        [ L/ S/ n=  460. /  . 043/  . 035]
11677>        [ Vmax=  . 593: Dmax= 1. 601]
11678> R0050: C00158-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11679>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- FO- DI        5. 11      . 927 No_date    28: 00    63. 41   . 778     . 000
11680>        [ XI M= . 65: TI M= . 65]
11681>        [ LOSS= 2 : CN= 74. 0]
11682>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
11683>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  185. : MNI =. 013: SCI =    . 0]
11684>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11685>        [ SMN= 36. 67:  SMX= 244. 49:  SK= . 010]
11686> R0050: C00159-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11687>       ADD HYD               1. 0 02: 980- out     330. 38      7. 857 No_date    29: 22    58. 69   n/ a      . 000
11688>                         +    1. 0 02: S- 1- FO- DI        5. 11      . 927 No_date    28: 00    63. 41   n/ a      . 000
11689>                         SUM=    1. 0 01: 520         335. 49      7. 915 No_date    29: 22    58. 76   n/ a      . 000
11690> R0050: C00160-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11691>       SAVE HYD              1. 0 01: 520         335. 49      7. 915 No_date    29: 22    58. 76   n/ a      . 000
11692>        fname : 520. 0050
11693>        remark: Total Flows at Sation 520 on Foster Drain
11694> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
11695> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
11696> #
11697> R0050: C00161-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11698>       ROUTE CHANNEL    ->      1. 0 02: 520         335. 49      7. 915 No_date    29: 22    58. 76   n/ a      . 000
11699>        [ RDT= 1. 00] out <-      1. 0 01: 520- out     335. 49      7. 880 No_date    29: 26    58. 76   n/ a      . 000
11700>        [ L/ S/ n=  860. /  . 587/  . 035]
11701>        [ Vmax= 1. 532: Dmax=  . 761]
11702> R0050: C00162-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11703>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- FO- F- D      14. 96      2. 535 No_date    28: 01    63. 41   . 778     . 000
11704>        [ XI M= 65: TI M= 65]
11705>        [ LOSS= 2 : CN= 74. 0]
11706>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
11707>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  316. : MNI =. 013: SCI =    . 0]
11708>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11709>        [ SMN= 36. 67:  SMX= 244. 49:  SK= . 010]
11710> R0050: C00163-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11711>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- D8        5. 27      1. 052 No_date    28: 01    46. 77   . 574     . 000
11712>        [ XI M= . 32: TI M= . 65]
11713>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= . 00]
11714>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11715>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 75: LGI =  187. : MNI =. 013: SCI =    . 0]
11716>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11717> R0050: C00164-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11718>       CONTI NUOUS NASHYD        1. 0 01: S- 1- A         75. 88      3. 042 No_date    28: 36    39. 91   . 490     . 000
11719>        [ CN= 77. 0:  N= 3. 00:  Tp=  . 62]
11720>        [ I aREC= 4. 00:  SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
11721>        [ I nterEvent Ti me=  12. 00]
11722> R0050: C00165-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11723>       CONTI NUOUS NASHYD        1. 0 01: W_CLAR_UND      35. 65      . 943 No_date    29: 10    39. 91   . 490     . 000
11724>        [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
11725>        [ I aREC= 4. 00:  SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
11726>        [ I nterEvent Ti me=  12. 00]
11727> R0050: C00166-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11728>       ADD HYD               1. 0 02: 520- out     335. 49      7. 880 No_date    29: 26    58. 76   n/ a      . 000
11729>                         +    1. 0 02: MS_P10      73. 29      1. 204 No_date    29: 09    63. 49   n/ a      . 000
11730>                         +    1. 0 02: P10- OVF         . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11731>                         +    1. 0 02: W_CLAR_UND      35. 65      . 943 No_date    29: 10    39. 91   n/ a      . 000
11732>                         +    1. 0 02: S- 1- FO- F- D      14. 96      2. 535 No_date    28: 01    63. 41   n/ a      . 000
11733>                         +    1. 0 02: S- 1- D8        5. 27      1. 052 No_date    28: 01    46. 77   n/ a      . 000
11734>                         +    1. 0 02: S- 1- A         75. 88      3. 042 No_date    28: 36    39. 91   n/ a      . 000
11735>                         SUM=    1. 0 01: SN_FO       54118. 36    132. 647 No_date    33: 20    33. 87   n/ a      . 000
11736> R0050: C00167-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11737>       SAVE HYD              1. 0 01: SN_FO       54118. 36    132. 647 No_date    33: 20    33. 87   n/ a      . 000
11738>        fname : SN_FO 0050
11739>        remark: Total Flows at Foster Drain
11740> # Hydrograph from Node Foster routed to Node at Cedarview Road
11741> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
11742> #
11743> R0050: C00168-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11744>       ROUTE CHANNEL    ->      1. 0 02: SN_FO       54118. 36    132. 647 No_date    33: 20    33. 87   n/ a      . 000
11745> *     [ RDT= 1. 00] out <-      1. 0 01: N_CE        54118. 36    132. 435 No_date    33: 45    33. 87   n/ a      . 000
11746>        [ L/ S/ n=  159. /  . 082/  . 035]
11747>        [ Vmax= 1. 441: Dmax= 4. 166]
11748> #*************************************************************************
11749> #     Catchment S-1
11750> #   - To Jock River (north and south of Jock)
11751> #   - Primarily agricultural fields; portion of sand quarry
11752> #*************************************************************************
11753> R0050: C00169-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11754>       CONTI NUOUS NASHYD        1. 0 01: S- 1- B         55. 36      2. 770 No_date    28: 23    39. 91   . 490     . 000
11755>        [ CN= 77. 0:  N= 3. 00:  Tp=  . 45]
11756>        [ I aREC= 4. 00:  SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
11757>        [ I nterEvent Ti me=  12. 00]
11758> #     -  JFSA 2021-02-24 change the name from S-1- BCDC to S-1-A and S-1-B. Change their TP values based on the new areas
11759> #     -  JFSA 2021-02-24 "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and
11760> #     -  JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
11761> R0050: C00170-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11762>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- DI        21. 67      3. 809 No_date    28: 01    63. 95   . 785     . 000
11763>        [ XI M= 65: TI M= 65]
11764>        [ LOSS= 2 : CN= 75. 0]
11765>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11766>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  380. : MNI =. 013: SCI =    . 0]
11767>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11768>        [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
11769> R0050: C00171-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11770>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- D4        3. 28       . 652 No_date    28: 00    63. 95   . 785     . 000
11771>        [ XI M= 65: TI M= 65]
11772>        [ LOSS= 2 : CN= 75. 0]
11773>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11774>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  148. : MNI =. 013: SCI =    . 0]
11775>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11776>        [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
11777> R0050: C00172-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11778>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- D5        12. 84      2. 360 No_date    28: 01    63. 95   . 785     . 000
11779>        [ XI M= 65: TI M= 65]
11780>        [ LOSS= 2 : CN= 75. 0]
11781>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11782>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  293. : MNI =. 013: SCI =    . 0]
11783>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11784>        [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
11785> R0050: C00173-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11786>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- D6        1. 75       . 357 No_date    28: 00    63. 95   . 785     . 000
11787>        [ XI M= . 65: TI M= . 65]
11788>        [ LOSS= 2 : CN= 75. 0]
11789>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11790>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  108. : MNI =. 013: SCI =    . 0]
11791>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11792>        [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
11793> R0050: C00174-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11794>       CONTI NUOUS STANDHYD      1. 0 01: S- 1- D7        2. 03       . 411 No_date    28: 00    63. 95   . 785     . 000
11795>        [ XI M= . 65: TI M= . 65]
11796>        [ LOSS= 2 : CN= 75. 0]
11797>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11798>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  116. : MNI =. 013: SCI =    . 0]
11799>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11800>        [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
11801> #     Catchment W_CLAR
11802> #   - To West Clarke Drain (south of the Jock)
11803> #   - Subdivision with 43% imp. as per Barrhaven South MSS
11804> #   - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)-11
11805> #   - 2020-11-30 split CLARKE Drainage Area to MVOR and ALL
11806> #*************************************************************************
11807> R0050: C00175-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11808>       CONTI NUOUS STANDHYD      1. 0 01: W_CLAR_MI        1. 77       . 319 No_date    28: 00    59. 44   n/ a      . 000
11809>        [ XI M= . 46: TI M= . 59]
11810>        [ LOSS= 2 : CN= 77. 0]
11811>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11812>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  109. : MNI =. 013: SCI =    . 0]
11813>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11814>        [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
11815> # 5- Year + 12% Capture
11816> R0050: C00176-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11817>       ROUTE RESERVOI R  ->      1. 0 02: W_CLAR_MI        1. 77       . 319 No_date    28: 00    59. 44   n/ a      . 000
11818>                         out <=    1. 0 01: W_CLAR_MI n      1. 70       . 213 No_date    27: 53    59. 44   n/ a      . 000
11819>                       overflow <=    1. 0 03: W_CLAR_MI j         . 08       . 102 No_date    28: 01    59. 44   n/ a      . 000
11820>        [ MaxSt ol ked= . 1125E- 03   m3,  Tot Ovf Vol = . 4485E- 02   m3,  N- Ovf =     1,  Tot Dur Ovf =     0. hrs]
11821> R0050: C00177-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11822>       CONTI NUOUS STANDHYD      1. 0 01: W_CLAR_ALL      119. 40     17. 358 No_date    28: 04    63. 49   . 779     . 000
11823>        [ XI M= . 60: TI M= . 65]
11824>        [ LOSS= 2 : CN= 77. 0]
11825>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
11826>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  892. : MNI =. 013: SCI =    . 0]
11827>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11828>        [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
11829> R0050: C00178-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11830>       ADD HYD               1. 0 02: W_CLAR_ALL      119. 40     17. 358 No_date    28: 04    63. 49   n/ a      . 000
11831>                         +    1. 0 02: W_CLAR_MI j         . 08       . 102 No_date    28: 01    59. 44   n/ a      . 000
11832>                         SUM=    1. 0 01: W_CLAR      119. 47     17. 371 No_date    28: 04    63. 49   n/ a      . 000
11833> R0050: C00179-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11834>       SAVE HYD              1. 0 01: W_CLAR      119. 47     17. 371 No_date    28: 04    63. 49   n/ a      . 000
11835>        fname : W_CLAR. 0050
11836>        remark: Total Flows to West Clarke
11837> #*************************************************************************
11838> #     West Clarke Pond 2
11839> #   - Rating curve obtained from Barrhaven South MSS modeling
11840> #   - Tributary Drainage Area to MSS Pond 2 = 241 ha
11841> #*************************************************************************
11842> R0050: C00180-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11843>       ROUTE RESERVOI R  ->      1. 0 02: W_CLAR      119. 47     17. 371 No_date    28: 04    63. 49   n/ a      . 000
11844>                         out <=    1. 0 01: MS_P2       119. 47     10. 246 No_date    28: 16    63. 49   n/ a      . 000
11845>                       overflow <=    1. 0 03: P2- OVF         . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11846>        [ MaxSt ol ked= . 3076E+01   m3,  Tot Ovf Vol = . 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
11847> #*************************************************************************
11848> #     Catchment 5737 on Jock River
11849> R0050: C00181-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11850>       ADD HYD               1. 0 02: N_CE        54118. 36    132. 435 No_date    33: 45    33. 87   n/ a      . 000
11851>                         +    1. 0 02: S- 1- D4        3. 28       . 652 No_date    28: 00    63. 95   n/ a      . 000
11852>                         +    1. 0 02: S- 1- D5        12. 84      2. 360 No_date    28: 01    63. 95   n/ a      . 000
11853>                         +    1. 0 02: MS_P2       119. 47     10. 246 No_date    28: 16    63. 49   n/ a      . 000
11854>                         +    1. 0 02: P2- OVF         . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11855>                         SUM=    1. 0 01: SN_CE       54253. 95    133. 341 No_date    33: 45    33. 95   n/ a      . 000
11856> R0050: C00182-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11857>       SAVE HYD              1. 0 01: SN_CE       54253. 95    133. 341 No_date    33: 45    33. 95   n/ a      . 000
11858>        fname : SN_CE 0050
11859>        remark: Total Flows before Station 5737 on Jock River
11860> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
11861> # 2021-02-25 add station 5737 from Station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-16\Des
11862> # JFSA 2021-03-02  change the slope to 0.0175% instead of 0.02593 to stabilize the model
11863> R0050: C00183-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11864>       ROUTE CHANNEL    ->      1. 0 02: SN_CE       54253. 95    133. 341 No_date    33: 45    33. 95   n/ a      . 000
11865> *     [ RDT= 1. 00] out <-      1. 0 01: 5737        54253. 95    125. 432 No_date    35: 56    33. 95   n/ a      . 000
11866>        [ L/ S/ n=  270. /  . 018/  . 035]
11867>        [ Vmax=  . 825: Dmax= 5. 266]
11868> R0050: C00184-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11869>       ADD HYD               1. 0 02: 5737        54253. 95    125. 432 No_date    35: 56    33. 95   n/ a      . 000
11870>                         +    1. 0 02: S- 1- DI        21. 67      3. 809 No_date    28: 01    63. 95   n/ a      . 000
11871>                         +    1. 0 02: S- 1- D6        1. 75       . 357 No_date    28: 00    63. 95   n/ a      . 000
11872>                         +    1. 0 02: S- 1- D7        2. 03       . 411 No_date    28: 00    63. 95   n/ a      . 000
11873>                         SUM=    1. 0 01: 5002        54279. 41    125. 526 No_date    35: 56    33. 96   n/ a      . 000
11874> R0050: C00185-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11875>       SAVE HYD              1. 0 01: 5002        54279. 41    125. 526 No_date    35: 56    33. 96   n/ a      . 000
11876>        fname : 5002. 0050
11877>        remark: Total Flows before Station 5002 on Jock River
11878> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
11879> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
11880> # JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable
11881> # JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
11882> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
11883> R0050: C00186-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11884>       ROUTE CHANNEL    ->      1. 0 02: 5002        54279. 41    125. 526 No_date    35: 56    33. 96   n/ a      . 000
11885> *     [ RDT= 1. 00] out <-      1. 0 01: N_WA        54279. 41    125. 506 No_date    36: 03    33. 96   n/ a      . 000
11886>        [ L/ S/ n=  245. /  . 095/  . 035]
11887>        [ Vmax= 1. 264: Dmax= 2. 962]
11888> R0050: C00187-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11889>       ROUTE CHANNEL    ->      1. 0 02: N_WA        54279. 41    125. 506 No_date    36: 03    33. 96   n/ a      . 000
11890> *     [ RDT= 1. 00] out <-      1. 0 01: N_WB        54279. 41    125. 490 No_date    36: 09    33. 96   n/ a      . 000
11891>        [ L/ S/ n=  245. /  . 095/  . 035]
11892>        [ Vmax= 1. 264: Dmax= 2. 961]
11893> R0050: C00188-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11894>       ROUTE CHANNEL    ->      1. 0 02: N_WB        54279. 41    125. 490 No_date    36: 09    33. 96   n/ a      . 000
11895> *     [ RDT= 1. 00] out <-      1. 0 01: N_WC        54279. 41    125. 479 No_date    36: 14    33. 96   n/ a      . 000
11896>        [ L/ S/ n=  245. /  . 095/  . 035]
11897>        [ Vmax= 1. 264: Dmax= 2. 961]
11898> #*************************************************************************
11899> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
11900> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
11901> #
11902> R0050: C00189-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11903>       ROUTE CHANNEL    ->      1. 0 02: N_WC        54279. 41    125. 479 No_date    36: 14    33. 96   n/ a      . 000
11904> *     [ RDT= 1. 00] out <-      1. 0 01: N_KB        54279. 41    125. 282 No_date    36: 02    33. 96   n/ a      . 000
11905>        [ L/ S/ n=  1020. /  . 050/  . 035]
11906>        [ Vmax= 1. 122: Dmax= 3. 740]
11907> #*************************************************************************
11908> #     Catchment KEN_BU
11909> #   - To Kennedy-Burnett SWM Facility
11910> #   - Outlets to Fraser-Clarke drain (north of the Jock)
11911> #   - Medium density residential subdivision
11912> #*************************************************************************
11913> #*************************************************************************
11914> #     Existing Kennedy-Burnett SWM Facility
11915> #   - Rating curve obtained from METRIXRP
11916> #   - Tributary Drainage Area to Pond = 160 ha
11917> #*************************************************************************
11918> R0050: C00190-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11919>       CONTI NUOUS STANDHYD      1. 0 01: KB- 01A         40. 82      4. 812 No_date    28: 10    33. 07   . 406     . 000
11920>        [ XI M= . 10: TI M= . 40]
11921>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= . 00]
11922>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
11923>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 50: LGI =  522. : MNI =. 013: SCI =    . 0]
11924>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
11925> R0050: C00191-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11926>       COMPUTE DUALHYD       1. 0 01: KB- 01A         40. 82      4. 812 No_date    28: 10    33. 07   n/ a      . 000
11927>        Major System    /      1. 0 02: KB- 01A- MI        . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11928>        Minor System    \      1. 0 03: KB- 01A- MN        40. 82      3. 600 No_date    28: 00    33. 14   n/ a      . 000
11929>        [ MaJ Sys St o= . 1012E+04   Tot Ovf Vol = . 0000E+00   N- Ovf =     0,  Tot Dur Ovf =     0. hrs]
11930> R0050: C00192-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11931>       ADD HYD               1. 0 02: KB- 01A- MI        . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
11932>                         +    1. 0 02: KB- 01A- MN        40. 82      3. 600 No_date    28: 00    33. 14   n/ a      . 000
11933>                         SUM=    1. 0 01: KB- 01A- S      40. 82      3. 600 No_date    28: 00    33. 14   n/ a      . 000
11934> R0050: C00193-------------DTmi n-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
11935>       CONTI NUOUS STANDHYD      1. 0 01: KB- 01B         31. 10      3. 541 No_date    28: 07    36. 47   n/ a      . 000
11936>        [ XI M= . 19: TI M= . 38]
11937>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F= . 00]
11938>        [ Pervious      area: I Aper= 4. 67: SLPP
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11969>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
11970>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
11971>          [Impervious    area: IAimp=  .79: SLPI= . 63: LGI= 752. : MNI=. 013: SCI=   .0]
11972>          [IaRECmp=   4. 00: IaRECper=   4. 00]
11973> R0050: C00200-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
11974>      COMPUTE DUALHYD          1. 0 01: KB-03          84. 78    11. 183 No_date    28: 07   37. 17   n/a      .000
11975>      Major System   /         1. 0 02: KB-03-M          .00      .000 No_date     0: 00     .00   n/a      .000
11976>      Minor System   \         1. 0 03: KB-03-MN         84. 78    5. 270 No_date    27: 54   37. 24   n/a      .000
11977>          [M SysSto=. 6453E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
11978> R0050: C00201-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
11979>      ADD HYD                  1. 0 02: KB-03-M          .00      .000 No_date     0: 00     .00   n/a      .000
11980>                         +     1. 0 03: KB-03-MN         84. 78    5. 270 No_date    27: 54   37. 24   n/a      .000
11981>                         SUM=  1. 0 01: KB-03-S          84. 78    5. 270 No_date    27: 54   37. 24   n/a      .000
11982> R0050: C00202-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
11983>      CONTI NUOUS STANDHYD     1. 0 01: KB-04           6. 95     1. 592 No_date    28: 00   71. 86   n/a      .882    .000
11984>          [XI MP=. 85: TI MP=. 85]
11985>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
11986>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
11987>          [Impervious    area: IAimp=  .94: SLPI= . 50: LGI= 215. : MNI=. 013: SCI=   .0]
11988>          [IaRECmp=   4. 00: IaRECper=   4. 00]
11989> R0050: C00203-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
11990>      COMPUTE DUALHYD          1. 0 01: KB-04           6. 95     1. 592 No_date    28: 00   71. 86   n/a      .000
11991>      Major System   /         1. 0 02: KB-04-M          .00      .000 No_date     0: 00     .00   n/a      .000
11992>      Minor System   \         1. 0 03: KB-04-MN         6. 95     .503 No_date    27: 44   72. 11   n/a      .000
11993>          [M SysSto=. 9423E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
11994> R0050: C00204-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
11995>      ADD HYD                  1. 0 02: KB-04-M          .00      .000 No_date     0: 00     .00   n/a      .000
11996>                         +     1. 0 03: KB-04-MN         6. 95     .503 No_date    27: 44   72. 11   n/a      .000
11997>                         SUM=  1. 0 01: KB-04-S          6. 95     .503 No_date    27: 44   72. 11   n/a      .000
11998> R0050: C00205-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
11999>      CONTI NUOUS STANDHYD     1. 0 01: KB-05           5. 19     1. 270 No_date    28: 00   75. 92   . 931    .000
12000>          [XI MP=. 93: TI MP=. 93]
12001>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12002>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12003>          [Impervious    area: IAimp=  1. 57: SLPI= . 50: LGI= 186. : MNI=. 013: SCI=   .0]
12004>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12005> R0050: C00206-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12006>      CONTI NUOUS STANDHYD     1. 0 01: KB-06          12. 93     3. 268 No_date    28: 00   73. 20   . 898    .000
12007>          [XI MP=. 87: TI MP=. 87]
12008>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12009>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12010>          [Impervious    area: IAimp=  .94: SLPI=4. 75: LGI= 294. : MNI=. 013: SCI=   .0]
12011>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12012> R0050: C00207-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12013>      CONTI NUOUS STANDHYD     1. 0 01: KB-06          12. 93     3. 268 No_date    28: 00   73. 20   n/a      .000
12014>      Major System   /         1. 0 02: KB-06-M          .00      .000 No_date     0: 00     .00   n/a      .000
12015>      Minor System   \         1. 0 03: KB-06-MN         12. 93    2. 262 No_date    27: 52   73. 67   n/a      .000
12016>          [M SysSto=. 4323E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12017> R0050: C00208-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12018>      ADD HYD                  1. 0 02: KB-06-M          .00      .000 No_date     0: 00     .00   n/a      .000
12019>                         +     1. 0 03: KB-06-MN         12. 93    2. 262 No_date    27: 52   73. 67   n/a      .000
12020>                         SUM=  1. 0 01: KB-06-S          12. 93    2. 262 No_date    27: 52   73. 67   n/a      .000
12021> R0050: C00209-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12022>      CONTI NUOUS STANDHYD     1. 0 01: KB-11           4. 03      .921 No_date    28: 00   61. 82   . 758    .000
12023>          [XI MP=. 68: TI MP=. 68]
12024>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12025>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12026>          [Impervious    area: IAimp=  .79: SLPI=2. 00: LGI= 164. : MNI=. 013: SCI=   .0]
12027>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12028> R0050: C00210-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12029>      COMPUTE DUALHYD          1. 0 01: KB-11           4. 03      .921 No_date    28: 00   61. 82   n/a      .000
12030>      Major System   /         1. 0 02: KB-11-M          .00      .000 No_date     0: 00     .00   n/a      .000
12031>      Minor System   \         1. 0 03: KB-11-MN         4. 03     .577 No_date    27: 52   62. 10   n/a      .000
12032>          [M SysSto=. 1581E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12033> R0050: C00211-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12034>      ADD HYD                  1. 0 02: KB-11-M          .00      .000 No_date     0: 00     .00   n/a      .000
12035>                         +     1. 0 03: KB-11-MN         4. 03     .577 No_date    27: 52   62. 10   n/a      .000
12036>                         SUM=  1. 0 01: KB-11-S          4. 03     .577 No_date    27: 52   62. 10   n/a      .000
12037> R0050: C00212-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12038>      CONTI NUOUS STANDHYD     1. 0 01: SI              4. 99     1. 304 No_date    28: 00   75. 92   . 931    .000
12039>          [XI MP=. 93: TI MP=. 93]
12040>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12041>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12042>          [Impervious    area: IAimp=  1. 57: SLPI=2. 00: LGI= 182. : MNI=. 013: SCI=   .0]
12043>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12044> R0050: C00213-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12045>      CONTI NUOUS STANDHYD     1. 0 01: KB-15           2. 15      .497 No_date    28: 00   69. 00   . 847    .000
12046>          [XI MP=. 79: TI MP=. 79]
12047>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12048>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12049>          [Impervious    area: IAimp=  .16: SLPI= . 30: LGI= 120. : MNI=. 013: SCI=   .0]
12050>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12051> R0050: C00214-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12052>      ADD HYD                  1. 0 02: KB-01A-S         40. 82     3. 600 No_date    28: 00   33. 14   n/a      .000
12053>                         +     1. 0 02: KB-01B-S         31. 10     1. 585 No_date    27: 53   36. 51   n/a      .000
12054>                         +     1. 0 02: KB-01C-S         13. 78     1. 350 No_date    27: 55   37. 86   n/a      .000
12055>                         +     1. 0 02: KB-03-S          84. 78     5. 270 No_date    27: 54   37. 24   n/a      .000
12056>                         +     1. 0 02: KB-04-S           6. 95      .503 No_date    27: 44   72. 11   n/a      .000
12057>                         +     1. 0 02: KB-05             5. 19     1. 270 No_date    28: 00   75. 92   n/a      .000
12058>                         +     1. 0 02: KB-06-S          12. 93     2. 262 No_date    27: 52   73. 67   n/a      .000
12059>                         +     1. 0 02: KB-11-S           4. 03      .577 No_date    27: 52   62. 10   n/a      .000
12060>                         +     1. 0 02: KB-15             2. 15      .497 No_date    28: 00   69. 00   n/a      .000
12061>                         +     1. 0 02: SI                4. 99     1. 304 No_date    28: 00   75. 92   n/a      .000
12062>                         SUM=  1. 0 01: KB-P1           206. 72    18. 218 No_date    28: 00   42. 53   n/a      .000
12063> R0050: C00215-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12064>      ROUTE RESERVOIR - >      1. 0 02: KB-P1         206. 72    18. 218 No_date    28: 00   42. 53   n/a      .000
12065>                         out <=    1. 0 01: KB-P1R      198. 38    12. 438 No_date    28: 02   42. 53   n/a      .000
12066>                         overflow <=  1. 0 03: KB-P1ovf    8. 34     5. 573 No_date    28: 02   42. 53   n/a      .000
12067>          [MaxStoRed=. 7313E+00   m3,  Tot Or f Vol =. 3545E+00   m3,  N- Or f =    2,  Tot Dur Or f =    1. hrs]
12068> R0050: C00216-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12069>      ADD HYD                  1. 0 02: KB-P1R          198. 38    12. 438 No_date    28: 02   42. 53   n/a      .000
12070>                         +     1. 0 02: KB-P1ovf         8. 34     5. 573 No_date    28: 02   42. 53   n/a      .000
12071>                         SUM=  1. 0 01: KB-Pond1        206. 72    18. 011 No_date    28: 02   42. 53   n/a      .000
12072> R0050: C00217-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12073>      SAVE HYD                 1. 0 01: KB-Pond1        206. 72    18. 011 No_date    28: 02   42. 53   n/a
12074>          fname : KB-Pond1. 0050
12075>          remark: Total Flows at  KB first pond
12076> R0050: C00218-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12077>      CONTI NUOUS STANDHYD     1. 0 01: KB-07           10. 86     2. 656 No_date    28: 00   72. 58   . 890    .000
12078>          [XI MP=. 86: TI MP=. 86]
12079>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12080>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12081>          [Impervious    area: IAimp=  .79: SLPI=2. 00: LGI= 269. : MNI=. 013: SCI=   .0]
12082>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12083> R0050: C00219-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12084>      COMPUTE DUALHYD          1. 0 01: KB-07           10. 86     2. 656 No_date    28: 00   72. 58   n/a      .000
12085>      Major System   /         1. 0 02: KB-07-M          .00      .000 No_date     0: 00     .00   n/a      .000
12086>      Minor System   \         1. 0 03: KB-07-MN         10. 86    2. 094 No_date    28: 08   72. 95   n/a      .000
12087>          [M SysSto=. 1950E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12088> R0050: C00220-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12089>      ADD HYD                  1. 0 02: KB-07-M          .00      .000 No_date     0: 00     .00   n/a      .000
12090>                         +     1. 0 03: KB-07-MN         10. 86    2. 094 No_date    28: 08   72. 95   n/a      .000
12091>                         SUM=  1. 0 01: KB-07-S          10. 86    2. 094 No_date    28: 08   72. 95   n/a      .000
12092> R0050: C00221-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12093>      CONTI NUOUS STANDHYD     1. 0 01: KB-08           6. 61     1. 444 No_date    28: 00   59. 78   . 733    .000
12094>          [XI MP=. 64: TI MP=. 64]
12095>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12096>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12097>          [Impervious    area: IAimp=  .79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=   .0]
12098>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12099> R0050: C00222-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12100>      COMPUTE DUALHYD          1. 0 01: KB-08           6. 61     1. 444 No_date    28: 00   59. 78   n/a      .000
12101>      Major System   /         1. 0 02: KB-08-M          .00      .000 No_date     0: 00     .00   n/a      .000
12102>      Minor System   \         1. 0 03: KB-08-MN         6. 61    1. 058 No_date    27: 53   60. 05   n/a      .000
12103>          [M SysSto=. 1439E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12104> R0050: C00223-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12105>      ADD HYD                  1. 0 02: KB-08-M          .00      .000 No_date     0: 00     .00   n/a      .000
12106>                         +     1. 0 03: KB-08-MN         6. 61    1. 058 No_date    27: 53   60. 05   n/a      .000
12107>                         SUM=  1. 0 01: KB-08-S          6. 61    1. 058 No_date    27: 53   60. 05   n/a      .000
12108> R0050: C00224-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12109>      CONTI NUOUS STANDHYD     1. 0 01: KB-09           2. 60      .665 No_date    28: 00   71. 90   . 882    .000
12110>          [XI MP=. 86: TI MP=. 86]
12111>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12112>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12113>          [Impervious    area: IAimp=  1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=   .0]
12114>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12115> R0050: C00225-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12116>      CONTI NUOUS STANDHYD     1. 0 01: KB-10_1         2. 37      .607 No_date    28: 00   71. 90   . 882    .000
12117>          [XI MP=. 86: TI MP=. 86]
12118>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12119>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12120>          [Impervious    area: IAimp=  1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=   .0]
12121>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12122> R0050: C00226-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12123>      CONTI NUOUS STANDHYD     1. 0 01: KB-10_2         1. 14      .295 No_date    28: 00   71. 90   . 882    .000
12124>          [XI MP=. 86: TI MP=. 86]
12125>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12126>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12127>          [Impervious    area: IAimp=  1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=   .0]
12128>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12129> R0050: C00227-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12130>      CONTI NUOUS STANDHYD     1. 0 01: KB-12           4. 86     1. 174 No_date    28: 00   68. 26   . 837    .000
12131>          [XI MP=. 79: TI MP=. 79]
12132>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12133>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12134>          [Impervious    area: IAimp=  1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=   .0]
12135>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12136> R0050: C00228-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12137>      COMPUTE DUALHYD          1. 0 01: KB-12           4. 86     1. 174 No_date    28: 00   68. 26   n/a      .000
12138>      Major System   /         1. 0 02: KB-12-M          .00      .000 No_date     0: 00     .00   n/a      .000
12139>      Minor System   \         1. 0 03: KB-12-MN         4. 86     .867 No_date    28: 09   68. 93   n/a      .000
12140>          [M SysSto=. 1203E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12141> R0050: C00229-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12142>      ADD HYD                  1. 0 02: KB-12-M          .00      .000 No_date     0: 00     .00   n/a      .000
12143>                         +     1. 0 03: KB-12-MN         4. 86     .867 No_date    28: 09   68. 93   n/a      .000
12144>                         SUM=  1. 0 01: KB-12-S          4. 86     .867 No_date    28: 09   68. 93   n/a      .000
12145> R0050: C00230-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12146>      CONTI NUOUS STANDHYD     1. 0 01: KB-13          10. 19     2. 184 No_date    28: 00   59. 78   . 733    .000
12147>          [XI MP=. 64: TI MP=. 64]
12148>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12149>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12150>          [Impervious    area: IAimp=  .79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=   .0]
12151>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12152> R0050: C00231-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12153>      COMPUTE DUALHYD          1. 0 01: KB-13          10. 19     2. 184 No_date    28: 00   59. 78   n/a      .000
12154>      Major System   /         1. 0 02: KB-13-M          .00      .000 No_date     0: 00     .00   n/a      .000
12155>      Minor System   \         1. 0 03: KB-13-MN         10. 19    1. 722 No_date    27: 55   60. 01   n/a      .000
12156>          [M SysSto=. 1587E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12157> R0050: C00232-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12158>      ADD HYD                  1. 0 02: KB-13-M          .00      .000 No_date     0: 00     .00   n/a      .000
12159>                         +     1. 0 02: KB-13-MN         10. 19    1. 722 No_date    27: 55   60. 01   n/a      .000
12160>                         SUM=  1. 0 01: KB-13-S          10. 19    1. 722 No_date    27: 55   60. 01   n/a      .000
12161> R0050: C00233-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12162>      CONTI NUOUS STANDHYD     1. 0 01: KB-14           5. 47     1. 201 No_date    28: 00   59. 78   . 733    .000
12163>          [XI MP=. 64: TI MP=. 64]
12164>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12165>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12166>          [Impervious    area: IAimp=  .79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=   .0]
12167>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12168> R0050: C00234-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12169>      COMPUTE DUALHYD          1. 0 01: KB-14           5. 47     1. 201 No_date    28: 00   59. 78   n/a      .000
12170>      Major System   /         1. 0 02: KB-14-M          .00      .000 No_date     0: 00     .00   n/a      .000
12171>      Minor System   \         1. 0 03: KB-14-MN         5. 47     .873 No_date    27: 53   60. 02   n/a      .000
12172>          [M SysSto=. 1239E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12173> R0050: C00235-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12174>      ADD HYD                  1. 0 02: KB-14-M          .00      .000 No_date     0: 00     .00   n/a      .000
12175>                         +     1. 0 02: KB-14-MN         5. 47     .873 No_date    27: 53   60. 02   n/a      .000
12176>                         SUM=  1. 0 01: KB-14-S          5. 47     .873 No_date    27: 53   60. 02   n/a      .000
12177> R0050: C00236-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12178>      CONTI NUOUS STANDHYD     1. 0 01: KB-16_2         3. 42      .724 No_date    28: 01   64. 30   . 789    .000
12179>          [XI MP=. 71: TI MP=. 71]
12180>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12181>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12182>          [Impervious    area: IAimp=  .16: SLPI= . 30: LGI= 151. : MNI=. 013: SCI=   .0]
12183>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12184> R0050: C00237-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12185>      ADD HYD                  1. 0 01: KB-Pond2        206. 72    18. 011 No_date    28: 02   42. 53   n/a      .000
12186>                         +     1. 0 02: KB-07-S          10. 86     2. 094 No_date    28: 08   72. 95   n/a      .000
12187>                         +     1. 0 02: KB-08-S           6. 61     1. 058 No_date    27: 53   60. 05   n/a      .000
12188>                         +     1. 0 02: KB-09             2. 60      .665 No_date    28: 00   71. 90   n/a      .000
12189>                         +     1. 0 02: KB-10_1           2. 37      .607 No_date    28: 00   71. 90   n/a      .000
12190>                         +     1. 0 02: KB-10_2           1. 14      .295 No_date    28: 00   71. 90   n/a      .000
12191>                         +     1. 0 02: KB-12-S           4. 86      .867 No_date    28: 09   68. 93   n/a      .000
12192>                         +     1. 0 02: KB-13-S          10. 19     1. 722 No_date    27: 55   60. 01   n/a      .000
12193>                         +     1. 0 02: KB-14-S           5. 47      .873 No_date    27: 53   60. 02   n/a      .000
12194>                         +     1. 0 02: KB-16_2           3. 42      .724 No_date    28: 01   64. 30   n/a      .000
12195>                         SUM=  1. 0 01: KB-P2           254. 24    26. 339 No_date    28: 02   46. 87   n/a      .000
12196> R0050: C00238-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12197>      ROUTE RESERVOIR - >      1. 0 02: KB-P2         254. 24    26. 339 No_date    28: 02   46. 87   n/a      .000
12198>                         out <=    1. 0 01: KB-P2R      253. 10    17. 634 No_date    28: 09   46. 87   n/a      .000
12199>                         overflow <=  1. 0 03: KB-P2ovf    1. 14     5. 257 No_date    28: 09   46. 87   n/a      .000
12200>          [MaxStoRed=. 1109E+01   m3,  Tot Or f Vol =. 5351E-01   m3,  N- Or f =    1,  Tot Dur Or f =    0. hrs]
12201> R0050: C00239-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12202>      ADD HYD                  1. 0 02: KB-P2R          253. 10    17. 634 No_date    28: 09   46. 87   n/a      .000
12203>                         +     1. 0 02: KB-P2ovf          1. 14     5. 257 No_date    28: 09   46. 87   n/a      .000
12204>                         SUM=  1. 0 01: KB-Pond2        254. 24    22. 891 No_date    28: 09   46. 87   n/a      .000
12205> R0050: C00240-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12206>      SAVE HYD                 1. 0 01: KB-Pond2        254. 24    22. 891 No_date    28: 09   46. 87   n/a
12207>          fname : KB-Pond2. 0050
12208>          remark: Total Flows at  KB second pond
12209> R0050: C00241-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12210>      CONTI NUOUS STANDHYD     1. 0 01: KB-16_1           2. 80      .624 No_date    28: 00   66. 65   . 818    .000
12211>          [XI MP=. 75: TI MP=. 75]
12212>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12213>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12214>          [Impervious    area: IAimp=  .16: SLPI= . 30: LGI= 137. : MNI=. 013: SCI=   .0]
12215>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12216> R0050: C00242-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12217>      ADD HYD                  1. 0 02: KB-Pond2        254. 24    22. 891 No_date    28: 09   46. 87   n/a      .000
12218>                         +     1. 0 02: KB-16_1           2. 80      .624 No_date    28: 00   66. 65   n/a      .000
12219>                         SUM=  1. 0 01: KB-P3           257. 04    23. 147 No_date    28: 09   47. 08   n/a      .000
12220> R0050: C00243-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12221>      ROUTE RESERVOIR - >      1. 0 02: KB-P3         257. 04    23. 147 No_date    28: 09   47. 08   n/a      .000
12222>                         out <=    1. 0 01: KB-P3R      9. 40      .051 No_date    17: 13   47. 07   n/a      .000
12223>                         overflow <=  1. 0 03: KB-P3ovf    247. 64    22. 286 No_date    28: 10   47. 08   n/a      .000
12224>          [MaxStoRed=. 1988E-02   m3,  Tot Or f Vol =. 1166E+02   m3,  N- Or f =    1,  Tot Dur Or f =   23. hrs]
12225> R0050: C00244-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12226>      ADD HYD                  1. 0 02: KB-P3R            9. 40      .051 No_date    17: 13   47. 07   n/a      .000
12227>                         +     1. 0 02: KB-P3ovf        247. 64    22. 286 No_date    28: 10   47. 08   n/a      .000
12228>                         SUM=  1. 0 01: KB-Pond3        257. 04    22. 337 No_date    28: 10   47. 08   n/a      .000
12229> R0050: C00245-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12230>      SAVE HYD                 1. 0 01: KB-Pond3        257. 04    22. 337 No_date    28: 10   47. 08   n/a
12231>          fname : KB-Pond3. 0050
12232>          remark: Total Flows at  KB third pond
12233> #*************************************************************************
12234> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
12235> #     - TO FRASER- CLARKE DRAIN
12236> #*************************************************************************
12237> R0050: C00246-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12238>      CONTI NUOUS STANDHYD     1. 0 01: FC-01           8. 03     1. 483 No_date    28: 01   49. 52   . 608    .000
12239>          [XI MP=. 47: TI MP=. 47]
12240>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12241>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12242>          [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=   .0]
12243>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12244> R0050: C00247-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12245>      COMPUTE DUALHYD          1. 0 01: FC-01           8. 03     1. 483 No_date    28: 01   49. 52   n/a      .000
12246>      Major System   /         1. 0 02: FC-01-M          .00      .000 No_date     0: 00     .00   n/a      .000
12247>      Minor System   \         1. 0 03: FC-01-MN         8. 03     .756 No_date    28: 32   49. 91   n/a      .000
12248>          [M SysSto=. 4662E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12249> R0050: C00248-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12250>      ADD HYD                  1. 0 02: FC-01-M          .00      .000 No_date     0: 00     .00   n/a      .000
12251>                         +     1. 0 02: FC-01-MN         8. 03     .756 No_date    27: 51   49. 91   n/a      .000
12252>                         SUM=  1. 0 01: FC-01-S          8. 03     .756 No_date    27: 51   49. 91   n/a      .000
12253> R0050: C00249-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12254>      CONTI NUOUS STANDHYD     1. 0 01: FC-02          16. 05     3. 831 No_date    28: 00   75. 92   n/a      .000
12255>          [XI MP=. 93: TI MP=. 93]
12256>          [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F= .00]
12257>          [Pervious      area: IAper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=   .0]
12258>          [Impervious    area: IAimp=  1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=   .0]
12259>          [IaRECmp=   4. 00: IaRECper=   4. 00]
12260> R0050: C00250-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12261>      COMPUTE DUALHYD          1. 0 01: FC-02          16. 05     3. 831 No_date    28: 00   75. 92   n/a      .000
12262>      Major System   /         1. 0 02: FC-02-M          .00      .000 No_date     0: 00     .00   n/a      .000
12263>      Minor System   \         1. 0 03: FC-02-MN         16. 05    1. 159 No_date    27: 43   75. 94   n/a      .000
12264>          [M SysSto=. 2348E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
12265> R0050: C00251-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh: mm----RVmm R. C. ---DWFcms
12266>      ADD HYD                  1. 0 02: FC-02-M          .00      .000 No_date     0: 00     .00   n/a      .000
12267>                         +     1. 
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12343> #*******************************************************************************
12344> R0050: C00264-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12345>      CONTI NUOUS NASHYD      1. 0 01: FRASER- DRN     13. 65        . 711 No_date   28: 22    39. 91 . 490     .000
12346>        [ CN= 77. 0: N= 3. 00: Tp=  . 43]
12347>        [ IaREC= 4. 00: SMN= 31. 15: SMX= 207. 66: SK= . 010]
12348>        [ InterEvent Time= 12. 00]
12349> R0050: C00265-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12350>      CONTI NUOUS STANDHYD    1. 0 01: FRASER- D       21. 61       3. 688 No_date   28: 01    62. 97 . 773     .000
12351>        [ XI M= . 58: TI MP= . 58]
12352>        [ LOSS= 2 : CN= 80. 0]
12353>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12354>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 380. : MNI= . 013: SCI=    . 0]
12355>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12356>        [ SMN= 26. 32: SMX= 175. 50: SK= . 010]
12357> R0050: C00266-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12358>      COMPUTE DUALHYD         1. 0 01: FRASER- D       21. 61       3. 688 No_date   28: 01    62. 97  n/ a     .000
12359>        Major System   /      1. 0 02: FRASER- J         . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12360>        Minor System   \      1. 0 03: FRASER- N       21. 61       2. 281 No_date   27: 53    63. 21  n/ a     .000
12361>        [ MJ SysSto= . 7987E+03,  Tot Orf Vol= . 0000E+00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
12362> R0050: C00267-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12363>      ADD HYD                 1. 0 02: FRASER- J         . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12364>                          +   1. 0 02: FRASER- N       21. 61       2. 281 No_date   27: 53    63. 21  n/ a     .000
12365>                          SUM=  1. 0 01: FRASER- S       21. 61       2. 281 No_date   27: 53    63. 21  n/ a     .000
12366> R0050: C00268-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12367>      ADD HYD                 1. 0 02: KB- Pond3       257. 04      22. 337 No_date   28: 10    47. 08  n/ a     .000
12368>                          +   1. 0 02: S- 1- B         55. 36       2. 770 No_date   28: 23    39. 91  n/ a     .000
12369>                          +   1. 0 02: FRASER- DRN     13. 65        . 711 No_date   28: 22    39. 91  n/ a     .000
12370>                          +   1. 0 02: FRASER- S        8. 24        . 563 No_date   27: 44    59. 48  n/ a     .000
12371>                          +   1. 0 02: JR- 02- S         1. 59        . 153 No_date   27: 45    59. 66  n/ a     .000
12372>                          +   1. 0 02: FC- 01- S         8. 03        . 756 No_date   27: 51    49. 91  n/ a     .000
12373>                          +   1. 0 02: FC- 02- S        16. 05       1. 159 No_date   27: 43    75. 94  n/ a     .000
12374>                          +   1. 0 02: FC- 03- S         7. 37        . 450 No_date   28: 14    59. 51  n/ a     .000
12375>                          SUM=  1. 0 01: 4241        54658. 52    126. 092 No_date   36: 02    34. 06  n/ a     .000
12376> R0050: C00269-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12377>      SAVE HYD                1. 0 01: 4241        54658. 52    126. 092 No_date   36: 02    34. 06  n/ a     .000
12378>        fname : 4241. 0050
12379>        remark: Total Flows at Ken- Burnett Outlet
12380> # Hydrograph from Node Ken- Burnett to station 3633
12381> # Channel X- Section obtained from RWCA Hydraulic Model - Station 4241
12382> #
12383> R0050: C00270-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12384>      ROUTE CHANNEL     - >   1. 0 02: 4241        54658. 52    126. 088 No_date   36: 02    34. 06  n/ a     .000
12385> *    [ RDT= 1. 00] out <-    1. 0 01: 4241- out   54658. 52    126. 088 No_date   36: 02    34. 06  n/ a     .000
12386>        [ L/ S/ n=  294. /  . 109/ . 035]
12387>        [ Vmax= 1. 329: Dmax= 2. 424]
12388> R0050: C00271-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12389>      ADD HYD                 1. 0 02: 4241- out   54658. 52    126. 088 No_date   36: 02    34. 06  n/ a     .000
12390>                          +   1. 0 02: FC- 04- S        12. 87        . 741 No_date   27: 44    59. 54  n/ a     .000
12391>                          +   1. 0 02: JR- 01- S         8. 24        . 563 No_date   27: 44    59. 48  n/ a     .000
12392>                          +   1. 0 02: JR- 02- S         1. 59        . 153 No_date   27: 45    59. 66  n/ a     .000
12393>                          SUM=  1. 0 01: SN_ KB      54681. 21    126. 145 No_date   36: 02    34. 07  n/ a     .000
12394> R0050: C00272-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12395>      SAVE HYD                1. 0 01: SN_ KB      54681. 21    126. 145 No_date   36: 02    34. 07  n/ a     .000
12396>        fname : SN_ KB. 0050
12397>        remark: HYD_ COMMENT= [ " Total Flows before Station 3633]
12398> # Hydrograph from Station 3633 to Node Todd
12399> # Channel X- Section obtained from RWCA Hydraulic Model - Station 3633
12400> # JFSA 2021- 02- 26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0. 0498% to 0. 2
12401> #
12402> R0050: C00273-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12403>      ROUTE CHANNEL     - >   1. 0 02: SN_ KB      54681. 21    126. 145 No_date   36: 02    34. 07  n/ a     .000
12404>        [ RDT= 1. 00] out <-    1. 0 01: N_ TO       54681. 21    125. 879 No_date   36: 02    34. 07  n/ a     .000
12405>        [ L/ S/ n=  608. /  . 247/ . 035]
12406>        [ Vmax= 1. 807: Dmax= 1. 819]
12407> #*******************************************************************************
12408> #    Catchment Greenbank
12409> #    - To Greenbank Drain (south of the Jock)
12410> #    - JFSA 2021- 01- 18 add Greenbank pond as per JFSA_ P598( 06)- 15, June 2016
12411> #    - JFSA 2021- 01- 19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
12412> #*******************************************************************************
12413> R0050: C00274-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12414>      CONTI NUOUS STANDHYD    1. 0 01: Greenbank       36. 60       6. 286 No_date   28: 02    65. 04 . 798     .000
12415>        [ XI M= . 64: TI MP= . 68]
12416>        [ LOSS= 2 : CN= 77. 0]
12417>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12418>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 494. : MNI= . 013: SCI=    . 0]
12419>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12420>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
12421> R0050: C00275-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12422>      ROUTE RESERVOI R - >     1. 0 02: Greenbank       36. 60       6. 286 No_date   28: 02    65. 04  n/ a     .000
12423>                          out <=    1. 0 01: GreenB_ MN      36. 60       4. 176 No_date   28: 09    65. 04  n/ a     .000
12424>                          overflow <=    1. 0 03: GreenB_ MI        . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12425>        [ MJ SysSto= . 9063E+00   m3,  Tot Orf Vol= . 0000E+00   m3,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
12426> R0050: C00276-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12427>      ADD HYD                 1. 0 02: N_ TO       54681. 21    125. 879 No_date   36: 02    34. 07  n/ a     .000
12428>                          +   1. 0 02: GreenB_ MI        . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12429>                          +   1. 0 02: GreenB_ MN      36. 60       4. 176 No_date   28: 09    65. 04  n/ a     .000
12430>                          SUM=  1. 0 01: GreenB      54717. 81    126. 050 No_date   36: 02    34. 09  n/ a     .000
12431> R0050: C00277-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12432>      SAVE HYD                1. 0 01: GreenB      54717. 81    126. 050 No_date   36: 02    34. 09  n/ a     .000
12433>        fname : GreenB. 0050
12434>        remark: Total Flows at Greenbank Drain
12435> #*******************************************************************************
12436> #    Catchment TODD
12437> #    - To Todd Drain (south of the Jock)
12438> #    - Subdivision with 43% imp. as per Barrhaven South MSS
12439> #    - 2020- 11- 30 increase imp. based on P598( 04)- 11
12440> #    - 2020- 11- 30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598( 04)- 11
12441> #    - 2020- 11- 30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
12442> #*******************************************************************************
12443> #    - JFSA 2021- 01- 19 "part of Clarke( "WCLAR_ MI N" ) and remove it from Todd
12444> R0050: C00278-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12445>      CONTI NUOUS STANDHYD    1. 0 01: TODD_ MN2        2. 10        . 384 No_date   28: 00    60. 14 . 738     .000
12446>        [ XI M= . 53: TI MP= . 57]
12447>        [ LOSS= 2 : CN= 77. 0]
12448>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12449>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 118. : MNI= . 013: SCI=    . 0]
12450>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12451>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
12452> R0050: C00279-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12453>      CONTI NUOUS STANDHYD    1. 0 01: TODD_ MN3         . 12         . 022 No_date   28: 00    60. 13 . 738     .000
12454>        [ XI M= . 53: TI MP= . 57]
12455>        [ LOSS= 2 : CN= 77. 0]
12456>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12457>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI=  28. : MNI= . 013: SCI=    . 0]
12458>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12459>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
12460> R0050: C00280-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12461>      CONTI NUOUS STANDHYD    1. 0 01: TODD_ MI        30. 23       4. 894 No_date   28: 02    61. 85 . 759     .000
12462>        [ XI M= . 52: TI MP= . 64]
12463>        [ LOSS= 2 : CN= 77. 0]
12464>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12465>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 449. : MNI= . 013: SCI=    . 0]
12466>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12467>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
12468> R0050: C00281-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12469>      CONTI NUOUS STANDHYD    1. 0 01: TODD_ ALL      112. 91      15. 270 No_date   28: 04    59. 95 . 735     .000
12470>        [ XI M= . 52: TI MP= . 57]
12471>        [ LOSS= 2 : CN= 77. 0]
12472>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12473>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 868. : MNI= . 013: SCI=    . 0]
12474>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12475>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
12476> R0050: C00282-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12477>      CONTI NUOUS STANDHYD    1. 0 01: TODD_ P         3. 06        . 600 No_date   28: 00    63. 61 . 780     .000
12478>        [ XI M= . 63: TI MP= . 63]
12479>        [ LOSS= 2 : CN= 77. 0]
12480>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12481>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 143. : MNI= . 013: SCI=    . 0]
12482>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12483>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
12484> # 5- Year + 12% Capture
12485> R0050: C00283-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12486>      ROUTE RESERVOI R - >     1. 0 02: TODD_ MI        30. 23       4. 894 No_date   28: 02    61. 85  n/ a     .000
12487>                          out <=    1. 0 01: TODD_ MIn       28. 89       3. 314 No_date   27: 54    61. 87  n/ a     .000
12488>                          overflow <=    1. 0 03: TODD_ MIj        1. 34       1. 567 No_date   28: 02    61. 85  n/ a     .000
12489>        [ MJ SysSto= . 1169E- 02   m3,  Tot Orf Vol= . 8285E- 01   m3,  N- Orf=     1,  Tot Dur Orf=     0. hrs]
12490> # 5- Year + 12% Capture
12491> R0050: C00284-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12492>      ROUTE RESERVOI R - >     1. 0 02: TODD_ MN2        2. 10        . 384 No_date   28: 00    60. 14  n/ a     .000
12493>                          out <=    1. 0 01: TODD_ MN2n      2. 02        . 268 No_date   27: 53    60. 14  n/ a     .000
12494>                          overflow <=    1. 0 03: TODD_ MN2j        . 08        . 111 No_date   28: 00    60. 14  n/ a     .000
12495>        [ MJ SysSto= . 1643E- 03   m3,  Tot Orf Vol= . 4631E- 02   m3,  N- Orf=     1,  Tot Dur Orf=     0. hrs]
12496> R0050: C00285-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12497>      ROUTE RESERVOI R - >     1. 0 02: TODD_ MN3         . 12         . 022 No_date   28: 00    60. 13  n/ a     .000
12498>                          out <=    1. 0 01: TODD_ MN3n       . 11         . 016 No_date   27: 52    60. 13  n/ a     .000
12499>                          overflow <=    1. 0 03: TODD_ MN3j        . 00         . 006 No_date   28: 00    60. 13  n/ a     .000
12500>        [ MJ SysSto= . 8712E- 04   m3,  Tot Orf Vol= . 2472E- 03   m3,  N- Orf=     1,  Tot Dur Orf=     0. hrs]
12501> R0050: C00286-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12502>      CONTI NUOUS STANDHYD    1. 0 01: A2              25. 50       3. 441 No_date   28: 03    55. 89 . 686     .000
12503>        [ XI M= . 42: TI MP= . 52]
12504>        [ LOSS= 2 : CN= 75. 0]
12505>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12506>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 566. : MNI= . 013: SCI=    . 0]
12507>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12508>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
12509> R0050: C00287-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12510>      COMPUTE DUALHYD         1. 0 01: A2              25. 50       3. 441 No_date   28: 03    55. 89  n/ a     .000
12511>        Major System   /      1. 0 02: A2- MI            . 64        . 180 No_date   28: 07    55. 89  n/ a     .000
12512>        Minor System   \      1. 0 03: A2- MN          24. 86       1. 818 No_date   28: 39    56. 08  n/ a     .000
12513>        [ MJ SysSto= . 9240E+03,  Tot Orf Vol= . 3586E+03,  N- Orf=     1,  Tot Dur Orf=     0. hrs]
12514> R0050: C00288-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12515>      ADD HYD                 1. 0 02: TODD_ MN2n       2. 02        . 268 No_date   27: 53    60. 14  n/ a     .000
12516>                          +   1. 0 02: TODD_ MN3n        . 11         . 016 No_date   27: 52    60. 13  n/ a     .000
12517>                          +   1. 0 02: TODD_ MIj        1. 34       1. 567 No_date   28: 02    61. 85  n/ a     .000
12518>                          +   1. 0 02: TODD_ P         3. 06        . 600 No_date   28: 00    63. 61  n/ a     .000
12519>                          +   1. 0 02: TODD_ ALL      112. 91      15. 270 No_date   28: 04    59. 95  n/ a     .000
12520>                          +   1. 0 02: WCLAR_ MIn       1. 70        . 213 No_date   27: 53    59. 44  n/ a     .000
12521>                          SUM=  1. 0 01: TODD      121. 14      17. 643 No_date   28: 03    60. 06  n/ a     .000
12522> R0050: C00289-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12523>      SAVE HYD                1. 0 01: TODD            121. 14      17. 643 No_date   28: 03    60. 06  n/ a     .000
12524>        fname : TODD. 0050
12525>        remark: Total Flows at Todd Drain
12526> #*******************************************************************************
12527> #    Todd Pond 3
12528> #    - Rating curve obtained from Barrhaven South MSS modeling
12529> #    - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
12530> #*******************************************************************************
12531> R0050: C00290-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12532>      ROUTE RESERVOI R - >     1. 0 02: TODD            121. 14      17. 643 No_date   28: 03    60. 06  n/ a     .000
12533>                          out <=    1. 0 01: MS_ P3          121. 14      12. 815 No_date   28: 10    60. 05  n/ a     .000
12534>                          overflow <=    1. 0 03: P3- OVF           . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12535>        [ MJ SysSto= . 2728E+01   m3,  Tot Orf Vol= . 0000E+00   m3,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
12536> R0050: C00291-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12537>      ADD HYD                 1. 0 02: GreenB          54717. 81    126. 050 No_date   36: 02    34. 09  n/ a     .000
12538>                          +   1. 0 02: MS_ P3          121. 14      12. 815 No_date   28: 10    60. 05  n/ a     .000
12539>                          +   1. 0 02: P3- OVF           . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12540>                          +   1. 0 02: TODD_ MN2j        . 08        . 111 No_date   28: 00    60. 14  n/ a     .000
12541>                          +   1. 0 02: A2- MI            . 64       1. 180 No_date   28: 07    55. 89  n/ a     .000
12542>                          SUM=  1. 0 01: SN_ TO      54839. 66    126. 489 No_date   36: 02    34. 15  n/ a     .000
12543> R0050: C00292-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12544>      SAVE HYD                1. 0 01: SN_ TO      54839. 66    126. 489 No_date   36: 02    34. 15  n/ a     .000
12545>        fname : SN_ TO. 0050
12546>        remark: Total Flows at Todd Drain
12547> #
12548> # Hydrograph from Todd Drain routed to Corrigan Drain
12549> # Channel X- Section obtained from RWCA Hydraulic Model - Station 2462
12550> # 2021- 02- 19 Change the slope from 0. 033 % (as per Stantec Report 2007) to 0. 05 % so the model will be more stable and g
12551> R0050: C00293-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12552>      ROUTE CHANNEL     - >   1. 0 02: SN_ TO      54839. 66    126. 489 No_date   36: 02    34. 15  n/ a     .000
12553> *    [ RDT= 1. 00] out <-    1. 0 01: N_ TO       54839. 66    126. 325 No_date   36: 29    34. 15  n/ a     .000
12554>        [ L/ S/ n=  280. /  . 050/ . 045]
12555>        [ Vmax=  . 889: Dmax= 3. 463]
12556> R0050: C00294-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12557>      SAVE HYD                1. 0 01: N_ TO       54839. 66    126. 325 No_date   36: 29    34. 15  n/ a     .000
12558>        fname : N_ TO. 0050
12559>        remark: Total inflows at Station 2462
12560> #*******************************************************************************
12561> #    Catchment CORRIG
12562> #    - To Corrigan Drain (south of the Jock)
12563> #    - Primarily Developed (medium density)
12564> #    - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
12565> #*******************************************************************************
12566> R0050: C00295-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12567>      CONTI NUOUS STANDHYD    1. 0 01: corr1           15. 87       2. 851 No_date   28: 01    63. 61 . 780     .000
12568>        [ XI M= . 63: TI MP= . 63]
12569>        [ LOSS= 2 : CN= 77. 0]
12570>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12571>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 325. : MNI= . 013: SCI=    . 0]
12572>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12573>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
12574> R0050: C00296-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12575>      COMPUTE DUALHYD         1. 0 01: corr1           15. 87       2. 851 No_date   28: 01    63. 61  n/ a     .000
12576>        Major System   /      1. 0 02: corr1- MI         . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12577>        Minor System   \      1. 0 03: corr1- MN       15. 87       1. 818 No_date   28: 19    63. 67  n/ a     .000
12578>        [ MJ SysSto= . 5297E+03,  Tot Orf Vol= . 0000E+00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
12579> R0050: C00297-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12580>      CONTI NUOUS NASHYD      1. 0 01: corr2           12. 47        . 330 No_date   29: 10    39. 91 . 490     .000
12581>        [ CN= 77. 0: N= 3. 00: Tp= 1. 10]
12582>        [ IaREC= 4. 00: SMN= 31. 15: SMX= 207. 66: SK= . 010]
12583>        [ InterEvent Time= 12. 00]
12584> R0050: C00298-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12585>      CONTI NUOUS STANDHYD    1. 0 01: Al- Corrig      15. 75       2. 330 No_date   28: 01    55. 89 . 686     .000
12586>        [ XI M= . 42: TI MP= . 52]
12587>        [ LOSS= 2 : CN= 75. 0]
12588>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12589>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 324. : MNI= . 013: SCI=    . 0]
12590>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12591>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
12592> R0050: C00299-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12593>      COMPUTE DUALHYD         1. 0 01: Al- Corrig      15. 75       2. 330 No_date   28: 01    55. 89  n/ a     .000
12594>        Major System   /      1. 0 02: Al- MI            . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12595>        Minor System   \      1. 0 03: Al- MN          15. 75       1. 818 No_date   27: 56    56. 07  n/ a     .000
12596>        [ MJ SysSto= . 1953E+03,  Tot Orf Vol= . 0000E+00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
12597> R0050: C00300-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12598>      CONTI NUOUS NASHYD      1. 0 01: B1               2. 77        . 119 No_date   28: 09    24. 96 . 306     .000
12599>        [ CN= 56. 0: N= 3. 00: Tp=  . 23]
12600>        [ IaREC= 4. 00: SMN= 79. 69: SMX= 531. 24: SK= . 010]
12601>        [ InterEvent Time= 12. 00]
12602> R0050: C00301-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12603>      CONTI NUOUS STANDHYD    1. 0 01: A4               1. 27        . 239 No_date   28: 00    63. 95 . 785     .000
12604>        [ XI M= . 65: TI MP= . 65]
12605>        [ LOSS= 2 : CN= 75. 0]
12606>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12607>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 253. : MNI= . 013: SCI=    . 0]
12608>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12609>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
12610> R0050: C00302-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12611>      COMPUTE DUALHYD         1. 0 01: A4               1. 27        . 239 No_date   28: 00    63. 95  n/ a     .000
12612>        Major System   /      1. 0 02: A4- MI            . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12613>        Minor System   \      1. 0 03: A4- MN          1. 27        . 239 No_date   28: 00    63. 95  n/ a     .000
12614>        [ MJ SysSto= . 0000E+00,  Tot Orf Vol= . 0000E+00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
12615> R0050: C00303-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12616>      ADD HYD                 1. 0 02: Al- MI            . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12617>                          +   1. 0 02: Al- MN          15. 75       1. 818 No_date   27: 56    56. 07  n/ a     .000
12618>                          +   1. 0 02: corr1- MI         . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12619>                          +   1. 0 02: corr1- MN       15. 87       1. 818 No_date   28: 19    63. 67  n/ a     .000
12620>                          +   1. 0 02: corr2           12. 47        . 330 No_date   29: 10    39. 91  n/ a     .000
12621>                          +   1. 0 02: B1               2. 77        . 119 No_date   28: 09    24. 96  n/ a     .000
12622>                          +   1. 0 02: A4- MN           1. 27        . 239 No_date   28: 00    63. 95  n/ a     .000
12623>                          SUM=  1. 0 01: MI101         48. 13       4. 028 No_date   28: 02    52. 81  n/ a     .000
12624> R0050: C00304-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12625>      SAVE HYD                1. 0 01: MI101           48. 13       4. 028 No_date   28: 02    52. 81  n/ a     .000
12626>        fname : MI101. 0050
12627>        remark: Total Flows at MI101
12628> R0050: C00305-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12629>      ROUTE PI PE       - >     1. 0 02: MI101           48. 13       4. 028 No_date   28: 02    52. 81  n/ a     .000
12630> *    [ RDT= 1. 00] out <-    1. 0 01: 101- 102        48. 13       4. 005 No_date   28: 03    52. 81  n/ a     .000
12631>        [ L/ S/ n=  368. /  . 540/ . 013]
12632>        [ Vmax= 3. 143: Dmax= 1. 119]
12633>        [ Di n= 1. 05: Used= 1. 26]
12634> R0050: C00306-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12635>      ADD HYD                 1. 0 02: A2- MN          24. 86       1. 818 No_date   28: 39    56. 08  n/ a     .000
12636>                          +   1. 0 02: 101- 102        48. 13       4. 005 No_date   28: 03    52. 81  n/ a     .000
12637>                          SUM=  1. 0 01: MI102         72. 99       5. 823 No_date   28: 03    53. 92  n/ a     .000
12638> R0050: C00307-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12639>      SAVE HYD                1. 0 01: MI102           72. 99       5. 823 No_date   28: 03    53. 92  n/ a     .000
12640>        fname : MI102. 0050
12641>        remark: Total Flows at MI102
12642> R0050: C00308-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12643>      CONTI NUOUS STANDHYD    1. 0 01: A5               1. 60        . 312 No_date   28: 01    66. 69 . 818     .000
12644>        [ XI M= . 71: TI MP= . 71]
12645>        [ LOSS= 2 : CN= 75. 0]
12646>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
12647>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 300. : MNI= . 013: SCI=    . 0]
12648>        [ IaREC mp=  4. 00: IaREC per=  4. 00]
12649>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
12650> R0050: C00309-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12651>      ADD HYD                 1. 0 02: A4- MI            . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12652>                          +   1. 0 02: A5               1. 60        . 312 No_date   28: 01    66. 69  n/ a     .000
12653>                          SUM=  1. 0 01: A5T            1. 60        . 312 No_date   28: 01    66. 69  n/ a     .000
12654> R0050: C00310-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12655>      COMPUTE DUALHYD         1. 0 01: A5T              1. 60        . 312 No_date   28: 01    66. 69  n/ a     .000
12656>        Major System   /      1. 0 02: A5- MI            . 00        . 000 No_date   0: 00      . 00  n/ a     .000
12657>        Minor System   \      1. 0 03: A5- MN          1. 60        . 312 No_date   28: 01    66. 69  n/ a     .000
12658>        [ MJ SysSto= . 0000E+00,  Tot Orf Vol= . 0000E+00,  N- Orf=     0,  Tot Dur Orf=     0. hrs]
12659> R0050: C00311-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12660>      ROUTE PI PE       - >     1. 0 02: MI102           72. 99       5. 823 No_date   28: 03    53. 92  n/ a     .000
12661> *    [ RDT= 1. 00] out <-    1. 0 01: 102- 103        72. 99       5. 773 No_date   28: 14    53. 92  n/ a     .000
12662>        [ L/ S/ n=  504. /  . 280/ . 013]
12663>        [ Vmax= 2. 694: Dmax= 1. 453]
12664>        [ Di n= 1. 50: Used= 1. 77]
12665> R0050: C00312-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12666>      ADD HYD                 1. 0 02: 102- 103        72. 99       5. 773 No_date   28: 14    53. 92  n/ a     .000
12667>                          +   1. 0 02: A5- MN           1. 60        . 312 No_date   28: 01    66. 69  n/ a     .000
12668>                          SUM=  1. 0 01: MI103         74. 59       5. 961 No_date   28: 03    54. 19  n/ a     .000
12669> R0050: C00313-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12670>      SAVE HYD                1. 0 01: MI103           74. 59       5. 961 No_date   28: 03    54. 19  n/ a     .000
12671>        fname : MI103. 0050
12672>        remark: Total Flows at MI103
12673> R0050: C00314-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
12674>      ROUTE PI PE       - >     1. 0 02: MI103           74. 59       5. 961 No_date   28: 03    54. 19  n/ a     .000
12675> *    [ RDT
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12717>          [Mj SysSt o=. 4799E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12718> R0050: C00322- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12719>       ROUTE PI PE          - >       1. 0 02: B2- MN          12. 31       1. 029  No_date    27: 53     56. 54   n/ a      . 000
12720> *     [ RDT=  1. 00]  out <-         1. 0 01: 315- 333        12. 31       1. 029  No_date    28: 33     56. 54   n/ a      . 000
12721>          [ L/ S/ n=  254. / . 100/ . 013]
12722>          [ Vmax=  1. 220: Dmax=  . 838]
12723>          [ Di n=  1. 20: Dused=  1. 20]
12724> R0050: C00323- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12725>       CONTI NUOUS  STANDHYD    1. 0 01: B3              5. 59        . 825  No_date    28: 01     56. 26   . 690     . 000
12726>          [ XI MP=  41: TI MP=  54]
12727>          [ LOSS=  2 : CN=  75. 0]
12728>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12729>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  345. : MNI =. 013: SCI =    . 0]
12730>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12731>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12732> R0050: C00324- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12733>       COMPUTE DUALHYD          1. 0 01: B3              5. 59        . 825  No_date    28: 01     56. 26   n/ a      . 000
12734>          Maj or Syst em   /     1. 0 02: B3- MI          . 02         . 083  No_date    28: 09     56. 26   n/ a      . 000
12735>          Mi nor Syst em   \     1. 0 03: B3- MN          5. 57        . 459  No_date    27: 52     56. 28   n/ a      . 000
12736>          [ Mj SysSt o=. 2270E+03,  Tot Or f Vol =. 1279E+02,  N- Or f =       1,  Tot Dur Or f =      0. hr s]
12737> R0050: C00325- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12738>       ADD HYD                  1. 0 02: B3- MN          5. 57        . 459  No_date    27: 52     56. 28   n/ a      . 000
12739>                           +     1. 0 02: 315- 333        12. 31       1. 029  No_date    28: 33     56. 54   n/ a      . 000
12740>                      SUM=       1. 0 02: MI333           17. 88       1. 488  No_date    28: 32     56. 46   n/ a      . 000
12741> R0050: C00326- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12742>       SAVE HYD                 1. 0 01: MI333           17. 88       1. 488  No_date    28: 32     56. 46   n/ a      . 000
12743>          fname:  MI333. 0050
12744>          remark: Total  Flows  at  MI333
12745> R0050: C00327- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12746>       ROUTE PI PE          - >       1. 0 02: MI333           17. 88       1. 488  No_date    28: 32     56. 46   n/ a      . 000
12747> *     [ RDT=  1. 00]  out <-         1. 0 01: 333- 335        17. 88       1. 479  No_date    28: 19     56. 46   n/ a      . 000
12748>          [ L/ S/ n=  251. / . 100/ . 013]
12749>          [ Vmax=  1. 302: Dmax=  1. 057]
12750>          [ Di n=  1. 20: Dused=  1. 29]
12751> R0050: C00328- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12752>       ROUTE PI PE          - >       1. 0 02: 333- 335        17. 88       1. 479  No_date    28: 19     56. 46   n/ a      . 000
12753> *     [ RDT=  1. 00]  out <-         1. 0 01: 335- 338        17. 88       1. 478  No_date    28: 16     56. 46   n/ a      . 000
12754>          [ L/ S/ n=  185. / . 100/ . 013]
12755>          [ Vmax=  1. 300: Dmax=  1. 054]
12756>          [ Di n=  1. 20: Dused=  1. 28]
12757> R0050: C00329- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12758>       ROUTE PI PE          - >       1. 0 02: 335- 338        17. 88       1. 478  No_date    28: 16     56. 46   n/ a      . 000
12759>          [ RDT=  1. 00]  out <-         1. 0 01: 338- 340        17. 88       1. 454  No_date    28: 18     56. 46   n/ a      . 000
12760>          [ L/ S/ n=  233. / . 100/ . 013]
12761>          [ Vmax=  1. 330: Dmax=  . 979]
12762>          [ Di n=  1. 35: Dused=  1. 35]
12763> R0050: C00330- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12764>       CONTI NUOUS  STANDHYD    1. 0 01: B4              7. 60        1. 094  No_date    28: 02     56. 26   . 690     . 000
12765>          [ XI MP=  41: TI MP=  54]
12766>          [ LOSS=  2 : CN=  75. 0]
12767>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12768>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  388. : MNI =. 013: SCI =    . 0]
12769>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12770>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12771> R0050: C00331- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12772>       COMPUTE DUALHYD          1. 0 01: B4              7. 60        1. 094  No_date    28: 02     56. 26   n/ a      . 000
12773>          Maj or Syst em   /     1. 0 02: B4- MI          . 00         . 000  No_date    28: 00     . 00     n/ a      . 000
12774>          Mi nor Syst em   \     1. 0 03: B4- MN          7. 60        . 655  No_date    27: 53     56. 27   n/ a      . 000
12775>          [ Mj SysSt o=. 2780E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12776> R0050: C00332- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12777>       ADD HYD                  1. 0 02: 338- 340        17. 88       1. 454  No_date    28: 18     56. 46   n/ a      . 000
12778>                           +     1. 0 02: B4- MN          7. 60        . 655  No_date    27: 53     56. 27   n/ a      . 000
12779>                      SUM=       1. 0 02: MI340           25. 48       2. 109  No_date    28: 18     56. 41   n/ a      . 000
12780> R0050: C00333- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12781>       SAVE HYD                 1. 0 01: MI340           25. 48       2. 109  No_date    28: 18     56. 41   n/ a      . 000
12782>          fname:  MI340. 0050
12783>          remark: Total  Flows  at  MI340
12784> R0050: C00334- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12785>       ROUTE PI PE          - >       1. 0 02: MI340           25. 48       2. 109  No_date    28: 18     56. 41   n/ a      . 000
12786>          [ RDT=  1. 00]  out <-         1. 0 01: 340- 104        25. 48       2. 090  No_date    28: 18     56. 41   n/ a      . 000
12787>          [ L/ S/ n=  240. / . 150/ . 013]
12788>          [ Vmax=  1. 723: Dmax=  . 918]
12789>          [ Di n=  1. 65: Dused=  1. 65]
12790> R0050: C00335- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12791>       ADD HYD                  1. 0 02: 340- 104        25. 48       2. 090  No_date    28: 18     56. 41   n/ a      . 000
12792>                           +     1. 0 02: MI104           105. 04      9. 444  No_date    28: 04     56. 49   n/ a      . 000
12793>                      SUM=       1. 0 01: MI104T          130. 52      11. 391 No_date    28: 07     56. 48   n/ a      . 000
12794> R0050: C00336- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12795>       ROUTE PI PE          - >       1. 0 02: MI104T          130. 52      11. 391 No_date    28: 07     56. 48   n/ a      . 000
12796> *     [ RDT=  1. 00]  out <-         1. 0 01: 104- 105        130. 52      11. 118 No_date    28: 10     56. 48   n/ a      . 000
12797>          [ L/ S/ n=  380. / . 100/ . 013]
12798>          [ Vmax=  2. 107: Dmax=  2. 003]
12799>          [ WIDTH=  2. 36: WDTH=  2. 70]
12800> R0050: C00337- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12801>       CONTI NUOUS  STANDHYD    1. 0 01: B5              2. 20        . 390  No_date    28: 00     60. 29   . 740     . 000
12802>          [ XI MP=  57: TI MP=  57]
12803>          [ LOSS=  2 : CN=  75. 0]
12804>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12805>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  187. : MNI =. 013: SCI =    . 0]
12806>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12807>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12808> R0050: C00338- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12809>       COMPUTE DUALHYD          1. 0 01: B5              2. 20        . 390  No_date    28: 00     60. 29   n/ a      . 000
12810>          Maj or Syst em   /     1. 0 02: B5- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12811>          Mi nor Syst em   \     1. 0 03: B5- MN          2. 20        . 260  No_date    27: 53     60. 60   n/ a      . 000
12812>          [ Mj SysSt o=. 5913E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12813> R0050: C00339- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12814>       CONTI NUOUS  STANDHYD    1. 0 01: A8              . 96         . 198  No_date    28: 00     66. 69   . 818     . 000
12815>          [ XI MP=  71: TI MP=  71]
12816>          [ LOSS=  2 : CN=  75. 0]
12817>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12818>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  186. : MNI =. 013: SCI =    . 0]
12819>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12820>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12821> R0050: C00340- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12822>       ADD HYD                  1. 0 02: A6- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12823>                           +     1. 0 02: A8              . 96         . 198  No_date    28: 00     66. 69   n/ a      . 000
12824>                      SUM=       1. 0 01: A8T             . 96         . 198  No_date    28: 00     66. 69   n/ a      . 000
12825> R0050: C00341- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12826>       COMPUTE DUALHYD          1. 0 01: A8T             . 96         . 198  No_date    28: 00     66. 69   n/ a      . 000
12827>          Maj or Syst em   /     1. 0 02: A8- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12828>          Mi nor Syst em   \     1. 0 03: A8- MN          . 96         . 198  No_date    28: 00     66. 69   n/ a      . 000
12829>          [ Mj SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12830> R0050: C00342- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12831>       ADD HYD                  1. 0 02: 104- 105        130. 52      11. 118 No_date    28: 10     56. 48   n/ a      . 000
12832>                           +     1. 0 02: B5- MN          2. 20        . 260  No_date    27: 53     60. 60   n/ a      . 000
12833>                           +     1. 0 02: A8- MN          . 96         . 198  No_date    28: 00     66. 69   n/ a      . 000
12834>                           +     1. 0 02: TODD_MN3        . 00         . 006  No_date    28: 00     60. 13   n/ a      . 000
12835>                      SUM=       1. 0 01: MI105           133. 68      11. 441 No_date    28: 10     56. 62   n/ a      . 000
12836> R0050: C00343- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12837>       SAVE HYD                 1. 0 01: MI105           133. 68      11. 441 No_date    28: 10     56. 62   n/ a      . 000
12838>          fname:  MI105. 0050
12839>          remark: Total  Flows  at  MI105
12840> R0050: C00344- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12841> *     DI VERT HYD          - >       1. 0 02: A8- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12842>                diverted <=         1. 0 02: A8- MI - JR     . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12843>                diverted <=         1. 0 03: A8- MI - B6     . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12844> R0050: C00345- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12845>       DI VERT HYD          - >       1. 0 01: MI105           133. 68      11. 441 No_date    28: 10     56. 62   n/ a      . 000
12846>                diverted <=         1. 0 02: MI105- JR       35. 42       8. 432  No_date    28: 10     56. 62   n/ a      . 000
12847>                diverted <=         1. 0 03: MI105- B6       98. 26       3. 009  No_date    28: 10     56. 62   n/ a      . 000
12848> R0050: C00346- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12849>       CONTI NUOUS  STANDHYD    1. 0 01: B7              7. 19        1. 124  No_date    28: 01     56. 26   . 690     . 000
12850>          [ XI MP=  41: TI MP=  54]
12851>          [ LOSS=  2 : CN=  75. 0]
12852>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12853>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  211. : MNI =. 013: SCI =    . 0]
12854>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12855>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12856> R0050: C00347- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12857>       ADD HYD                  1. 0 02: B4- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12858>                           +     1. 0 02: B7              7. 19        1. 124  No_date    28: 01     56. 26   n/ a      . 000
12859>                      SUM=       1. 0 01: B7- B4MI        7. 19        1. 124  No_date    28: 01     56. 26   n/ a      . 000
12860> R0050: C00348- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12861>       COMPUTE DUALHYD          1. 0 01: B7- B4MI        7. 19        1. 124  No_date    28: 01     56. 26   n/ a      . 000
12862>          Maj or Syst em   /     1. 0 02: B7R- MI         . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12863>          Mi nor Syst em   \     1. 0 03: B7R- MN         7. 19        . 629  No_date    27: 51     56. 37   n/ a      . 000
12864>          [ Mj SysSt o=. 2888E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12865> R0050: C00349- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12866>       ROUTE PI PE          - >       1. 0 02: B7R- MN         7. 19        . 629  No_date    27: 51     56. 37   n/ a      . 000
12867> *     [ RDT=  1. 00]  out <-         1. 0 01: 360- 106A       7. 19        . 629  No_date    28: 28     56. 37   n/ a      . 000
12868>          [ L/ S/ n=  167. / . 100/ . 013]
12869>          [ Vmax=  1. 089: Dmax=  . 665]
12870>          [ Di n=  1. 05: Dused=  1. 05]
12871> R0050: C00350- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12872>       CONTI NUOUS  STANDHYD    1. 0 01: B6              3. 29        . 535  No_date    28: 00     56. 26   . 690     . 000
12873>          [ XI MP=  41: TI MP=  54]
12874>          [ LOSS=  2 : CN=  75. 0]
12875>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12876>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  148. : MNI =. 013: SCI =    . 0]
12877>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12878>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12879> R0050: C00351- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12880>       COMPUTE DUALHYD          1. 0 01: B6              3. 29        . 535  No_date    28: 00     56. 26   n/ a      . 000
12881>          Maj or Syst em   /     1. 0 02: B6- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12882>          Mi nor Syst em   \     1. 0 03: B6- MN          3. 29        . 064  No_date    27: 33     56. 32   n/ a      . 000
12883>          [ Mj SysSt o=. 6238E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12884> R0050: C00352- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12885>       CONTI NUOUS  STANDHYD    1. 0 01: EX- LAND        32. 50       4. 637  No_date    28: 02     56. 33   . 691     . 000
12886>          [ XI MP=  50: TI MP=  50]
12887>          [ LOSS=  2 : CN=  74. 0]
12888>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12889>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  465. : MNI =. 013: SCI =    . 0]
12890>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12891>          [ SMN=  36. 67:  SMAX=244. 49:  SK=  . 010]
12892> R0050: C00353- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12893>       COMPUTE DUALHYD          1. 0 01: EX- LAND        32. 50       4. 637  No_date    28: 02     56. 33   n/ a      . 000
12894>          Maj or Syst em   /     1. 0 02: EX- LAND- MI    . 76         1. 533  No_date    28: 06     56. 33   n/ a      . 000
12895>          Mi nor Syst em   \     1. 0 03: EX- LAND- MN    31. 74       2. 275  No_date    27: 49     56. 55   n/ a      . 000
12896>          [ Mj SysSt o=. 1365E+04,  Tot Or f Vol =. 4274E+03,  N- Or f =       1,  Tot Dur Or f =      0. hr s]
12897> R0050: C00354- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12898>       ADD HYD                  1. 0 02: B7R- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12899>                           +     1. 0 02: EX- LAND- MI    . 76         1. 533  No_date    28: 06     56. 33   n/ a      . 000
12900>                           +     1. 0 02: B5- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12901>                           +     1. 0 02: B6- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12902>                           +     1. 0 02: B6- MN          3. 29        . 064  No_date    27: 33     56. 32   n/ a      . 000
12903>                           +     1. 0 02: A8- MI - B6     . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12904>                      SUM=       1. 0 01: B6- B7ExMI      4. 05        1. 597  No_date    28: 06     56. 32   n/ a      . 000
12905> R0050: C00355- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12906>       COMPUTE DUALHYD          1. 0 01: B6- B7ExMI      4. 05        1. 597  No_date    28: 06     56. 32   n/ a      . 000
12907>          Maj or Syst em   /     1. 0 02: B6R- MI         . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12908>          Mi nor Syst em   \     1. 0 03: B6R- MN         4. 05        . 064  No_date    27: 33     56. 36   n/ a      . 000
12909>          [ Mj SysSt o=. 4274E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12910> R0050: C00356- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12911>       ROUTE PI PE          - >       1. 0 02: MI105- B6       98. 26       3. 009  No_date    28: 10     56. 62   n/ a      . 000
12912>          [ RDT=  1. 00]  out <-         1. 0 01: 105- 106A       98. 26       3. 009  No_date    28: 07     56. 62   n/ a      . 000
12913>          [ L/ S/ n=  208. / . 100/ . 013]
12914>          [ Vmax=  1. 597: Dmax=  1. 249]
12915>          [ Di n=  1. 80: Dused=  1. 80]
12916> R0050: C00357- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12917>       ADD HYD                  1. 0 02: 360- 106A       7. 19        . 629  No_date    28: 28     56. 37   n/ a      . 000
12918>                           +     1. 0 02: 105- 106A       98. 26       3. 009  No_date    28: 07     56. 62   n/ a      . 000
12919>                           +     1. 0 02: B6R- MN         4. 05        . 064  No_date    27: 33     56. 36   n/ a      . 000
12920>                           +     1. 0 02: B6R- MI         . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12921>                      SUM=       1. 0 01: MI106A          109. 50      3. 701  No_date    28: 10     56. 59   n/ a      . 000
12922> R0050: C00358- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12923>       SAVE HYD                 1. 0 01: MI106A          109. 50      3. 701  No_date    28: 10     56. 59   n/ a      . 000
12924>          fname:  MI106A. 0050
12925>          remark: Total  Flows  at  MI106A
12926> R0050: C00359- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12927>       ROUTE PI PE          - >       1. 0 02: MI106A          109. 50      3. 701  No_date    28: 10     56. 59   n/ a      . 000
12928> *     [ RDT=  1. 00]  out <-         1. 0 01: 106A- 106       109. 50      3. 702  No_date    27: 59     56. 59   n/ a      . 000
12929>          [ L/ S/ n=  190. / . 100/ . 013]
12930>          [ Vmax=  1. 635: Dmax=  1. 487]
12931>          [ Di n=  1. 80: Dused=  1. 81]
12932> R0050: C00360- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12933>       CONTI NUOUS  STANDHYD    1. 0 01: A9              2. 44        . 481  No_date    28: 00     66. 69   . 818     . 000
12934>          [ XI MP=  71: TI MP=  71]
12935>          [ LOSS=  2 : CN=  75. 0]
12936>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12937>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  262. : MNI =. 013: SCI =    . 0]
12938>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12939>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12940> R0050: C00361- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12941>       COMPUTE DUALHYD          1. 0 01: A9              2. 44        . 481  No_date    28: 00     66. 69   n/ a      . 000
12942>          Maj or Syst em   /     1. 0 02: A9- MI          . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12943>          Mi nor Syst em   \     1. 0 03: A9- MN          2. 44        . 481  No_date    28: 00     66. 69   n/ a      . 000
12944> R0050: C00362- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12945>       ADD HYD                  1. 0 02: 106A- 106       109. 50      3. 702  No_date    27: 59     56. 59   n/ a      . 000
12946>                           +     1. 0 02: A9- MN          2. 44        . 481  No_date    28: 00     66. 69   n/ a      . 000
12947>                      SUM=       1. 0 01: MI106           111. 94      4. 177  No_date    28: 00     56. 81   n/ a      . 000
12948> R0050: C00363- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12949>       SAVE HYD                 1. 0 01: MI106           111. 94      4. 177  No_date    28: 00     56. 81   n/ a      . 000
12950>          fname:  MI106. 0050
12951>          remark: Total  Flows  at  MI106
12952> R0050: C00364- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12953>       ROUTE PI PE          - >       1. 0 02: MI106           111. 94      4. 177  No_date    28: 00     56. 81   n/ a      . 000
12954> *     [ RDT=  1. 00]  out <-         1. 0 01: 106- 107        111. 94      4. 129  No_date    28: 00     56. 81   n/ a      . 000
12955>          [ L/ S/ n=  123. / . 100/ . 013]
12956>          [ Vmax=  1. 685: Dmax=  1. 556]
12957>          [ Di n=  1. 80: Dused=  1. 903]
12958> R0050: C00365- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12959>       CONTI NUOUS  STANDHYD    1. 0 01: A10             4. 14        . 602  No_date    28: 01     53. 20   . 653     . 000
12960>          [ XI MP=  35: TI MP=  47]
12961>          [ LOSS=  2 : CN=  75. 0]
12962>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12963>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
12964>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12965>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12966> R0050: C00366- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12967>       COMPUTE DUALHYD          1. 0 01: A10             4. 14        . 602  No_date    28: 01     53. 20   n/ a      . 000
12968>          Maj or Syst em   /     1. 0 02: A10- MI         . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12969>          Mi nor Syst em   \     1. 0 03: A10- MN         4. 14        . 310  No_date    27: 50     53. 25   n/ a      . 000
12970>          [ Mj SysSt o=. 1897E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12971> R0050: C00367- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12972>       CONTI NUOUS  STANDHYD    1. 0 01: A11             10. 61       1. 720  No_date    28: 02     60. 69   . 745     . 000
12973>          [ XI MP=  53: TI MP=  62]
12974>          [ LOSS=  2 : CN=  75. 0]
12975>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
12976>          [ I mpervi ous   area:  1 Ai mp=  1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
12977>          [ I aREC i mp=   4. 00:  I aRECper =   4. 00]
12978>          [ SMN=  33. 81:  SMAX=225. 43:  SK=  . 010]
12979> R0050: C00368- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12980>       COMPUTE DUALHYD          1. 0 01: A11             10. 61       1. 720  No_date    28: 02     60. 69   n/ a      . 000
12981>          Maj or Syst em   /     1. 0 02: A11- MI         . 00         . 000  No_date    0: 00      . 00     n/ a      . 000
12982>          Mi nor Syst em   \     1. 0 03: A11- MN         10. 61       . 993  No_date    27: 52     60. 86   n/ a      . 000
12983>          [ Mj SysSt o=. 4540E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =       0,  Tot Dur Or f =      0. hr s]
12984> R0050: C00369- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12985>       ADD HYD                  1. 0 02: 106- 107        111. 94      4. 129  No_date    28: 00     56. 81   n/ a      . 000
12986>                           +     1. 0 02: A10- MN         4. 14        . 310  No_date    27: 50     53. 25   n/ a      . 000
12987>                           +     1. 0 02: A11- MN         10. 61       . 993  No_date    27: 52     60. 86   n/ a      . 000
12988>                      SUM=       1. 0 01: MI107           126. 69      5. 432  No_date    28: 00     57. 03   n/ a      . 000
12989> R0050: C00370- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12990>       SAVE HYD                 1. 0 01: MI107           126. 69      5. 432  No_date    28: 00     57. 03   n/ a      . 000
12991>          fname:  MI107. 0050
12992>          remark: Total  Flows  at  MI107
12993> R0050: C00371- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
12994>       ROUTE PI PE          - >       1. 0 02: MI107           126. 69      5. 432  No_date    28: 00     57. 03   n/ a      . 000
12995> *     [ RDT=  1. 00]  out <-         1. 0 01: 107- 119        126. 69      5. 345  No_date    28: 00     57. 03   n/ a      . 000
12996>          [ L/ S/ n=  114. / . 120/ . 013]
12997>          [ Vmax=  1. 927: Dmax=  1. 660]
12998>          [ Di n=  1. 80: Dused=  2. 02]
12999> R0050: C00372- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
13000>       ROUTE PI PE          - >       1. 0 02: 107- 119        126. 69      5. 345  No_date    28: 00     57. 03   n/ a      . 000
13001> *     [ RDT=  1. 00]  out <-         1. 0 01: 119- 108        126. 69      5. 334  No_date    28: 01     57. 03   n/ a      . 000
13002>          [ L/ S/ n=  66. / . 120/ . 013]
13003>          [ Vmax=  1. 919: Dmax=  1. 650]
13004>          [ Di n=  1. 80: Dused=  2. 01]
13005> R0050: C00373- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWFcms
13006>       CONTI NUOUS  STANDHYD    1. 0 01: A12             12. 29       1. 938  No_date    28: 01     56. 26   . 690     . 000
13007>          [ XI MP=  41: TI MP=  54]
13008>          [ LOSS=  2 : CN=  75. 0]
13009>          [ Pervi ous      area:  1 Aper =  4. 67: SLPP=1. 00: LGP=   40. : MNP=  . 250: SCP=    . 0]
13010>          [ I mpervi ous   area:  1 
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```
13091> #     - Tributary Drainage Area to MSS Pond 1 = 145 ha
13092> #*****************************************************************************
13093> #
13094> # Hydrograph from Corrigan Drain routed to Jockvale Road
13095> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
13096> #
13097> R0050: C00387-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13098>       ROUTE CHANNEL   ->      1. 0  02: corrig       55019. 59   126. 926  No_date    36: 27    34. 22    n/a       .000
13099>       [ RDT= 1. 00]  out <-      1. 0  01: N_MI       55019. 59   126. 908  No_date    36: 31    34. 22    n/a       .000
13100>       [ L/ S/ m=  580. / . 445/ . 045]
13101>       [ Vmax= 2. 065: Dmax= 1. 981]
13102> #*****************************************************************************
13103> #     Catchment MILLS
13104> #     - To SWM Facility north of the Jock
13105> #     - Primarily residential development
13106> #*****************************************************************************
13107> R0050: C00388-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13108>       CONTINUOUS STANDHYD      1. 0  01: MILLS          175. 99    17. 756  No_date    28: 06    50. 66    . 622     .000
13109>       [ XIMP= .38: TIMP= .38]
13110>       [ LOSS= 2 : CN= 74. 0]
13111>       [ Pervious      area: IAmp= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
13112>       [ Impervious    area: IAmp= 1. 57: SLPI= 1. 00: LGI= 1118. : MNI= . 013: SCI=    . 0]
13113>       [ IaREC mp=   4. 00:  IaRECper=   4. 00]
13114>       [ SMI N= 36. 67:  SMAX= 244. 49:  SK= . 010]
13115> #*****************************************************************************
13116> #     Chapman Mills SWM Pond
13117> #     - Rating curve obtained from CCL hydraulic modeling
13118> #*****************************************************************************
13119> R0050: C00389-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13120>       ROUTE RESERVOIR  ->      1. 0  02: SN_MI         55195. 58   127. 533  No_date    36: 30    34. 27    n/a       .000
13121>                        out <=      1. 0  01: MILL_P       153. 87     4. 050  No_date    28: 11    50. 66    n/a       .000
13122>                  overflow <=      1. 0  03: MIL- OV        22. 12    12. 440  No_date    28: 11    50. 66    n/a       .000
13123>       [ MxSt ol Ele= 6. 2310E+01  m3,  Tot Ov Vol= 1. 121E+01  m3,  N- Ov f=     2,  Tot Dur Ov f=     1. hrs]
13124> R0050: C00390-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13125>       ADD HYD                  1. 0  02: N_MI         55019. 59   126. 908  No_date    36: 31    34. 22    n/a       .000
13126>                           +      1. 0  02: MIL- OV        22. 12    12. 440  No_date    28: 11    50. 66    n/a       .000
13127>                           +      1. 0  02: MILL_P       153. 87     4. 050  No_date    28: 11    50. 66    n/a       .000
13128>                      SUM=        1. 0  01: SN_MI         55195. 58   127. 533  No_date    36: 30    34. 27    n/a       .000
13129> R0050: C00391-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13130>       SAVE HYD                 1. 0  01: SN_MI         55195. 58   127. 533  No_date    36: 30    34. 27    n/a       .000
13131>        fname : SN_MI . 0050
13132>        remark: Total Flows at Jockvale Road
13133> #
13134> # Hydrograph from Jockvale Road routed to Heart's Desire
13135> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
13136> #
13137> R0050: C00392-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13138>       ROUTE CHANNEL   ->      1. 0  02: SN_MI         55195. 58   127. 533  No_date    36: 30    34. 27    n/a       .000
13139>       [ RDT= 1. 00]  out <-      1. 0  01: N_DE         55195. 58   127. 235  No_date    36: 43    34. 27    n/a       .000
13140>       [ L/ S/ m= 1962. / . 223/ . 045]
13141>       [ Vmax= 1. 577: Dmax= 2. 490]
13142> #*****************************************************************************
13143> #     Catchment DESIRE
13144> #     - To Jock River (north of the Jock)
13145> #     - Rural-estate subdivision (Heart's Desire Community)
13146> #*****************************************************************************
13147> R0050: C00393-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13148>       CONTINUOUS STANDHYD      1. 0  01: DESIRE          23. 78     2. 563  No_date    28: 03    46. 85    . 575     .000
13149>       [ XIMP= .25: TIMP= .25]
13150>       [ LOSS= 2 : CN= 77. 0]
13151>       [ Pervious      area: IAmp= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
13152>       [ Impervious    area: IAmp= 1. 57: SLPI= 1. 00: LGI= 400. : MNI= . 013: SCI=    . 0]
13153>       [ IaREC mp=   4. 00:  IaRECper=   4. 00]
13154>       [ SMI N= 31. 15:  SMAX= 207. 66:  SK= . 010]
13155> #*****************************************************************************
13156> #     Catchment JOCKVA
13157> #     - To Jockvale SWM Facility
13158> #     - Residential development & golf course
13159> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
13160> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
13161> #*****************************************************************************
13162> R0050: C00394-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13163>       CONTINUOUS STANDHYD      1. 0  01: JOCKVA          225. 13    25. 253  No_date    28: 07    56. 33    . 691     .000
13164>       [ XIMP= .50: TIMP= .50]
13165>       [ LOSS= 2 : CN= 74. 0]
13166>       [ Pervious      area: IAmp= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
13167>       [ Impervious    area: IAmp= 1. 57: SLPI= 1. 00: LGI= 1311. : MNI= . 013: SCI=    . 0]
13168>       [ IaREC mp=   4. 00:  IaRECper=   4. 00]
13169>       [ SMI N= 36. 67:  SMAX= 244. 49:  SK= . 010]
13170> R0050: C00395-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13171>       ADD HYD                  1. 0  02: EX- LAND_MI       31. 74     2. 275  No_date    27: 49    56. 55    n/a       .000
13172>                           +      1. 0  02: JOCKVA          225. 13    25. 253  No_date    28: 07    56. 33    n/a       .000
13173>                           +      1. 0  02: B2- MI             . 00       . 000  No_date     0: 00     . 00    n/a       .000
13174>                           +      1. 0  02: B3- MI             . 02       . 083  No_date    28: 09    56. 26    n/a       .000
13175>                      SUM=        1. 0  01: JOCKVA- TO       256. 89    27. 528  No_date    28: 07    56. 36    n/a       .000
13176> R0050: C00396-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13177>       SAVE HYD                 1. 0  01: JOCKVA- TO       256. 89    27. 528  No_date    28: 07    56. 36    n/a       .000
13178>        fname : JOCKVA- TO. 0050
13179>        remark: Total Flows at KB first pond
13180> #*****************************************************************************
13181> #     Jockvale SWM Facility
13182> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
13183> #*****************************************************************************
13184> R0050: C00397-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13185>       ROUTE RESERVOIR  ->      1. 0  01: JOCK_P         256. 89    27. 528  No_date    28: 07    56. 36    n/a       .000
13186>                        out <=      1. 0  01: JOCK_P         256. 89    10. 991  No_date    28: 38    56. 36    n/a       .000
13187>                  overflow <=      1. 0  03: JO- OVF             . 00       . 000  No_date     0: 00     . 00    n/a       .000
13188>       [ MxSt ol Ele= 5928E+01  m3,  Tot Ov Vol= . 0000E+00  m3,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
13189> R0050: C00398-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13190>       ADD HYD                  1. 0  02: N_DE         55195. 58   127. 235  No_date    36: 43    34. 27    n/a       .000
13191>                           +      1. 0  02: DESIRE          23. 78     2. 563  No_date    28: 03    46. 85    n/a       .000
13192>                           +      1. 0  02: JO- OVF             . 00       . 000  No_date     0: 00     . 00    n/a       .000
13193>                           +      1. 0  02: JOCK_P          256. 89    10. 991  No_date    28: 38    56. 36    n/a       .000
13194>                      SUM=        1. 0  01: SN_DE           55476. 26   128. 174  No_date    36: 42    34. 38    n/a       .000
13195> R0050: C00399-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13196>       SAVE HYD                 1. 0  01: SN_DE           55476. 26   128. 174  No_date    36: 42    34. 38    n/a       .000
13197>        fname : SN_DE. 0050
13198>        remark: Total Flows at Heart's Desire
13199> #
13200> # Hydrograph from Heart's Desire routed to Rideau River
13201> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
13202> #
13203> R0050: C00400-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13204>       ROUTE CHANNEL   ->      1. 0  02: SN_DE         55476. 26   128. 174  No_date    36: 42    34. 38    n/a       .000
13205>       [ RDT= 1. 00]  out <-      1. 0  01: NI           55476. 26   128. 160  No_date    36: 45    34. 38    n/a       .000
13206>       [ L/ S/ m=  563. / . 967/ . 045]
13207>       [ Vmax= 2. 123: Dmax= 1. 248]
13208> #*****************************************************************************
13209> #     Catchment S-2
13210> #     - To Jock River (north and south)
13211> #     - Undeveloped floodplain and river
13212> #*****************************************************************************
13213> R0050: C00401-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13214>       CONTINUOUS NASHYD        1. 0  01: S-2            102. 94     4. 795  No_date    28: 20    35. 39    . 434     .000
13215>       [ CN= 72. 0:  N= 3. 00:  Tp=   . 40]
13216>       [ IaREC= 4. 00:  SMI N= 39. 75:  SMAX= 264. 99:  SK= . 010]
13217>       [ InterEventTime= 12. 00]
13218> R0050: C00402-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13219>       ADD HYD                  1. 0  02: NI           55476. 26   128. 160  No_date    36: 45    34. 38    n/a       .000
13220>                           +      1. 0  02: S-2            102. 94     4. 795  No_date    28: 20    35. 39    n/a       .000
13221>                      SUM=        1. 0  01: SN_NI           55579. 20   128. 417  No_date    36: 44    34. 38    n/a       .000
13222> R0050: C00403-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13223>       SAVE HYD                 1. 0  01: SN_NI           55579. 20   128. 417  No_date    36: 44    34. 38    n/a       .000
13224>        fname : SN_NI. 0050
13225>        remark: Total Flows at Rideau River
13226> ############################################################################
13227>  ** END OF RUN :    99
13228>
13229> ************************************************************************************************************
13230>
13231>
13232>
13233>
13234>
13235>  RUN#: COMMAND#
13236> R0100: C00001-------------------------------------------------------------------------------------------------
13237>       START
13238>       [ TZERO =      . 00 hrs on          0]
13239>       [ METOUT=    2     ( 1= imperial,  2= metric output) ]
13240>       [ NSTORM=    1 ]
13241>       [ NRUN  = 0100 ]
13242> ************************************************************************************************************
13243> #   SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
13244> ************************************************************************************************************
13245> # Project Name: [Jock River]      Project Number: [1474- 16]
13246> #  Date          : 04- 03- 2021
13247> #  Modeller      : [ MM]
13248> #  Company       : JFSA inc.
13249> #  License #     :  2549237
13250> ************************************************************************************************************
13251> # CALIBRATION OF SUMMER MODEL PARAMETERS
13252> # USING CONTINUOUS SIMULATIONS
13253> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
13254> # Use data collected from May 1st to July 14, 2003
13255> # 2020- 11- 30  change TMISTO in COMPUTE DUALHYD (TMISTO = 0. 1 instead of 0. 0001)
13256> # 2020- 12- 01  correct pond curve values
13257> # 2020- 12- 01  change W_CLAR_BRAZ XIMP to 0. 55,  SLPI= 0. 5[ ( % )  ( impervious slope) ,  and LGI up to 700m
13258> # 2021- 02- 19  Change the slope for ROUTE CHANNEL Station 2462 (NHYDout= [ "N_TO" ] , NHYDin= [ "SN_TO" ] ) from 0. 033 % (as per S
13259> # 2021- 02- 19  Change the slope for ROUTE CHANNEL Station 5002 (NHYDout= [ "N_WC" ] , NHYDin= [ "SN_CE" ] ) from 0. 01 % (as per St
13260> #
13261> R0100: C00002-------------------------------------------------------------------------------------------------
13262>       READ STORM
13263>        Filename = storm 001
13264>        Comment  = Pluie SCS de 24 hres 1: 100 ans pour Ottawa CDA
13265>        [ SDT= 10. 00: SDUR=  24. 00: PTOT=  88. 57]
13266> R0100: C00003-------------------------------------------------------------------------------------------------
13267>       MODIFY STORM
13268>        [ REACT=  1. 00: TSHIFT= 960. 00  min]
13269>        [ SDT= 10. 00: SDUR=  40. 00: PTOT=  88. 57]
13270> R0100: C00004-------------------------------------------------------------------------------------------------
13271>       DEFAULT VALUES
13272>        Filename = T: \PROJ\ 1474- 16\ Design\ 20201026- QuantityControlAnalysis\ SWMHYMO_SMR- Model\ updated3\ CitiGate. DEF
13273>        ICASEdv  = 1 (read and print data)
13274>        FileTitle= File comment:  [ Based onvarious calibration exercises in Onta
13275>                   THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
13276>        Horton's infiltration equation parameters:
13277>        [ Fo= 76. 20  mm/ hr]  [ Fc= 13. 20  mm/ hr]  [ DCAY= 4. 14 / hr]  [ F=   . 00  mm]
13278>        Parameters for PERVIOUS surfaces in STANDHYD:
13279>        [ IAper=    4. 67  mm]  [ LGP= 50. 00  m]  [ MNP= . 250]
13280>        Parameters for IMPERVIOUS surfaces in STANDHYD:
13281>        [ IAimp=    1. 57  mm]  [ CLI= 1. 50]  [ MNI= . 013]
13282>        Parameters used in NASHYD:
13283>        [ Ia=    4. 67  mm]  [ N= 3. 00]
13284>        Average monthly Pan Evaporation data in     (mm)
13285>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
13286>     . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00
13287>        Average monthly Potential Evapotranspiration in     (mm)
13288>     JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
13289>     . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00    . 00
13290> R0100: C00005-------------------------------------------------------------------------------------------------
13291>       COMPUTE API
13292>        [ APIini= 4. 60. 00:  APIkdy= . 8500:  APIkdt= . 9989]
13293>        [ APImax= 119. 84:  APIavg= 69. 19:  APImin= 44. 87]
13294> #
13295> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13296> # of 1. 32
13297> R0100: C00006-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13298>       CONTINUOUS NASHYD        1. 0  01: JR_HW          3680. 00    21. 616  No_date    36: 52    35. 18    . 397     .000
13299>       [ CN= 64. 0:  N= 3. 00:  Tp= 7. 13]
13300>       [ IaREC= 4. 00:  SMI N= 57. 05:  SMAX= 380. 32:  SK= . 010]
13301>       [ InterEventTime= 12. 00]
13302> #
13303> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13304> # of 1. 32
13305> R0100: C00007-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13306>       CONTINUOUS NASHYD        1. 0  01: SW_13           971. 00     8. 203  No_date    32: 33    32. 84    . 371     .000
13307>       [ CN= 61. 0:  N= 3. 00:  Tp= 3. 56]
13308>       [ IaREC= 4. 00:  SMI N= 64. 50:  SMAX= 430. 01:  SK= . 010]
13309>       [ InterEventTime= 12. 00]
13310> #
13311> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13312> # of 1. 80
13313> R0100: C00008-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13314>       CONTINUOUS NASHYD        1. 0  01: JR_GWM          3074. 00    10. 428  No_date    39: 59    28. 29    . 319     .000
13315>       [ CN= 55. 0:  N= 3. 00:  Tp= 11. 33]
13316>       [ IaREC= 4. 00:  SMI N= 83. 24:  SMAX= 554. 96:  SK= . 010]
13317>       [ InterEventTime= 12. 00]
13318> R0100: C00009-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13319>       CONTINUOUS NASHYD        1. 0  01: JR_ASH          1781. 00    19. 695  No_date    32: 38    42. 49    . 480     .000
13320>       [ CN= 72. 0:  N= 3. 00:  Tp= 3. 91]
13321>       [ IaREC= 4. 00:  SMI N= 39. 75:  SMAX= 264. 99:  SK= . 010]
13322>       [ InterEventTime= 12. 00]
13323> R0100: C00010-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13324>       CONTINUOUS NASHYD        1. 0  01: SW_11           500. 00    10. 735  No_date    29: 21    36. 76    . 415     .000
13325>       [ CN= 66. 0:  N= 3. 00:  Tp= 1. 24]
13326>       [ IaREC= 4. 00:  SMI N= 52. 62:  SMAX= 350. 79:  SK= . 010]
13327>       [ InterEventTime= 12. 00]
13328> #
13329> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13330> # of 1. 80
13331> R0100: C00011-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13332>       CONTINUOUS NASHYD        1. 0  01: NN_CK          1917. 00    14. 496  No_date    34: 24    36. 76    . 415     .000
13333>       [ CN= 66. 0:  N= 3. 00:  Tp= 5. 29]
13334>       [ IaREC= 4. 00:  SMI N= 52. 62:  SMAX= 350. 79:  SK= . 010]
13335>       [ InterEventTime= 12. 00]
13336> #
13337> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13338> # of 1. 52
13339> R0100: C00012-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13340>       CONTINUOUS NASHYD        1. 0  01: SW_10          5666. 00    37. 663  No_date    37: 48    42. 49    . 480     .000
13341>       [ CN= 72. 0:  N= 3. 00:  Tp= 8. 00]
13342>       [ IaREC= 4. 00:  SMI N= 39. 75:  SMAX= 264. 99:  SK= . 010]
13343>       [ InterEventTime= 12. 00]
13344> #
13345> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13346> # of 1. 75
13347> R0100: C00013-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13348>       CONTINUOUS NASHYD        1. 0  01: NG_CK          8376. 00    36. 118  No_date    39: 59    36. 76    . 415     .000
13349>       [ CN= 66. 0:  N= 3. 00:  Tp= 11. 66]
13350>       [ IaREC= 4. 00:  SMI N= 52. 62:  SMAX= 350. 79:  SK= . 010]
13351>       [ InterEventTime= 12. 00]
13352> #
13353> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13354> # of 1. 68
13355> R0100: C00014-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13356>       CONTINUOUS NASHYD        1. 0  01: SW_9           1132. 00    16. 501  No_date    30: 52    40. 82    . 461     .000
13357>       [ CN= 70. 0:  N= 3. 00:  Tp= 2. 51]
13358>       [ IaREC= 4. 00:  SMI N= 43. 07:  SMAX= 287. 10:  SK= . 010]
13359>       [ InterEventTime= 12. 00]
13360> #
13361> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13362> # of 1. 82
13363> R0100: C00015-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13364>       CONTINUOUS NASHYD        1. 0  01: NC_CK          4464. 00    18. 060  No_date    39: 59    33. 61    . 380     .000
13365>       [ CN= 62. 0:  N= 3. 00:  Tp= 11. 32]
13366>       [ IaREC= 4. 00:  SMI N= 61. 90:  SMAX= 412. 66:  SK= . 010]
13367>       [ InterEventTime= 12. 00]
13368> #
13369> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13370> # of 1. 80
13371> R0100: C00016-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13372>       CONTINUOUS NASHYD        1. 0  01: SW_8           131. 00     3. 259  No_date    28: 57    34. 39    . 388     .000
13373>       [ CN= 63. 0:  N= 3. 00:  Tp=   . 90]
13374>       [ IaREC= 4. 00:  SMI N= 59. 42:  SMAX= 396. 11:  SK= . 010]
13375>       [ InterEventTime= 12. 00]
13376> #
13377> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13378> # of 1. 65
13379> R0100: C00017-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13380>       CONTINUOUS NASHYD        1. 0  01: HB_DR          3854. 00    21. 238  No_date    38: 28    36. 76    . 415     .000
13381>       [ CN= 66. 0:  N= 3. 00:  Tp= 8. 22]
13382>       [ IaREC= 4. 00:  SMI N= 52. 62:  SMAX= 350. 79:  SK= . 010]
13383>       [ InterEventTime= 12. 00]
13384> #
13385> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13386> # of 1. 82
13387> R0100: C00018-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13388>       CONTINUOUS NASHYD        1. 0  01: SW_7           3197. 00    16. 421  No_date    36: 21    29. 79    . 336     .000
13389>       [ CN= 57. 0:  N= 3. 00:  Tp= 6. 65]
13390>       [ IaREC= 4. 00:  SMI N= 76. 32:  SMAX= 508. 81:  SK= . 010]
13391>       [ InterEventTime= 12. 00]
13392> #
13393> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13394> # of 1. 75
13395> R0100: C00019-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13396>       CONTINUOUS NASHYD        1. 0  01: SW_6           165. 00     1. 511  No_date    33: 01    37. 57    . 424     .000
13397>       [ CN= 67. 0:  N= 3. 00:  Tp= 4. 18]
13398>       [ IaREC= 4. 00:  SMI N= 50. 55:  SMAX= 336. 97:  SK= . 010]
13399>       [ InterEventTime= 12. 00]
13400> #
13401> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13402> # of 1. 67
13403> R0100: C00020-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13404>       CONTINUOUS NASHYD        1. 0  01: VG_DR          1332. 00    10. 882  No_date    35: 10    42. 49    . 480     .000
13405>       [ CN= 72. 0:  N= 3. 00:  Tp= 5. 95]
13406>       [ IaREC= 4. 00:  SMI N= 39. 75:  SMAX= 264. 99:  SK= . 010]
13407>       [ InterEventTime= 12. 00]
13408> R0100: C00021-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13409>       CONTINUOUS NASHYD        1. 0  01: SW_5           224. 00     9. 576  No_date    28: 44    47. 62    . 538     .000
13410>       [ CN= 77. 0:  N= 3. 00:  Tp=   . 75]
13411>       [ IaREC= 4. 00:  SMI N= 31. 15:  SMAX= 207. 66:  SK= . 010]
13412>       [ InterEventTime= 12. 00]
13413> #
13414> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13415> # of 1. 20
13416> R0100: C00022-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13417>       CONTINUOUS NASHYD        1. 0  01: FL_CK          4945. 00    52. 056  No_date    33: 16    44. 17    . 499     .000
13418>       [ CN= 74. 0:  N= 3. 00:  Tp= 4. 45]
13419>       [ IaREC= 4. 00:  SMI N= 36. 67:  SMAX= 244. 49:  SK= . 010]
13420>       [ InterEventTime= 12. 00]
13421> R0100: C00023-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13422>       CONTINUOUS NASHYD        1. 0  01: SW_5A2          20. 00     1. 097  No_date    28: 35    52. 06    . 588     .000
13423>       [ CN= 81. 0:  N= 3. 00:  Tp=   . 62]
13424>       [ IaREC= 4. 00:  SMI N= 25. 21:  SMAX= 168. 09:  SK= . 010]
13425>       [ InterEventTime= 12. 00]
13426> #
13427> # The Tp was modified according to a Peak Reduction factor (MTO Chart B2- 4)
13428> # of 1. 61
13429> R0100: C00024-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13430>       CONTINUOUS NASHYD        1. 0  01: SW_5A1          1412. 00    10. 184  No_date    37: 44    45. 88    . 518     .000
13431>       [ CN= 75. 0:  N= 3. 00:  Tp= 8. 00]
13432>       [ IaREC= 4. 00:  SMI N= 33. 81:  SMAX= 225. 43:  SK= . 010]
13433>       [ InterEventTime= 12. 00]
13434> R0100: C00025-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13435>       CONTINUOUS NASHYD        1. 0  01: SW_4           585. 00    14. 953  No_date    29: 55    52. 06    . 588     .000
13436>       [ CN= 81. 0:  N= 3. 00:  Tp= 1. 75]
13437>       [ IaREC= 4. 00:  SMI N= 25. 21:  SMAX= 168. 09:  SK= . 010]
13438>       [ InterEventTime= 12. 00]
13439> R0100: C00026-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13440>       CONTINUOUS NASHYD        1. 0  01: LM_CK          1021. 00    19. 782  No_date    30: 45    51. 16    . 578     .000
13441>       [ CN= 80. 0:  N= 3. 00:  Tp= 2. 46]
13442>       [ IaREC= 4. 00:  SMI N= 26. 32:  SMAX= 175. 50:  SK= . 010]
13443>       [ InterEventTime= 12. 00]
13444> R0100: C00027-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13445>       CONTINUOUS NASHYD        1. 0  01: SW_2           177. 00     7. 567  No_date    28: 44    47. 62    . 538     .000
13446>       [ CN= 77. 0:  N= 3. 00:  Tp=   . 75]
13447>       [ IaREC= 4. 00:  SMI N= 31. 15:  SMAX= 207. 66:  SK= . 010]
13448>       [ InterEventTime= 12. 00]
13449> R0100: C00028-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13450>       CONTINUOUS NASHYD        1. 0  01: SM_DR          1122. 00    17. 981  No_date    31: 42    52. 06    . 588     .000
13451>       [ CN= 81. 0:  N= 3. 00:  Tp= 3. 25]
13452>       [ IaREC= 4. 00:  SMI N= 25. 21:  SMAX= 168. 09:  SK= . 010]
13453>       [ InterEventTime= 12. 00]
13454> R0100: C00029-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
13455>       CONTINUOUS NASHYD        1. 0  01: MQ_DR          2737. 00    40. 730  No_date    31: 28    46. 75    . 528     .000
13456>       [ CN= 76. 0:  N= 3. 00:  Tp= 3. 03]
13457>       [ IaREC= 4. 00:  SMI N= 32. 46:  SMAX= 216. 39:  SK= . 010]
13458>       [ InterEventTime= 12. 00]
13459> #
13460> # Routing hydrographs
13461> #
13462> # Starting with the addition of Jock River Headwater and Subwatershed 13
13463> #
13464> R0100: C00030-------------DTmin- ID: NHYD---------AREA ha- QPEAK cms- TpeakDate_hh: mm----RVmm R. C.----DWF cms
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13465>      ADD HYD                          1. 0 02: JR_HW          3680. 00   21. 616 No_date    36: 52    35. 18   n/ a      . 000
13466>                           +          1. 0 02: SW_13           971. 00    8. 203 No_date    32: 33    32. 84   n/ a      . 000
13467>                      SUM=            1. 0 01: S_NI3          4651. 00   27. 660 No_date    35: 21    34. 69   n/ a      . 000
13468> #
13469> # Sum of hydrographs from Node 13 routed to Node 13A
13470> # (Approximated cross-section - see cross-section 258)
13471> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
13472> #
13473> R0100: C00031- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13474>      ROUTE CHANNEL    - >          1. 0 02: S_NI3          4651. 00   27. 660 No_date    35: 21    34. 69   n/ a      . 000
13475>        [ RDT=  1. 00]  out <-       1. 0 01: NI3A           4651. 00   22. 598 No_date    38: 56    34. 69   n/ a      . 000
13476>        [ L/ S/ n=  9074. /  . 022/ . 040]
13477>        [ Vmx=   . 598: Dmx=  4. 178]
13478> #
13479> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
13480> #
13481> R0100: C00032- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13482>      ADD HYD                          1. 0 02: NI3A           4651. 00   22. 598 No_date    38: 56    34. 69   n/ a      . 000
13483>                           +          1. 0 02: JR_GWM         3074. 00   10. 428 No_date    39: 59    28. 29   n/ a      . 000
13484>                      SUM=            1. 0 01: SNI3A          7725. 00   32. 845 No_date    39: 44    32. 14   n/ a      . 000
13485> #
13486> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
13487> #
13488> R0100: C00033- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13489>      ROUTE RESERVOIR  - >          1. 0 02: SNI3A          7725. 00   32. 845 No_date    39: 44    32. 14   n/ a      . 000
13490>                           out <=     1. 0 01: RES_GM         7725. 00    3. 950 No_date    62: 26    32. 14   n/ a      . 000
13491>        [ MxSt oKed=  1. 796E+03   m3 ]
13492> #
13493> R0100: C00034- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13494>      SAVE HYD                         1. 0 01: RES_GM         7725. 00    3. 950 No_date    62: 26    32. 14   n/ a      . 000
13495>          fname : H_RESGM
13496>          remark: Out flow from Res GM
13497> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
13498> # (Approximated cross-section - see cross-section 258)
13499> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
13500> R0100: C00035- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13501>      ROUTE CHANNEL    - >          1. 0 02: RES_GM         7725. 00    3. 950 No_date    62: 26    32. 14   n/ a      . 000
13502>        [ RDT=  1. 00]  out <-       1. 0 01: NI2            7725. 00    3. 947 No_date    64: 43    32. 14   n/ a      . 000
13503>        [ L/ S/ n=  5926. /  . 076/ . 040]
13504>        [ Vmx=   . 560: Dmx=  1. 560]
13505> #
13506> # Addition of Subwatershed Jock River at Ashton to Node 12
13507> #
13508> R0100: C00036- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13509>      ADD HYD                          1. 0 02: NI2            7725. 00    3. 947 No_date    64: 43    32. 14   n/ a      . 000
13510>                           +          1. 0 02: JR_ASH         1781. 00   19. 695 No_date    32: 38    42. 49   n/ a      . 000
13511>                      SUM=            1. 0 01: S_NI2          9506. 00   21. 745 No_date    32: 41    34. 08   n/ a      . 000
13512> R0100: C00037- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13513>      SAVE HYD                         1. 0 01: S_NI2          9506. 00   21. 745 No_date    32: 41    34. 08   n/ a      . 000
13514>          fname : H_SNI2
13515>          remark: flow at S_NI2 near Ashton
13516> #
13517> # Sum of hydrographs from Node 12 routed to Node 11
13518> # (Approximated cross-section - see cross-section 258)
13519> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
13520> #
13521> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
13522> #
13523> R0100: C00038- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13524>      ROUTE CHANNEL    - >          1. 0 02: S_NI2          9506. 00   21. 745 No_date    32: 41    34. 08   n/ a      . 000
13525>        [ RDT=  1. 00]  out <-       1. 0 01: Dam1           9506. 00   21. 522 No_date    32: 57    34. 08   n/ a      . 000
13526>        [ L/ S/ n=   972. /  . 054/ . 040]
13527>        [ Vmx=   . 777: Dmx=  3. 194]
13528> #
13529> # Addition of Subwatershed 11 and No Name Creek to Node 11
13530> #
13531> R0100: C00039- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13532>      ADD HYD                          1. 0 02: Dam1           9506. 00   21. 522 No_date    32: 57    34. 08   n/ a      . 000
13533>                           +          1. 0 02: SW_11           500. 00   10. 735 No_date    29: 21    36. 76   n/ a      . 000
13534>                           +          1. 0 02: NN_CK          1917. 00   14. 496 No_date    34: 24    36. 76   n/ a      . 000
13535>                      SUM=            1. 0 01: S_NI1          11923. 00   38. 138 No_date    32: 59    34. 62   n/ a      . 000
13536> #
13537> # Sum of hydrographs from Node 11 routed to Node 10
13538> # Section 1
13539> #
13540> R0100: C00040- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13541>      ROUTE CHANNEL    - >          1. 0 02: S_NI1          11923. 00   38. 138 No_date    32: 59    34. 62   n/ a      . 000
13542>        [ RDT=  1. 00]  out <-       1. 0 01: NI10           11923. 00   23. 609 No_date    39: 19    34. 62   n/ a      . 000
13543>        [ L/ S/ n=14028. /  . 157/ . 040]
13544>        [ Vmx=   . 486: Dmx=  1. 492]
13545> #
13546> # Addition of Subwatershed 10 to Node 10
13547> #
13548> R0100: C00041- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13549>      ADD HYD                          1. 0 02: NI10           11923. 00   23. 609 No_date    39: 19    34. 62   n/ a      . 000
13550>                           +          1. 0 02: SW_10           5666. 00   37. 663 No_date    37: 48    42. 49   n/ a      . 000
13551>                      SUM=            1. 0 01: S_NI10         17589. 00   61. 058 No_date    38: 16    37. 16   n/ a      . 000
13552> R0100: C00042- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13553>      SAVE HYD                         1. 0 01: S_NI10         17589. 00   61. 058 No_date    38: 16    37. 16   n/ a      . 000
13554>          fname : H_SNI0
13555>          remark: flow at S_NI0:  NI0 + SW_10
13556> # Addition of Kings Creek to S_NI0
13557> #
13558> R0100: C00043- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13559>      ADD HYD                          1. 0 02: S_NI0          17589. 00   61. 058 No_date    38: 16    37. 16   n/ a      . 000
13560>                           +          1. 0 02: KG_CK           8376. 00   36. 118 No_date    39: 59    36. 76   n/ a      . 000
13561>                      SUM=            1. 0 01: S_NI0A         25965. 00   96. 054 No_date    39: 40    37. 03   n/ a      . 000
13562> #
13563> # Sum of hydrographs from Node 10 routed to Node 9
13564> # Section 2
13565> #
13566> R0100: C00044- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13567>      ROUTE CHANNEL    - >          1. 0 02: S_NI0A         25965. 00   96. 054 No_date    39: 40    37. 03   n/ a      . 000
13568>        [ RDT=  1. 00]  out <-       1. 0 01: N9             25965. 00   94. 262 No_date    39: 59    37. 03   n/ a      . 000
13569>        [ L/ S/ n=  3982. /  . 075/ . 040]
13570>        [ Vmx=   . 775: Dmx=  2. 151]
13571> #
13572> # Addition of Subwatershed 9 and Nichols Creek to Node 9
13573> #
13574> R0100: C00045- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13575>      ADD HYD                          1. 0 02: N9             25965. 00   94. 262 No_date    39: 59    37. 03   n/ a      . 000
13576>                           +          1. 0 02: SW_9            1132. 00   16. 501 No_date    30: 52    40. 83   n/ a      . 000
13577>                           +          1. 0 02: NC_CK           4464. 00   18. 060 No_date    39: 59    33. 61   n/ a      . 000
13578>                      SUM=            1. 0 01: S_N9           31561. 00   115. 681 No_date    39: 59    36. 68   n/ a      . 000
13579> #
13580> # Sum of hydrographs from Node 9 routed to Node 8
13581> # Section 3
13582> #
13583> R0100: C00046- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13584>      ROUTE CHANNEL    - >          1. 0 02: S_N9           31561. 00   115. 681 No_date    39: 59    36. 68   n/ a      . 000
13585>        [ RDT=  1. 00]  out <-       1. 0 01: N8             31561. 00   109. 395 No_date    39: 59    36. 68   n/ a      . 000
13586>        [ L/ S/ n=  2269. /  . 088/ . 045]
13587>        [ Vmx=   . 374: Dmx=  1. 924]
13588> #
13589> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
13590> #
13591> R0100: C00047- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13592>      ADD HYD                          1. 0 02: N8             31561. 00   109. 395 No_date    39: 59    36. 68   n/ a      . 000
13593>                           +          1. 0 02: SW_8             131. 00    3. 259 No_date    28: 57    34. 39   n/ a      . 000
13594>                           +          1. 0 02: HB_DR           3854. 00   21. 238 No_date    38: 28    36. 76   n/ a      . 000
13595>                      SUM=            1. 0 01: S_N8           35546. 00   130. 593 No_date    39: 59    36. 68   n/ a      . 000
13596> #
13597> # Sum of hydrographs from Node 8 routed to Node 7
13598> # Section 4
13599> #
13600> R0100: C00048- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13601>      ROUTE CHANNEL    - >          1. 0 02: S_N8           35546. 00   130. 593 No_date    39: 59    36. 68   n/ a      . 000
13602>        [ RDT=  1. 00]  out <-       1. 0 01: N7             35546. 00   111. 942 No_date    44: 52    36. 68   n/ a      . 000
13603>        [ L/ S/ n=  3750. /  . 053/ . 070]
13604>        [ Vmx=   . 237: Dmx=  2. 412]
13605> #
13606> # Addition of Subwatershed 7 to Node 7
13607> #
13608> R0100: C00049- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13609>      ADD HYD                          1. 0 02: N7             35546. 00   111. 942 No_date    44: 52    36. 68   n/ a      . 000
13610>                           +          1. 0 02: SW_7            3197. 00   16. 421 No_date    36: 21    29. 79   n/ a      . 000
13611>                      SUM=            1. 0 01: S_N7           38743. 00   120. 740 No_date    43: 36    36. 11   n/ a      . 000
13612> R0100: C00050- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13613>      SAVE HYD                         1. 0 01: S_N7           38743. 00   120. 740 No_date    43: 36    36. 11   n/ a      . 000
13614>          fname : H_SN7
13615>          remark: flow at S_N7:  N7 + SW 7
13616> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
13617> # Storage area and volumes were estimated from available topo maps.
13618> # Release rate from fen was assumed to be controlled by the downstream
13619> # river cross-section for summer conditions.  It is assumed that for up to
13620> # 0. 75 m of water, the main channel of the river provided the storage.  Above
13621> # this depth, the wetland starts to signigicantly store water.
13622> #
13623> R0100: C00051- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13624>      ROUTE RESERVOIR  - >          1. 0 02: S_N7           38743. 00   120. 740 No_date    43: 36    36. 11   n/ a      . 000
13625>                           out <=     1. 0 01: RES_RF         38743. 00   62. 351 No_date    58: 25    36. 11   n/ a      . 000
13626>        [ MxSt oKed=  5. 140E+03   m3 ]
13627> R0100: C00052- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13628>      SAVE HYD                         1. 0 01: RES_RF         38743. 00   62. 351 No_date    58: 25    36. 11   n/ a      . 000
13629>          fname : H_ResRF
13630>          remark: outflow of Richmond Fen
13631> #
13632> # Sum of hydrographs from Node 7 routed to Node 6
13633> # Section 5
13634> #
13635> R0100: C00053- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13636>      ROUTE CHANNEL    - >          1. 0 02: RES_RF         38743. 00   62. 351 No_date    58: 25    36. 11   n/ a      . 000
13637>        [ RDT=  1. 00]  out <-       1. 0 01: N6             38743. 00   62. 067 No_date    59: 46    36. 11   n/ a      . 000
13638>        [ L/ S/ n=  3056. /  . 082/ . 025]
13639>        [ Vmx=   . 556: Dmx=  1. 373]
13640> #
13641> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
13642> #
13643> R0100: C00054- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13644>      ADD HYD                          1. 0 02: N6             38743. 00   62. 067 No_date    59: 46    36. 11   n/ a      . 000
13645>                           +          1. 0 02: SW_6             165. 00    1. 511 No_date    33: 01    37. 57   n/ a      . 000
13646>                           +          1. 0 02: VG_DR           1332. 00   10. 882 No_date    35: 10    42. 49   n/ a      . 000
13647>                      SUM=            1. 0 01: S_N6           40240. 01   62. 114 No_date    59: 39    36. 33   n/ a      . 000
13648> #
13649> # Sum of hydrographs from Node 6 routed to Node 5
13650> # Section 6
13651> #
13652> R0100: C00055- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13653>      ROUTE CHANNEL    - >          1. 0 02: S_N6           40240. 01   62. 114 No_date    59: 39    36. 33   n/ a      . 000
13654>        [ RDT=  1. 00]  out <-       1. 0 01: N5             40240. 01   61. 991 No_date    60: 21    36. 33   n/ a      . 000
13655>        [ L/ S/ n=  1852. /  . 054/ . 035]
13656>        [ Vmx=   . 494: Dmx=  1. 468]
13657> #
13658> # Addition of Subwatershed 5 and Flowing Creek to Node 5
13659> #
13660> R0100: C00056- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13661>      ADD HYD                          1. 0 02: N5             40240. 01   61. 991 No_date    60: 21    36. 33   n/ a      . 000
13662>                           +          1. 0 02: SW_5             224. 00    9. 576 No_date    28: 44    47. 62   n/ a      . 000
13663>                           +          1. 0 02: FL_CK           4945. 00   52. 056 No_date    33: 16    44. 17   n/ a      . 000
13664>                      SUM=            1. 0 01: S_N5           45409. 01   80. 898 No_date    34: 11    37. 24   n/ a      . 000
13665> #
13666> # Sum of hydrographs from Node 5 routed to Node 5A
13667> # Section 7
13668> #
13669> R0100: C00057- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13670>      ROUTE CHANNEL    - >          1. 0 02: S_N5           45409. 01   80. 898 No_date    34: 11    37. 24   n/ a      . 000
13671>        [ RDT=  1. 00]  out <-       1. 0 01: N5A            45409. 01   80. 666 No_date    34: 28    37. 24   n/ a      . 000
13672>        [ L/ S/ n=   556. /  . 090/ . 040]
13673>        [ Vmx=   . 546: Dmx=  1. 353]
13674> #
13675> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
13676> #
13677> R0100: C00058- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13678>      ADD HYD                          1. 0 02: N5A            45409. 01   80. 666 No_date    34: 28    37. 24   n/ a      . 000
13679>                           +          1. 0 02: SW_5A2           20. 00    1. 097 No_date    28: 35    52. 06   n/ a      . 000
13680>                           +          1. 0 02: SW_5A1         1412. 00   10. 184 No_date    37: 44    45. 88   n/ a      . 000
13681>                      SUM=            1. 0 01: S_N5A          46841. 01   89. 756 No_date    34: 38    37. 51   n/ a      . 000
13682> #
13683> # Sum of hydrographs from Node 5A routed to Node 4
13684> # Section 8
13685> #
13686> R0100: C00059- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13687>      ROUTE CHANNEL    - >          1. 0 02: S_N5A          46841. 01   89. 756 No_date    34: 38    37. 51   n/ a      . 000
13688>        [ RDT=  1. 00]  out <-       1. 0 01: N4             46841. 01   85. 943 No_date    36: 10    37. 51   n/ a      . 000
13689>        [ L/ S/ n=  4630. /  . 043/ . 035]
13690>        [ Vmx=   . 904: Dmx=  3. 866]
13691> #
13692> # Addition of Subwatershed 4 and Leamy Creek to Node 4
13693> #
13694> R0100: C00060- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13695>      ADD HYD                          1. 0 02: N4             46841. 01   85. 943 No_date    36: 10    37. 51   n/ a      . 000
13696>                           +          1. 0 02: SW_4             585. 00   14. 953 No_date    29: 55    52. 06   n/ a      . 000
13697>                           +          1. 0 02: LM_CK           1021. 00   19. 782 No_date    30: 45    51. 16   n/ a      . 000
13698>                      SUM=            1. 0 01: S_N4           48447. 00   96. 618 No_date    35: 12    37. 97   n/ a      . 000
13699> R0100: C00061- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13700>      SAVE HYD                         1. 0 01: S_N4           48447. 00   96. 618 No_date    35: 12    37. 97   n/ a      . 000
13701>          fname : S_N4. 0100
13702>          remark: flow at S_N4
13703> #
13704> # Sum of hydrographs from Node 4 routed to Node 2
13705> # Section 9
13706> #
13707> R0100: C00062- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13708>      ROUTE CHANNEL    - >          1. 0 02: S_N4           48447. 00   96. 618 No_date    35: 12    37. 97   n/ a      . 000
13709>        [ RDT=  1. 00]  out <-       1. 0 01: N2             48447. 00   96. 322 No_date    35: 13    37. 97   n/ a      . 000
13710>        [ L/ S/ n=  1667. /  . 060/ . 040]
13711>        [ Vmx=   . 944: Dmx=  3. 929]
13712> #
13713> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
13714> #
13715> R0100: C00063- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13716>      ADD HYD                          1. 0 02: N2             48447. 00   96. 322 No_date    35: 13    37. 97   n/ a      . 000
13717>                           +          1. 0 02: SW_2             177. 00    7. 567 No_date    28: 44    47. 62   n/ a      . 000
13718>                           +          1. 0 02: SM_DR           1122. 00   17. 981 No_date    31: 42    52. 06   n/ a      . 000
13719>                           +          1. 0 02: MO_DR           2737. 00   40. 730 No_date    31: 28    46. 75   n/ a      . 000
13720>                      SUM=            1. 0 01: S_N2           52483. 00   143. 580 No_date    32: 59    38. 76   n/ a      . 000
13721> R0100: C00064- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13722>      SAVE HYD                         1. 0 01: S_N2           52483. 00   143. 580 No_date    32: 59    38. 76   n/ a      . 000
13723>          fname : H_SN2
13724>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
13725> #
13726> # Sum of hydrographs from Node 2 routed to Node 1
13727> # Section 10
13728> #
13729> #*******************************************************************************
13730> #
13731> # Hydrograph from Node 2 routed to Node 416
13732> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
13733> #
13734> R0100: C00065- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13735>      ROUTE CHANNEL    - >          1. 0 02: S_N2           52483. 00   143. 580 No_date    32: 59    38. 76   n/ a      . 000
13736>        [ RDT=  1. 00]  out <-       1. 0 01: N_416          52483. 00   139. 298 No_date    33: 45    38. 76   n/ a      . 000
13737>        [ L/ S/ n=  2327. /  . 050/ . 055]
13738>        [ Vmx=   . 801: Dmx=  3. 814]
13739> #*******************************************************************************
13740> #     Catchment SW1a
13741> #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
13742> #     - Undeveloped agricultural land
13743> #*******************************************************************************
13744> R0100: C00066- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13745>      CONTI NUOUS NASHYD               1. 0 01: SW_1a          536. 42      7. 274 No_date    31: 14    40. 95   . 462    . 000
13746>        [ CN=  72. 0:  N=  3. 00:  Tp=   1. 79]
13747>        [ IaREC=  4. 00:  SMN=  39. 75:  SMX=264. 99:  SK=   . 010]
13748>        [ InterEventTime=  12. 00]
13749> R0100: C00067- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13750>      CONTI NUOUS STANDHYD             1. 0 01: S-1- Okeefe     44. 93      7. 977 No_date    28: 02    70. 58   . 797    . 000
13751>        [ XI MP=. 65: TI MP=. 65]
13752>        [ LOSS= 2 : CN=  75. 0]
13753>        [ Pervious      area:  IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
13754>        [ Impervious    area:  IAimp=  1. 57: SLPI=  . 75: LGI=  547. : MNI=. 013: SCI=    . 0]
13755>        [ IaREC=  4. 00:  IaRECper=    4. 00]
13756>        [ SMN=  33. 81:  SMX=225. 43:  SK=   . 010]
13757> R0100: C00068- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13758>      ADD HYD                          1. 0 02: N_416          52483. 00   139. 298 No_date    33: 45    38. 76   n/ a      . 000
13759>                           +          1. 0 02: SW_1a            536. 42      7. 274 No_date    31: 14    40. 95   n/ a      . 000
13760>                           +          1. 0 02: S-1- Okeefe      44. 93      7. 977 No_date    28: 02    70. 58   n/ a      . 000
13761>                      SUM=            1. 0 01: SN_416         53064. 36   144. 978 No_date    33: 31    38. 81   n/ a      . 000
13762> R0100: C00069- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13763>      SAVE HYD                         1. 0 01: SN_416         53064. 36   144. 978 No_date    33: 31    38. 81   n/ a      . 000
13764>          fname : SN_416. 0100
13765>          remark: Total Flows at Highway 416
13766> #
13767> # Hydrograph from Node 416 routed to Node at Okeefe drain
13768> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
13769> #
13770> R0100: C00070- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13771>      ROUTE CHANNEL    - >          1. 0 02: SN_416         53064. 36   144. 978 No_date    33: 31    38. 81   n/ a      . 000
13772>        [ RDT=  1. 00]  out <-       1. 0 01: N_OK           53064. 36   144. 828 No_date    33: 30    38. 81   n/ a      . 000
13773>        [ L/ S/ n=   497. /  . 302/ . 055]
13774>        [ Vmx=  1. 728: Dmx=  3. 267]
13775> #*******************************************************************************
13776> #     Catchment OKEEFE
13777> #     - To O'Keefe drain (north of the Jock)
13778> #     - Developed with assumed 43% imp.
13779> #     - 2020-12-01 add Okeefe model (Area 513. 02 HA) instead of current Okeefe (Area 513. 02 HA)
13780> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
13781> #*******************************************************************************
13782> R0100: C00071- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13783>      CONTI NUOUS NASHYD               1. 0 01: O-1              63. 72      1. 380 No_date    28: 58    30. 74   . 347    . 000
13784>        [ CN=  61. 0:  N=  3. 00:  Tp=   . 90]
13785>        [ IaREC=  4. 00:  SMN=  64. 50:  SMX=430. 01:  SK=   . 010]
13786>        [ InterEventTime=  12. 00]
13787> R0100: C00072- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13788>      ROUTE CHANNEL    - >          1. 0 02: O-1              63. 72      1. 380 No_date    28: 58    30. 74   n/ a      . 000
13789>        [ RDT=  1. 00]  out <-       1. 0 01: O-1R             63. 72      1. 307 No_date    29: 13    30. 74   n/ a      . 000
13790>        [ L/ S/ n=   960. /  . 630/ . 043]
13791>        [ Vmx=   . 926: Dmx=   . 493]
13792> R0100: C00073- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13793>      CONTI NUOUS NASHYD               1. 0 01: O-2              28. 61       . 485 No_date    29: 13    28. 38   . 320    . 000
13794>        [ CN=  57. 0:  N=  3. 00:  Tp=  1. 10]
13795>        [ IaREC=  4. 00:  SMN=  76. 32:  SMX=508. 81:  SK=   . 010]
13796>        [ InterEventTime=  12. 00]
13797> R0100: C00074- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13798>      CONTI NUOUS NASHYD               1. 0 01: O-4              46. 94       . 650 No_date    28: 59    21. 79   . 246    . 000
13799>        [ CN=  49. 0:  N=  3. 00:  Tp=   . 90]
13800>        [ IaREC=  4. 00:  SMN=  104. 59:  SMX=697. 25:  SK=   . 010]
13801>        [ InterEventTime=  12. 00]
13802> R0100: C00075- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13803>      ADD HYD                          1. 0 02: O-1R             63. 72      1. 307 No_date    29: 13    30. 74   n/ a      . 000
13804>                           +          1. 0 02: O-2              28. 61       . 485 No_date    29: 13    28. 38   n/ a      . 000
13805>                           +          1. 0 02: O-4              46. 94       . 650 No_date    28: 59    21. 79   n/ a      . 000
13806>                      SUM=            1. 0 01: OKF-N           139. 27      2. 427 No_date    29: 10    27. 24   n/ a      . 000
13807> R0100: C00076- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13808>      ROUTE CHANNEL    - >          1. 0 02: OKF-N          139. 27      2. 427 No_date    29: 10    27. 24   n/ a      . 000
13809>        [ RDT=  1. 00]  out <-       1. 0 01: OKF-NR         139. 27      2. 423 No_date    29: 12    27. 24   n/ a      . 000
13810>        [ L/ S/ n=   210. /  . 810/ . 043]
13811>        [ Vmx=  1. 130: Dmx=   . 796]
13812> R0100: C00077- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13813>      CONTI NUOUS NASHYD               1. 0 01: O-6              16. 46       . 220 No_date    28: 45    18. 67   . 211    . 000
13814>        [ CN=  43. 0:  N=  3. 00:  Tp=   . 70]
13815>        [ IaREC=  4. 00:  SMN=  134. 47:  SMX=896. 47:  SK=   . 010]
13816>        [ InterEventTime=  12. 00]
13817> R0100: C00078- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13818>      CONTI NUOUS STANDHYD             1. 0 01: O-3              39. 67      1. 454 No_date    28: 21    32. 90   . 371    . 000
13819>        [ XI MP=. 15: TI MP=. 30]
13820>        [ LOSS= 2 : CN=  50. 0]
13821>        [ Pervious      area:  IAper=  4. 67: SLPP=  . 32: LGP=  440. : MNP=. 035: SCP=    . 0]
13822>        [ Impervious    area:  IAimp=  1. 57: SLPI=  . 32: LGI=1880. : MNI=. 013: SCI=    . 0]
13823>        [ IaREC=  4. 00:  IaRECper=    4. 00]
13824>        [ SMN=  99. 77:  SMX=665. 12:  SK=   . 010]
13825> R0100: C00079- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13826>      CONTI NUOUS STANDHYD             1. 0 01: O-5              60. 63      3. 669 No_date    28: 10    38. 00   . 429    . 000
13827>        [ XI MP=. 13: TI MP=. 26]
13828>        [ LOSS= 2 : CN=  61. 0]
13829>        [ Pervious      area:  IAper=  4. 67: SLPP=1. 38: LGP=  550. : MNP=. 035: SCP=    . 0]
13830>        [ Impervious    area:  IAimp=  1. 57: SLPI=1. 38: LGI=1450. : MNI=. 013: SCI=    . 0]
13831>        [ IaREC=  4. 00:  IaRECper=    4. 00]
13832>        [ SMN=  64. 50:  SMX=430. 01:  SK=   . 010]
13833> R0100: C00080- ---------- DTmin- ID: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- --- RVmm R. C. --- DWFcms
13834>      ADD HYD                          1. 0 02: OKF-NR         139. 27      2. 423 No_date    29: 12    27. 24   n/ a      . 000
13835>                           +          1. 0 02: O-3              39. 67      1. 454 No_date    28: 21    32. 90   n/ a      . 000
13836>                           +          1. 0 02: O-5              60. 63      3. 669 No_date    28: 10    38. 00   n/ a      . 000
13837>                           +          1. 0 02: O-6              16. 46       . 220 No_date    28: 45    18. 67   n/ a      . 000
13838>                      SUM=            1. 0 01: PT1             256. 03      5. 938 No_date    28: 19    30. 11   n/ a      . 000
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13839> R0100: C00081-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13840>     CONTINUOUS NASHYD          1. 0 01: O 7          5. 28       .117 No_date   28: 37   25. 16   .284      .000
13841>       [ CN= 54. 0:  N= 3. 00:  Tp=   .60]
13842>       [ IaREC= 4. 00:  SM N= 87. 01:  SMX= 580. 07:  SK=  .010]
13843>       [ InterEvent Time=  12. 00]
13844> R0100: C00082-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13845>     ADD HYD                    1. 0 02: PT1          256. 03     5. 938 No_date   28: 19   30. 11    n/a      .000
13846>                          +    1. 0 02: O 7            5. 28       .117 No_date   28: 37   25. 16    n/a      .000
13847>                          SUM=  1. 0 01: FF           261. 31     6. 036 No_date   28: 19   30. 01    n/a      .000
13848> R0100: C00083-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13849>     ROUTE CHANNEL      ->     1. 0 02: FF           261. 31     6. 036 No_date   28: 19   30. 01    n/a      .000
13850>       [ RDT= 1. 00]  out <-    1. 0 01: DRAI N1      261. 31     5. 843 No_date   28: 23   30. 01    n/a      .000
13851>       [ L/ S/ n=  302. / 1. 000/ . 043]
13852>       [ Vmx=  . 853:  Dmx=  . 797]
13853> R0100: C00084-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13854>     CONTINUOUS NASHYD          1. 0 01: DI           1. 17       .110 No_date   28: 12   50. 22    .567      .000
13855>       [ CN= 84. 0:  N= 3. 00:  Tp=   .28]
13856>       [ IaREC= 4. 00:  SM N= 71. 09:  SMX= 140. 62:  SK=  .010]
13857>       [ InterEvent Time=  12. 00]
13858> R0100: C00085-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13859>     CONTINUOUS STANDHYD        1. 0 01: AI           2. 50       .572 No_date   28: 01   70. 42    .795      .000
13860>       [ XI M= . 68:  TI MP= . 85]
13861>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
13862>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
13863>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  224. :  MNI=. 013:  SCI=    . 0]
13864>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
13865> R0100: C00086-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13866>     ROUTE RESERVOIR    ->     1. 0 02: AI           2. 50       .572 No_date   28: 01   70. 42    n/a      .000
13867>                        out <=   1. 0 01: AI - STR    2. 50       .173 No_date   28: 17   70. 42    n/a      .000
13868>                        overflow <=  1. 0 03: AI - OVF    . 00      .000 No_date   0: 00    . 00     n/a      .000
13869>       [ MaxSt ol ked=. 7765E- 01   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
13870> R0100: C00087-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13871>     CONTINUOUS STANDHYD        1. 0 01: ST- 2        . 59        .115 No_date   28: 00   55. 78    .630      .000
13872>       [ XI M= . 46:  TI MP= . 57]
13873>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
13874>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
13875>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  109. :  MNI=. 013:  SCI=    . 0]
13876>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
13877> R0100: C00088-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13878>     ROUTE RESERVOIR    ->     1. 0 02: ST- 2        . 59        .115 No_date   28: 00   55. 78    n/a      .000
13879>                        out <=   1. 0 01: ST2STR      . 59        .053 No_date   28: 13   55. 78    n/a      .000
13880>                        overflow <=  1. 0 03: ST2OVF      . 00      .000 No_date   0: 00    . 00     n/a      .000
13881>       [ MaxSt ol ked=. 5215E- 02   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
13882> R0100: C00089-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13883>     CONTINUOUS NASHYD          1. 0 01: O 8          60. 55      1. 639 No_date   29: 04   38. 99    .440      .000
13884>       [ CN= 69. 0:  N= 3. 00:  Tp=   1. 00]
13885>       [ IaREC= 4. 00:  SM N= 44. 82:  SMX= 298. 82:  SK=  .010]
13886>       [ InterEvent Time=  12. 00]
13887> R0100: C00090-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13888>     ROUTE PI PE        ->     1. 0 02: O 8          60. 55      1. 639 No_date   29: 04   38. 99    n/a      .000
13889>       [ RDT= 1. 00]  out <-    1. 0 01: OBPI PE      60. 55      1. 631 No_date   29: 07   38. 99    n/a      .000
13890>       [ L/ S/ n=  335. / . 100/ . 013]
13891>       [ Vmx=  1. 305:  Dmx=  . 697]
13892>       [ HDT= 1. 20:  WDTH= 1. 80]
13893> R0100: C00091-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13894>     ADD HYD                    1. 0 02: DRAI N1      261. 31     5. 843 No_date   28: 23   30. 01    n/a      .000
13895>                          +    1. 0 02: DI             1. 17       .110 No_date   28: 12   50. 22    n/a      .000
13896>                          +    1. 0 02: AI - STR       2. 50       .173 No_date   28: 17   70. 42    n/a      .000
13897>                          +    1. 0 02: AI - OVF         . 00      .000 No_date   0: 00    . 00     n/a      .000
13898>                          +    1. 0 02: ST2STR         . 59        .053 No_date   28: 13   55. 78    n/a      .000
13899>                          +    1. 0 02: ST2OVF         . 00      .000 No_date   0: 00    . 00     n/a      .000
13900>                          +    1. 0 02: OBPI PE        60. 55      1. 631 No_date   29: 07   38. 99    n/a      .000
13901>                          SUM=  1. 0 01: ST2- 1 N     326. 12     7. 203 No_date   28: 33   32. 11    n/a      .000
13902> R0100: C00092-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13903>     CONTINUOUS STANDHYD        1. 0 01: AI 7         3. 51       .784 No_date   28: 01   70. 42    .795      .000
13904>       [ XI M= . 68:  TI MP= . 85]
13905>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
13906>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
13907>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  265. :  MNI=. 013:  SCI=    . 0]
13908>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
13909> R0100: C00093-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13910>     ROUTE RESERVOIR    ->     1. 0 02: AI 7         3. 51       .784 No_date   28: 01   70. 42    n/a      .000
13911>                        out <=   1. 0 01: AI - STR    3. 51       .240 No_date   28: 18   70. 42    n/a      .000
13912>                        overflow <=  1. 0 03: AI - OVF    . 00      .000 No_date   0: 00    . 00     n/a      .000
13913>       [ MaxSt ol ked=. 1088E+00   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
13914> R0100: C00094-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13915>     CONTINUOUS STANDHYD        1. 0 01: ST- 3        . 71        .138 No_date   28: 00   55. 78    .630      .000
13916>       [ XI M= . 46:  TI MP= . 57]
13917>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
13918>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
13919>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  119. :  MNI=. 013:  SCI=    . 0]
13920>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
13921> R0100: C00095-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13922>     ROUTE RESERVOIR    ->     1. 0 02: ST- 3        . 71        .138 No_date   28: 00   55. 78    n/a      .000
13923>                        out <=   1. 0 01: ST3STR      . 71        .064 No_date   28: 13   55. 78    n/a      .000
13924>                        overflow <=  1. 0 03: ST3OVF      . 00      .000 No_date   0: 00    . 00     n/a      .000
13925>       [ MaxSt ol ked=. 6043E- 02   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
13926> R0100: C00096-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13927>     ADD HYD                    1. 0 02: ST2- 1 N     326. 12     7. 203 No_date   28: 33   32. 11    n/a      .000
13928>                          +    1. 0 02: AI - STR       3. 51       .240 No_date   28: 18   70. 42    n/a      .000
13929>                          +    1. 0 02: AI - OVF         . 00      .000 No_date   0: 00    . 00     n/a      .000
13930>                          +    1. 0 02: ST3STR         . 71        .064 No_date   28: 13   55. 78    n/a      .000
13931>                          +    1. 0 02: ST3OVF         . 00      .000 No_date   0: 00    . 00     n/a      .000
13932>                          SUM=  1. 0 01: PT2ST3       330. 34     7. 487 No_date   28: 31   32. 57    n/a      .000
13933> R0100: C00097-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13934>     ROUTE CHANNEL      ->     1. 0 02: PT2ST3       330. 34     7. 487 No_date   28: 31   32. 57    n/a      .000
13935>       [ RDT= 1. 00]  out <-    1. 0 01: DRAI N2      330. 34     6. 868 No_date   28: 55   32. 57    n/a      .000
13936>       [ L/ S/ n=  592. / . 230/ . 043]
13937>       [ Vmx=  . 611:  Dmx=  1. 215]
13938> R0100: C00098-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13939>     CONTINUOUS NASHYD          1. 0 01: DI           2. 28       .087 No_date   29: 02   50. 22    .567      .000
13940>       [ CN= 84. 0:  N= 3. 00:  Tp=   .99]
13941>       [ IaREC= 4. 00:  SM N= 21. 09:  SMX= 140. 62:  SK=  .010]
13942>       [ InterEvent Time=  12. 00]
13943> R0100: C00099-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13944>     CONTINUOUS STANDHYD        1. 0 01: AI 7         12. 04      2. 382 No_date   28: 03   70. 42    .795      .000
13945>       [ XI M= . 68:  TI MP= . 85]
13946>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
13947>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
13948>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  491. :  MNI=. 013:  SCI=    . 0]
13949>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
13950> R0100: C00100-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13951>     ROUTE RESERVOIR    ->     1. 0 02: AI 7         12. 04      2. 382 No_date   28: 03   70. 42    n/a      .000
13952>                        out <=   1. 0 01: AI 7STR     12. 04      . 801 No_date   28: 24   70. 42    n/a      .000
13953>                        overflow <=  1. 0 03: AI 7OVF     . 00      .000 No_date   0: 00    . 00     n/a      .000
13954>       [ MaxSt ol ked=. 3671E+00   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
13955> R0100: C00101-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13956>     CONTINUOUS STANDHYD        1. 0 01: ST- 4        . 35        .069 No_date   28: 00   55. 78    .630      .000
13957>       [ XI M= . 46:  TI MP= . 57]
13958>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
13959>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
13960>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  84. :  MNI=. 013:  SCI=    . 0]
13961>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
13962> R0100: C00102-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13963>     ROUTE RESERVOIR    ->     1. 0 02: ST- 4        . 35        .069 No_date   28: 00   55. 78    n/a      .000
13964>                        out <=   1. 0 01: ST4STR      . 35        .032 No_date   28: 13   55. 78    n/a      .000
13965>                        overflow <=  1. 0 03: ST4OVF      . 00      .000 No_date   0: 00    . 00     n/a      .000
13966>       [ MaxSt ol ked=. 3372E- 02   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
13967> R0100: C00103-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13968>     CONTINUOUS STANDHYD        1. 0 01: AI 8         5. 30       1. 139 No_date   28: 01   70. 42    .795      .000
13969>       [ XI M= . 68:  TI MP= . 85]
13970>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
13971>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
13972>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  326. :  MNI=. 013:  SCI=    . 0]
13973>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
13974> R0100: C00104-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13975>     ROUTE RESERVOIR    ->     1. 0 02: AI 8         5. 30       1. 139 No_date   28: 01   70. 42    n/a      .000
13976>                        out <=   1. 0 01: AI 8STR     5. 30       . 360 No_date   28: 20   70. 42    n/a      .000
13977>                        overflow <=  1. 0 03: AI 8OVF     . 00      .000 No_date   0: 00    . 00     n/a      .000
13978>       [ MaxSt ol ked=. 1636E+00   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
13979> R0100: C00105-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13980>     ADD HYD                    1. 0 02: DRAI N2      330. 34     6. 868 No_date   28: 55   32. 57    n/a      .000
13981>                          +    1. 0 02: DI             2. 28       .087 No_date   29: 02   50. 22    n/a      .000
13982>                          +    1. 0 02: AI 7STR       12. 04      . 801 No_date   28: 24   70. 42    n/a      .000
13983>                          +    1. 0 02: AI 7OVF          . 00      .000 No_date   0: 00    . 00     n/a      .000
13984>                          +    1. 0 02: ST4STR         . 35        .032 No_date   28: 13   55. 78    n/a      .000
13985>                          +    1. 0 02: ST4OVF         . 00      .000 No_date   0: 00    . 00     n/a      .000
13986>                          +    1. 0 02: AI 8STR        5. 30       . 360 No_date   28: 20   70. 42    n/a      .000
13987>                          +    1. 0 02: AI 8OVF          . 00      .000 No_date   0: 00    . 00     n/a      .000
13988>                          SUM=  1. 0 01: PT3ST4       350. 31     7. 785 No_date   28: 52   34. 58    n/a      .000
13989> R0100: C00106-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13990>     ROUTE CHANNEL      ->     1. 0 02: PT3ST4       350. 31     7. 785 No_date   28: 52   34. 58    n/a      .000
13991>       [ RDT= 1. 00]  out <-    1. 0 01: DRAI N3      350. 31     7. 474 No_date   29: 08   34. 58    n/a      .000
13992>       [ L/ S/ n=  535. / . 230/ . 043]
13993>       [ Vmx=  . 628:  Dmx=  1. 257]
13994> R0100: C00107-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
13995>     CONTINUOUS NASHYD          1. 0 01: DI           2. 51       .132 No_date   28: 43   54. 04    .610      .000
13996>       [ CN= 86. 0:  N= 3. 00:  Tp=   .73]
13997>       [ IaREC= 4. 00:  SM N= 17. 43:  SMX= 116. 21:  SK=  .010]
13998>       [ InterEvent Time=  12. 00]
13999> R0100: C00108-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14000>     CONTINUOUS STANDHYD        1. 0 01: CI           3. 41       .763 No_date   28: 01   70. 42    .795      .000
14001>       [ XI M= . 68:  TI MP= . 85]
14002>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
14003>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
14004>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  261. :  MNI=. 013:  SCI=    . 0]
14005>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
14006> R0100: C00109-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14007>     ROUTE RESERVOIR    ->     1. 0 02: CI           3. 41       .763 No_date   28: 01   70. 42    n/a      .000
14008>                        out <=   1. 0 01: CI - STR    3. 41       .232 No_date   28: 18   70. 42    n/a      .000
14009>                        overflow <=  1. 0 03: CI - OVF    . 00      .000 No_date   0: 00    . 00     n/a      .000
14010>       [ MaxSt ol ked=. 1056E+00   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14011> R0100: C00110-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14012>     CONTINUOUS STANDHYD        1. 0 01: ST- 5        . 45        .088 No_date   28: 00   55. 78    .630      .000
14013>       [ XI M= . 46:  TI MP= . 57]
14014>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
14015>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
14016>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  95. :  MNI=. 013:  SCI=    . 0]
14017>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
14018> R0100: C00111-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14019>     ROUTE RESERVOIR    ->     1. 0 02: ST- 5        . 45        .088 No_date   28: 00   55. 78    n/a      .000
14020>                        out <=   1. 0 01: ST5STR      . 45        .041 No_date   28: 13   55. 78    n/a      .000
14021>                        overflow <=  1. 0 03: ST5OVF      . 00      .000 No_date   0: 00    . 00     n/a      .000
14022>       [ MaxSt ol ked=. 4111E- 02   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14023> R0100: C00112-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14024>     ADD HYD                    1. 0 02: DRAI N3      350. 31     7. 474 No_date   29: 08   34. 58    n/a      .000
14025>                          +    1. 0 02: DI             2. 51       .132 No_date   28: 43   54. 04    n/a      .000
14026>                          +    1. 0 02: CI - STR       3. 41       .232 No_date   28: 18   70. 42    n/a      .000
14027>                          +    1. 0 02: CI - OVF         . 00      .000 No_date   0: 00    . 00     n/a      .000
14028>                          +    1. 0 02: ST5STR         . 45        .041 No_date   28: 13   55. 78    n/a      .000
14029>                          +    1. 0 02: ST5OVF         . 00      .000 No_date   0: 00    . 00     n/a      .000
14030>                          SUM=  1. 0 01: ST5- E       356. 68     7. 731 No_date   29: 07   35. 08    n/a      .000
14031> R0100: C00113-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14032>     CONTINUOUS STANDHYD        1. 0 01: STRAND       7. 59       1. 163 No_date   28: 08   68. 85    .777      .000
14033>       [ XI M= . 64:  TI MP= . 85]
14034>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
14035>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  40. :  MNP=. 250:  SCP=    . 0]
14036>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=1230. :  MNI=. 013:  SCI=    . 0]
14037>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
14038> R0100: C00114-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14039>     ROUTE RESERVOIR    ->     1. 0 02: STRAND       7. 59       1. 163 No_date   28: 08   68. 85    n/a      .000
14040>                        out <=   1. 0 01: S- POND     7. 59       . 200 No_date   29: 01   68. 85    n/a      .000
14041>                        overflow <=  1. 0 03: S- OVF      . 00      .000 No_date   0: 00    . 00     n/a      .000
14042>       [ MaxSt ol ked=. 3382E+00   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14043> R0100: C00115-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14044>     ADD HYD                    1. 0 02: ST5- E       356. 68     7. 731 No_date   29: 07   35. 08    n/a      .000
14045>                          +    1. 0 02: S- POND        7. 59       . 200 No_date   29: 01   68. 85    n/a      .000
14046>                          +    1. 0 02: S- OVF           . 00      .000 No_date   0: 00    . 00     n/a      .000
14047>                          SUM=  1. 0 01: SSAOUT       364. 27     7. 924 No_date   29: 06   35. 79    n/a      .000
14048> R0100: C00116-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14049>     SAVE HYD                   1. 0 01: SSAOUT       364. 27     7. 924 No_date   29: 06   35. 79    n/a      .000
14050>       fname : SSAOUT. 0100
14051>       remark: SSAOUT
14052> R0100: C00117-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14053>     CONTINUOUS STANDHYD        1. 0 01: Area- A      66. 75      9. 945 No_date   28: 08   67. 64    .764      .000
14054>       [ XI M= . 64:  TI MP= . 80]
14055>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
14056>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
14057>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=1155. :  MNI=. 013:  SCI=    . 0]
14058>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
14059> R0100: C00118-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14060>     SAVE HYD                   1. 0 01: Area- A      66. 75      9. 945 No_date   28: 08   67. 64    n/a      .000
14061>       fname : Area- A. 0100
14062>       remark: SMWF- A Inflow
14063> R0100: C00119-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14064>     ROUTE RESERVOIR    ->     1. 0 02: SSAOUT       364. 27     7. 924 No_date   29: 06   35. 79    n/a      .000
14065>                        out <=   1. 0 01: SWMF- A     66. 75      1. 357 No_date   29: 10   67. 64    n/a      .000
14066>                        overflow <=  1. 0 03: SWMOV       . 00      .000 No_date   0: 00    . 00     n/a      .000
14067>       [ MaxSt ol ked=. 3051E+01   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14068> R0100: C00120-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14069>     SAVE HYD                   1. 0 01: SWMF- A      66. 75      1. 357 No_date   29: 10   67. 64    n/a      .000
14070>       fname : SWMF- A. 0100
14071>       remark: SMWF- A Outflow
14072> R0100: C00121-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14073>     ADD HYD                    1. 0 02: SSAOUT       364. 27     7. 924 No_date   29: 06   35. 79    n/a      .000
14074>                          +    1. 0 02: SWMF- A      66. 75      1. 357 No_date   29: 10   67. 64    n/a      .000
14075>                          +    1. 0 02: SWMOV            . 00      .000 No_date   0: 00    . 00     n/a      .000
14076>                          SUM=  1. 0 01: PT4STS       431. 02     9. 279 No_date   29: 07   40. 72    n/a      .000
14077> R0100: C00122-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14078>     CONTINUOUS STANDHYD        1. 0 01: C6           1. 87       .433 No_date   28: 01   70. 42    .795      .000
14079>       [ XI M= . 68:  TI MP= . 85]
14080>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
14081>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
14082>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  193. :  MNI=. 013:  SCI=    . 0]
14083>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
14084> R0100: C00123-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14085>     ROUTE RESERVOIR    ->     1. 0 02: C6           1. 87       .433 No_date   28: 01   70. 42    n/a      .000
14086>                        out <=   1. 0 01: C6- STR     1. 87       .129 No_date   28: 16   70. 42    n/a      .000
14087>                        overflow <=  1. 0 03: C6- OVF     . 00      .000 No_date   0: 00    . 00     n/a      .000
14088>       [ MaxSt ol ked=. 5845E- 01   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14089> R0100: C00124-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14090>     CONTINUOUS STANDHYD        1. 0 01: C7           1. 62       .381 No_date   28: 00   70. 42    .795      .000
14091>       [ XI M= . 68:  TI MP= . 85]
14092>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
14093>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
14094>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  180. :  MNI=. 013:  SCI=    . 0]
14095>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
14096> R0100: C00125-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14097>     ROUTE RESERVOIR    ->     1. 0 02: C7           1. 62       .381 No_date   28: 00   70. 42    n/a      .000
14098>                        out <=   1. 0 01: C7- STR     1. 62       .112 No_date   28: 16   70. 42    n/a      .000
14099>                        overflow <=  1. 0 03: C7- OVF     . 00      .000 No_date   0: 00    . 00     n/a      .000
14100>       [ MaxSt ol ked=. 5036E- 01   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14101> R0100: C00126-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14102>     CONTINUOUS STANDHYD        1. 0 01: ST- 6        . 41        .081 No_date   28: 00   55. 78    .630      .000
14103>       [ XI M= . 46:  TI MP= . 57]
14104>       [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:   F=  .00]
14105>       [ Pervious      area:  I A per= 4. 67:  SLPP=  . 50:  LGP=  50. :  MNP=. 250:  SCP=    . 0]
14106>       [ Impervious    area:  I A imp= 1. 57:  SLPI=  . 50:  LGI=  91. :  MNI=. 013:  SCI=    . 0]
14107>       [ IaREC i mp=   4. 00:  IaREC per=   4. 00]
14108> R0100: C00127-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14109>     ROUTE RESERVOIR    ->     1. 0 02: ST- 6        . 41        .081 No_date   28: 00   55. 78    n/a      .000
14110>                        out <=   1. 0 01: ST6STR      . 41        .037 No_date   28: 13   55. 78    n/a      .000
14111>                        overflow <=  1. 0 03: ST6OVF      . 00      .000 No_date   0: 00    . 00     n/a      .000
14112>       [ MaxSt ol ked=. 3877E- 02   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14113> R0100: C00128-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14114>     ADD HYD                    1. 0 02: PT4STS       431. 02     9. 279 No_date   29: 07   40. 72    n/a      .000
14115>                          +    1. 0 02: C6- STR        1. 87       .129 No_date   28: 16   70. 42    n/a      .000
14116>                          +    1. 0 02: C6- OVF          . 00      .000 No_date   0: 00    . 00     n/a      .000
14117>                          +    1. 0 02: C7- STR        1. 62       .112 No_date   28: 16   70. 42    n/a      .000
14118>                          +    1. 0 02: C7- OVF          . 00      .000 No_date   0: 00    . 00     n/a      .000
14119>                          +    1. 0 02: ST6STR         . 41        .037 No_date   28: 13   55. 78    n/a      .000
14120>                          +    1. 0 02: ST6OVF           . 00      .000 No_date   0: 00    . 00     n/a      .000
14121>                          SUM=  1. 0 01: PT5STS       434. 92     9. 426 No_date   29: 06   40. 97    n/a      .000
14122> R0100: C00129-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14123>     ROUTE CHANNEL      ->     1. 0 02: PT5STS       434. 92     9. 426 No_date   29: 06   40. 97    n/a      .000
14124>       [ RDT= 1. 00]  out <-    1. 0 01: DRAI N4      434. 92     9. 061 No_date   29: 16   40. 97    n/a      .000
14125>       [ L/ S/ n=  324. / . 100/ . 043]
14126>       [ Vmx=  . 507:  Dmx=  1. 619]
14127> R0100: C00130-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14128>     CONTINUOUS NASHYD          1. 0 01: D4           1. 73       . 112 No_date   28: 33   57. 07    . 644     .000
14129>       [ CN= 88. 0:  N= 3. 00:  Tp=   .60]
14130>       [ IaREC= 4. 00:  SM N= 14. 94:  SMX= 99. 61:  SK=  .010]
14131>       [ InterEvent Time=  12. 00]
14132> R0100: C00131-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
14133>     CONTINUOUS STANDHYD        1. 0 01: Area- B      24. 04      4. 871 No_date   28: 02   66. 17    .747      .000
14134>       [ XI M= . 62:  TI MP= . 77]
14135>       [ Horton parameters:  Fo
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14213>     CONTINUOUS STANDHYD    1.0 01: S-1-D3          6.79     1.405 No_date    28:00   70.58 .797      .000
14214>       [ XI M%=. 65: TI M%=. 65]
14215>       [ LOSS= 2 : CN= 75.0]
14216>       [ Pervious       area: I Aper= 4. 67: SLPP=2.00: LGP=   40. : MNP=. 250: SCP=    .0]
14217>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 75: LGI = 213. : MNI =. 013: SCI =    .0]
14218>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14219>       [ SMN= 33. 81: SMX%=225. 43: SK= . 010]
14220> R0100: C00146-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14221>     ADD HYD                1. 0 02: N_OK          53064. 36   144. 828 No_date    33:30    38. 81  n/ a      .000
14222>                          +    1. 0 02: OKEEFE       488. 00     8. 925 No_date    29:52    42. 80  n/ a      .000
14223>                          +    1. 0 02: S-1-D2        18. 67     3. 580 No_date    28:01    70. 58  n/ a      .000
14224>                          +    1. 0 02: S-1-D3         6. 79     1. 405 No_date    28:00    70. 58  n/ a      .000
14225>                        SUM=   1. 0 01: SN_OK       53577. 82   147. 873 No_date    33:30    38. 86  n/ a      .000
14226> R0100: C00147-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14227>     SAVE HYD               1. 0 01: SN_OK         53577. 82   147. 873 No_date    33:30    38. 86  n/ a      .000
14228>       fname : SN_OK 0100
14229>       remark: Total Flows at Okeefe Drain
14230> #
14231> # Hydrograph from Node Okeefe routed to Node at Foster Drain
14232> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
14233> #
14234> R0100: C00148-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14235>     ROUTE CHANNEL    ->    1. 0 02: SN_OK         53577. 82   147. 873 No_date    33:30    38. 86  n/ a      .000
14236>       [ RDT= 1. 00] out <-    1. 0 01: N_FO       53577. 82   147. 535 No_date    33:30    38. 86  n/ a      .000
14237>       [ L/ S/ n=  1183. /  . 076/ . 035]
14238>       [ Vmx=  1. 294: Dmx=  3. 586]
14239> #*********************************************************************
14240> #     Catchment FOSTER
14241> #     - To Foster ditch (north of the Jock)
14242> #     - Partially developed (medium density); remaining agricultural
14243> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
14244> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
14245> #     - 2021-02-12 as updated Foster area to 325.44 ha as measured from QGIS
14246> #*********************************************************************
14247> R0100: C00149-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14248>     CONTINUOUS STANDHYD    1. 0 01: FOSTER         325. 44     36. 526 No_date    28:10    65. 13  . 735     .000
14249>       [ XI M%=. 55: TI M%=. 55]
14250>       [ LOSS= 2 : CN= 74. 0]
14251>       [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    .0]
14252>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 50: LGI =1473. : MNI =. 013: SCI =    .0]
14253>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14254>       [ SMN= 36. 67: SMX%=244. 49: SK= . 010]
14255> #*********************************************************************
14256> #     Foster Pond
14257> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
14258> #     and a ratio of the catchment area to the West Clarke pond rating curve
14259> #     from the MSS for the next coordinates
14260> #*********************************************************************
14261> R0100: C00150-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14262>     ROUTE RESERVOIR  ->    1. 0 02: FOSTER         325. 44     36. 526 No_date    28:10    65. 13  n/ a      .000
14263>                              out <=    1. 0 01: P_FOS       325. 44      9. 091 No_date    29:01    65. 13  n/ a      .000
14264>                    overflow <=    1. 0 03: FO- OVF          .00       . 000 No_date     0:00      . 00  n/ a      .000
14265>       [ MxSt oRes= 8792E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
14266> R0100: C00151-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14267>     ADD HYD                1. 0 02: P_FOS          325. 44      9. 091 No_date    29:01    65. 13  n/ a      .000
14268>                          +    1. 0 02: FO- OVF          .00       . 000 No_date     0:00      . 00  n/ a      .000
14269>                        SUM=   1. 0 01: FOSTER- OUT    325. 44      9. 091 No_date    29:01    65. 13  n/ a      .000
14270> #*********************************************************************
14271> R0100: C00152-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14272>     CONTINUOUS STANDHYD    1. 0 01: W_CLAR_BRA      73. 29     11. 683 No_date    28:05    70. 23  n/ a      .000
14273>       [ XI M%=. 60: TI M%=. 65]
14274>       [ LOSS= 2 : CN= 77. 0]
14275>       [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14276>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 50: LGI = 699. : MNI =. 013: SCI =    .0]
14277>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14278>       [ SMN= 31. 15: SMX%=207. 66: SK= . 010]
14279> R0100: C00153-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14280>     ROUTE RESERVOIR  ->    1. 0 02: W_CLAR_BRA      73. 29     11. 683 No_date    28:05    70. 23  n/ a      .000
14281>                              out <=    1. 0 01: MS_P10       73. 29      1. 240 No_date    29:12    70. 23  n/ a      .000
14282>                    overflow <=    1. 0 03: P10- OVF         .00       . 000 No_date     0:00      . 00  n/ a      .000
14283>       [ MxSt oRes= 2223E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
14284> R0100: C00154-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14285>     CONTINUOUS STANDHYD    1. 0 01: S-1-FO- D2       4. 94      . 896 No_date    28:00    65. 13  . 735     .000
14286>       [ XI M%=. 55: TI M%=. 55]
14287>       [ LOSS= 2 : CN= 74. 0]
14288>       [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    .0]
14289>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 50: LGI = 181. : MNI =. 013: SCI =    .0]
14290>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14291>       [ SMN= 36. 67: SMX%=244. 49: SK= . 010]
14292> R0100: C00155-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14293>     ADD HYD                1. 0 02: FOSTER- OUT     325. 44      9. 091 No_date    29:01    65. 13  n/ a      .000
14294>                          +    1. 0 02: S-1-FO- D2       4. 94      . 896 No_date    28:00    65. 13  n/ a      .000
14295>                        SUM=   1. 0 01: 980           330. 38      9. 176 No_date    29:00    65. 13  n/ a      .000
14296> R0100: C00156-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14297>     SAVE HYD               1. 0 01: 980            330. 38      9. 176 No_date    29:00    65. 13  n/ a      .000
14298>       fname : 980. 0100
14299>       remark: Total Flows at Station 980 on Foster Drain
14300> #
14301> # Hydrograph from Node Foster SWM ( Station 980) to Node at station 520
14302> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
14303> #
14304> R0100: C00157-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14305>     ROUTE CHANNEL    ->    1. 0 02: 980            330. 38      9. 176 No_date    29:00    65. 13  n/ a      .000
14306> *   [ RDT= 1. 00] out <-    1. 0 01: 980- out       330. 38      8. 694 No_date    29:39    65. 13  n/ a      .000
14307>       [ L/ S/ n=   460. /  . 043/ . 035]
14308>       [ Vmx=   . 538: Dmx=  1. 670]
14309> R0100: C00158-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14310>     CONTINUOUS STANDHYD    1. 0 01: S-1-FO DI        5. 11     1. 040 No_date    28:00    69. 99  . 790     .000
14311>       [ XI M%=. 65: TI M%=. 65]
14312>       [ LOSS= 2 : CN= 74. 0]
14313>       [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    .0]
14314>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 50: LGI = 185. : MNI =. 013: SCI =    .0]
14315>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14316>       [ SMN= 36. 67: SMX%=244. 49: SK= . 010]
14317> R0100: C00159-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14318>     ADD HYD                1. 0 02: 980- out       330. 38      8. 694 No_date    29:39    65. 13  n/ a      .000
14319>                          +    1. 0 02: S-1-FO DI        5. 11     1. 040 No_date    28:00    69. 99  n/ a      .000
14320>                        SUM=   1. 0 01: 520           335. 49      8. 749 No_date    29:17    65. 20  n/ a      .000
14321> R0100: C00160-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14322>     SAVE HYD               1. 0 01: 520            335. 49      8. 749 No_date    29:17    65. 20  n/ a      .000
14323>       fname : 520. 0100
14324>       remark: Total Flows at Sation 520 on Foster Drain
14325> # Hydrograph from Node at Station 520 ( Foster Drain) to Node at station 6016 ( Jock River)
14326> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
14327> #
14328> R0100: C00161-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14329>     ROUTE CHANNEL    ->    1. 0 02: 520            335. 49      8. 749 No_date    29:17    65. 20  n/ a      .000
14330>       [ RDT= 1. 00] out <-    1. 0 01: 520- out       335. 49      8. 704 No_date    29:40    65. 20  n/ a      .000
14331>       [ L/ S/ n=   860. /  . 587/ . 035]
14332>       [ Vmx=  1. 596: Dmx=  . 801]
14333> R0100: C00162-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14334>     CONTINUOUS STANDHYD    1. 0 01: S-1-FO F- D      14. 96     2. 819 No_date    28:01    69. 99  . 790     .000
14335>       [ XI M%=. 65: TI M%=. 65]
14336>       [ LOSS= 2 : CN= 74. 0]
14337>       [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    .0]
14338>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 50: LGI = 316. : MNI =. 013: SCI =    .0]
14339>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14340>       [ SMN= 36. 67: SMX%=244. 49: SK= . 010]
14341> R0100: C00163-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14342>     CONTINUOUS STANDHYD    1. 0 01: S-1-D8           5. 27     1. 181 No_date    28:01    51. 48  . 581     .000
14343>       [ XI M%=. 32: TI M%=. 65]
14344>       [ Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14345>       [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14346>       [ Impervious     area: I Aimp=  . 79: SLPI =. 75: LGI = 187. : MNI =. 013: SCI =    .0]
14347>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14348> R0100: C00164-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14349>     CONTINUOUS NASHHD      1. 0 01: S-1-A           75. 88     3. 578 No_date    28:36    45. 95  . 519     .000
14350>       [ CN= 77. 0: N= 3. 00: Tp=    . 62]
14351>       [ I aREC= 4. 00: SMN= 31. 15: SMX%=207. 66: SK= . 010]
14352>       [ I nt er Event Ti me=   12. 00]
14353> R0100: C00165-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14354>     CONTINUOUS NASHHD      1. 0 01: W_CLAR_UND       35. 65     1. 108 No_date    29:10    45. 95  . 519     .000
14355>       [ CN= 77. 0: N= 3. 00: Tp=  1. 10]
14356>       [ I aREC= 4. 00: SMN= 31. 15: SMX%=207. 66: SK= . 010]
14357>       [ I nt er Event Ti me=   12. 00]
14358> R0100: C00166-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14359>     ADD HYD                1. 0 02: N_FO           53577. 82   147. 535 No_date    33:30    38. 86  n/ a      .000
14360>                          +    1. 0 02: 520- out       335. 49      8. 704 No_date    29:40    65. 20  n/ a      .000
14361>                          +    1. 0 02: MS_P10          73. 29     1. 240 No_date    29:12    70. 23  n/ a      .000
14362>                          +    1. 0 02: P10- OVF          .00       . 000 No_date     0:00      . 00  n/ a      .000
14363>                          +    1. 0 02: W_CLAR_UND       35. 65     1. 108 No_date    29:10    45. 95  n/ a      .000
14364>                          +    1. 0 02: S-1-FO F- D      14. 96     2. 819 No_date    28:01    69. 99  n/ a      .000
14365>                          +    1. 0 02: S-1-D8           5. 27     1. 181 No_date    28:01    51. 48  n/ a      .000
14366>                          +    1. 0 02: S-1-A           75. 88     3. 578 No_date    28:36    45. 95  n/ a      .000
14367>                        SUM=   1. 0 01: SN_FO         54118. 36   153. 186 No_date    33:05    39. 09  n/ a      .000
14368> R0100: C00167-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14369>     SAVE HYD               1. 0 01: SN_FO          54118. 36   153. 186 No_date    33:05    39. 09  n/ a      .000
14370>       fname : SN_FO 0100
14371>       remark: Total Flows at Foster Drain
14372> # Hydrograph from Node Foster routed to Node at Cedarview Road
14373> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
14374> #
14375> R0100: C00168-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14376>     ROUTE CHANNEL    ->    1. 0 02: SN_FO          54118. 36   153. 186 No_date    33:05    39. 09  n/ a      .000
14377> *   [ RDT= 1. 00] out <-    1. 0 01: N_CE           54118. 36   152. 906 No_date    33:31    39. 09  n/ a      .000
14378>       [ L/ S/ n=   159. /  . 082/ . 035]
14379>       [ Vmx=  1. 455: Dmx=  4. 470]
14380> #*********************************************************************
14381> #     Catchment S-1
14382> #     - To Jock River (north and south of Jock)
14383> #     - Primarily agricultural fields; portion of sand quarry
14384> #*********************************************************************
14385> R0100: C00169-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14386>     CONTINUOUS NASHHD      1. 0 01: S-1-B           55. 36     3. 260 No_date    28:23    45. 95  . 519     .000
14387>       [ CN= 77. 0: N= 3. 00: Tp=    . 45]
14388>       [ I aREC= 4. 00: SMN= 31. 15: SMX%=207. 66: SK= . 010]
14389>       [ I nt er Event Ti me=   12. 00]
14390> #     - JFSA 2021-02-24 change the name from S-1- BCDC to S-1-A and S-1- B. Change their TP values based on the new areas
14391> #     - JFSA 2021-02-24 "S-1- BCDC-1" and "S-1- BCDC-2" are not existing anymore. "S-1- BCDC-1" is part of "S-1-FO D2" and
14392> #     - JFSA 2021-01-19, after adding Greenbank pond, "S-1- BCDC-3" is not existing anymore
14393> R0100: C00170-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14394>     CONTINUOUS STANDHYD    1. 0 01: S-1-D1          21. 67     4. 117 No_date    28:01    70. 58  . 797     .000
14395>       [ XI M%=. 65: TI M%=. 65]
14396>       [ LOSS= 2 : CN= 75. 0]
14397>       [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14398>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 75: LGI = 380. : MNI =. 013: SCI =    .0]
14399>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14400>       [ SMN= 33. 81: SMX%=225. 43: SK= . 010]
14401> R0100: C00171-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14402>     CONTINUOUS STANDHYD    1. 0 01: S-1-D4           3. 28      . 705 No_date    28:00    70. 58  . 797     .000
14403>       [ XI M%=. 65: TI M%=. 65]
14404>       [ LOSS= 2 : CN= 75. 0]
14405>       [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14406>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 75: LGI = 148. : MNI =. 013: SCI =    .0]
14407>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14408>       [ SMN= 33. 81: SMX%=225. 43: SK= . 010]
14409> R0100: C00172-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14410>     CONTINUOUS STANDHYD    1. 0 01: S-1-D5          12. 84     2. 544 No_date    28:01    70. 58  . 797     .000
14411>       [ XI M%=. 65: TI M%=. 65]
14412>       [ LOSS= 2 : CN= 75. 0]
14413>       [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14414>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 75: LGI = 293. : MNI =. 013: SCI =    .0]
14415>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14416>       [ SMN= 33. 81: SMX%=225. 43: SK= . 010]
14417> R0100: C00173-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14418>     CONTINUOUS STANDHYD    1. 0 01: S-1-D6           1. 75      . 382 No_date    28:00    70. 58  . 797     .000
14419>       [ XI M%=. 65: TI M%=. 65]
14420>       [ LOSS= 2 : CN= 75. 0]
14421>       [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14422>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 75: LGI = 108. : MNI =. 013: SCI =    .0]
14423>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14424>       [ SMN= 33. 81: SMX%=225. 43: SK= . 010]
14425> R0100: C00174-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14426>     CONTINUOUS STANDHYD    1. 0 01: S-1-D7           2. 03      . 442 No_date    28:00    70. 58  . 797     .000
14427>       [ XI M%=. 65: TI M%=. 65]
14428>       [ LOSS= 2 : CN= 75. 0]
14429>       [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14430>       [ Impervious     area: I Aimp= 1. 57: SLPI =. 75: LGI = 116. : MNI =. 013: SCI =    .0]
14431>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14432>       [ SMN= 33. 81: SMX%=225. 43: SK= . 010]
14433> #     Catchment W_CLAR
14434> #     - To West Clarke Drain (south of the Jock)
14435> #     - Subdivision with 436 mp. as per Barrhaven South MSS
14436> #     - 2020-11-30 update CLARKE Tributary Drainage Area to = 121 ha based on P598(04)-11
14437> #     - 2020-11-30 split CLARKE Drainage Area to MVOR and ALL.
14438> #*********************************************************************
14439> R0100: C00175-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14440>     CONTINUOUS STANDHYD    1. 0 01: W_CLAR_MI        1. 77      . 332 No_date    28:00    66. 20  . 747     .000
14441>       [ XI M%=. 46: TI M%=. 59]
14442>       [ LOSS= 2 : CN= 77. 0]
14443>       [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14444>       [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI = 109. : MNI =. 013: SCI =    .0]
14445>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14446>       [ SMN= 31. 15: SMX%=207. 66: SK= . 010]
14447> # 5- Year = 12% Capture
14448> R0100: C00176-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14449>     ROUTE RESERVOIR  ->    1. 0 02: W_CLAR_MI        1. 77      . 332 No_date    28:00    66. 20  n/ a      .000
14450>                              out <=    1. 0 01: W_CLAR_Mn        1. 69      . 213 No_date    27:52    66. 22  n/ a      .000
14451>                    overflow <=    1. 0 03: W_CLAR_Mj         .08       . 115 No_date    28:01    66. 20  n/ a      .000
14452>       [ MxSt oRes= . 1530E- 03  m3,  Tot Or f Vol =. 5337E- 02  m3,  N- Or f =      1,  Tot Dur Or f =     0. hrs]
14453> R0100: C00177-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14454>     CONTINUOUS STANDHYD    1. 0 01: W_CLAR_ALL      119. 40     19. 638 No_date    28:04    70. 23  . 793     .000
14455>       [ XI M%=. 60: TI M%=. 65]
14456>       [ LOSS= 2 : CN= 77. 0]
14457>       [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
14458>       [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI = 892. : MNI =. 013: SCI =    .0]
14459>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14460>       [ SMN= 31. 15: SMX%=207. 66: SK= . 010]
14461> R0100: C00178-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14462>     ADD HYD                1. 0 02: W_CLAR_ALL      119. 40     19. 638 No_date    28:04    70. 23  n/ a      .000
14463>                          +    1. 0 02: W_CLAR_Mj         .08       . 115 No_date    28:01    66. 20  n/ a      .000
14464>                        SUM=   1. 0 01: W_CLAR         119. 48     19. 657 No_date    28:04    70. 22  n/ a      .000
14465> R0100: C00179-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14466>     SAVE HYD               1. 0 01: W_CLAR         119. 48     19. 657 No_date    28:04    70. 22  n/ a      .000
14467>       fname : W_CLAR 0100
14468>       remark: Total Flows to West Clarke
14469> #*********************************************************************
14470> #     West Clarke Pond 2
14471> #     - Rating curve obtained from Barrhaven South MSS modeling
14472> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
14473> #*********************************************************************
14474> R0100: C00180-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14475>     ROUTE RESERVOIR  ->    1. 0 02: W_CLAR         119. 48     19. 657 No_date    28:04    70. 22  n/ a      .000
14476>                              out <=    1. 0 01: MS_P2        119. 48     13. 064 No_date    28:13    70. 22  n/ a      .000
14477>                    overflow <=    1. 0 03: P2- OVF          .00       . 000 No_date     0:00      . 00  n/ a      .000
14478>       [ MxSt oRes= . 3189E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
14479> #*********************************************************************
14480> R0100: C00181-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14481>     ADD HYD                1. 0 02: N_CE           54118. 36   152. 906 No_date    33:31    39. 09  n/ a      .000
14482>                          +    1. 0 02: S-1-D4           3. 28      . 705 No_date    28:00    70. 58  n/ a      .000
14483>                          +    1. 0 02: S-1-D5          12. 84     2. 544 No_date    28:01    70. 58  n/ a      .000
14484>                          +    1. 0 02: MS_P2          119. 48     13. 064 No_date    28:13    70. 22  n/ a      .000
14485>                          +    1. 0 02: P2- OVF          .00       . 000 No_date     0:00      . 00  n/ a      .000
14486>                        SUM=   1. 0 01: SN_CE         54253. 96   153. 868 No_date    33:31    39. 17  n/ a      .000
14487> R0100: C00182-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14488>     SAVE HYD               1. 0 01: SN_CE          54253. 96   153. 868 No_date    33:31    39. 17  n/ a      .000
14489>       fname : SN_CE 0100
14490>       remark: Total Flows before Station 5737 on Jock River
14491> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
14492> # 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-16\Des
14493> # JFSA 2021-03-02  change the slope to 0.0175% instead of 0.02593 to stabilize the model
14494> R0100: C00183-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14495>     ROUTE CHANNEL    ->    1. 0 02: SN_CE          54253. 96   153. 868 No_date    33:31    39. 17  n/ a      .000
14496> *   [ RDT= 1. 00] out <-    1. 0 01: 5737           54253. 96   144. 122 No_date    35:48    39. 17  n/ a      .000
14497>       [ L/ S/ n=   270. /  . 018/ . 035]
14498>       [ Vmx=  . 871: Dmx=  5. 567]
14499> R0100: C00184-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14500>     ADD HYD                1. 0 02: 5737           54253. 96   144. 122 No_date    35:48    39. 17  n/ a      .000
14501>                          +    1. 0 02: S-1- DI          21. 67     4. 117 No_date    28:01    70. 58  n/ a      .000
14502>                          +    1. 0 02: S-1- D6           1. 75      . 382 No_date    28:00    70. 58  n/ a      .000
14503>                          +    1. 0 02: S-1- D7           2. 03      . 442 No_date    28:00    70. 58  n/ a      .000
14504>                        SUM=   1. 0 01: 5002           54279. 41   144. 226 No_date    35:48    39. 18  n/ a      .000
14505> R0100: C00185-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14506>     SAVE HYD               1. 0 01: 5002           54279. 41   144. 226 No_date    35:48    39. 18  n/ a      .000
14507>       fname : 5002. 0100
14508>       remark: Total Flows before Station 5002 on Jock River
14509> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
14510> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
14511> # JFSA 2021-02-19 Change the slope from 0.01 % ( as per Stantec Report 2007) to 0.0255 % so the model will be more stable
14512> # JFSA 2021-02-19 Change to the CHANNEL with length 375 m each instead of one with 825 m length so the model wil
14513> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
14514> R0100: C00186-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14515>     ROUTE CHANNEL    ->    1. 0 02: 5002           54279. 41   144. 226 No_date    35:48    39. 18  n/ a      .000
14516> *   [ RDT= 1. 00] out <-    1. 0 01: N_WCa          54279. 41   144. 212 No_date    35:53    39. 19  n/ a      .000
14517>       [ L/ S/ n=   245. /  . 095/ . 035]
14518>       [ Vmx=  1. 317: Dmx=  3. 143]
14519> R0100: C00187-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14520>     ROUTE CHANNEL    ->    1. 0 02: N_WCa          54279. 41   144. 212 No_date    35:53    39. 19  n/ a      .000
14521> *   [ RDT= 1. 00] out <-    1. 0 01: N_WCb          54279. 41   144. 188 No_date    36:00    39. 19  n/ a      .000
14522>       [ L/ S/ n=   245. /  . 095/ . 035]
14523>       [ Vmx=  1. 317: Dmx=  3. 143]
14524> R0100: C00188-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14525>     ROUTE CHANNEL    ->    1. 0 02: N_WCb          54279. 41   144. 188 No_date    36:00    39. 19  n/ a      .000
14526> *   [ RDT= 1. 00] out <-    1. 0 01: N_WC           54279. 41   144. 176 No_date    36:05    39. 19  n/ a      .000
14527>       [ L/ S/ n=   245. /  . 095/ . 035]
14528>       [ Vmx=  1. 317: Dmx=  3. 143]
14529> #*********************************************************************
14530> # Hydrograph from Node West Clarke routed to Node at Kennedy- Burnett Drain
14531> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
14532> #
14533> R0100: C00189-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14534>     ROUTE CHANNEL    ->    1. 0 02: N_WC           54279. 41   144. 176 No_date    36:05    39. 19  n/ a      .000
14535> *   [ RDT= 1. 00] out <-    1. 0 01: N_KB           54279. 41   143. 629 No_date    36:32    39. 19  n/ a      .000
14536>       [ L/ S/ n=  1020. /  . 050/ . 035]
14537>       [ Vmx=  1. 006: Dmx=  3. 865]
14538> #*********************************************************************
14539> #     Catchment KEN_BU
14540> #     - To Kennedy- Burnett SWM Facility
14541> #     - Outlets to Fraser- Clarke drain (north of the Jock)
14542> #     - Medium density residential subdivision
14543> #*********************************************************************
14544> #*********************************************************************
14545> #     Existing Kennedy- Burnett SWM Facility
14546> #     - Rating curve obtained from URTKHP
14547> #     - Tributary Drainage Area to Pond = 160 ha
14548> #*********************************************************************
14549> R0100: C00190-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14550>     CONTINUOUS STANDHYD    1. 0 01: KB- 01A          40. 82     5. 490 No_date    28:09    36. 71  . 415     .000
14551>       [ XI M%=. 10: TI M%=. 40]
14552>       [ Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14553>       [ Pervious       area: I Aper= 4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    .0]
14554>       [ Impervious     area: I Aimp=  . 79: SLPI =. 50: LGI = 522. : MNI =. 013: SCI =    .0]
14555>       [ I aREC i mp=   4. 00: I aREC per=    4. 00]
14556> R0100: C00191-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14557>     COMPUTE DUALHYD        1. 0 01: KB- 01A          40. 82     5. 490 No_date    28:09    36. 71  n/ a      .000
14558>       Major System   /     1. 0 02: KB- 01A- MI        .00       . 000 No_date     0:00      . 00  n/ a      .000
14559>       Minor System   \     1. 0 03: KB- 01A- MN      40. 82     3. 600 No_date    28:44    36. 91  n/ a      .000
14560>       [ MJ Sys St o=. 1774E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
14561> R0100: C00192-------------DTmin-I D: NHYD---------AREAha- QPEAK cms- Tpeak Dat e_hh: mm----RVmm R. C. ---DWFcms
14562>     ADD HYD                1. 0 02: KB- 01A- MI        .00       . 000 No_date     0:00      . 00  n/ a      .000
14563>                          +    1. 0 02: KB- 01A- MN      40. 82     3. 600 No_date    28:44    36. 91  n/ a      .000
14564>                        SUM=   1. 0 01: KB- 01A- S       40. 82     3. 600 No_date    28:44    36. 91  n/ a      .000
14565> R0
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14587>          [ IaRECI mp=    4. 00: IaRECPer=    4. 00]
14588> R0100: C00197- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14589>       COMPUTE DUALHYD          1. 0 01: KB- 01C          13. 78      2. 471 No_date    28: 03     41. 89    n/ a      . 000
14590>         Major System   /       1. 0 02: KB- 01C- MI        . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14591>         Minor System   \       1. 0 03: KB- 01C- MN      13. 78      1. 350 No_date    28: 37     42. 09    n/ a      . 000
14592>          [ MJ SysSt o=. 8650E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14593> R0100: C00198- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14594>       ADD HYD                  1. 0 02: KB- 01C- MI        . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14595>                      +         1. 0 02: KB- 01C- MN      13. 78      1. 350 No_date    28: 37     42. 09    n/ a      . 000
14596>                    SUM-        1. 0 01: KB- 01C- S       13. 78      1. 350 No_date    28: 37     42. 09    n/ a      . 000
14597> R0100: C00199- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14598>       CONTI NUOUS STANDHYD     1. 0 01: KB- 03           84. 78     12. 777 No_date    28: 07     41. 33    . 467     . 000
14599>          [ XI MP=.  20: TI MP=.  39]
14600>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14601>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14602>          [ I mper vi ous   area: I Ai mp=   . 79: SLPI =  . 63: LGI =  752. : MNI =. 013: SCI =   . 0]
14603>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14604> R0100: C00200- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14605>       COMPUTE DUALHYD          1. 0 01: KB- 03           84. 78     12. 777 No_date    28: 07     41. 33    n/ a      . 000
14606>         Major System   /       1. 0 02: KB- 03- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14607>         Minor System   \       1. 0 03: KB- 03- MN       84. 78      5. 270 No_date    29: 11     41. 33    n/ a      . 000
14608>          [ MJ SysSt o=. 8591E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14609> R0100: C00201- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14610>       ADD HYD                  1. 0 03: KB- MI             . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14611>                      +         1. 0 02: KB- 03- MN       84. 78      5. 270 No_date    29: 11     41. 33    n/ a      . 000
14612>                    SUM-        1. 0 01: KB- 03- S        84. 78      5. 270 No_date    29: 11     41. 33    n/ a      . 000
14613> R0100: C00202- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14614>       CONTI NUOUS STANDHYD     1. 0 01: KB- 04           6. 95      1. 754 No_date    28: 00     78. 30    . 884     . 000
14615>          [ XI MP=. 85: TI MP=. 85]
14616>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14617>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14618>          [ I mper vi ous   area: I Ai mp=   . 94: SLPI =  . 50: LGI =  215. : MNI =. 013: SCI =   . 0]
14619>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14620> R0100: C00203- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14621>       COMPUTE DUALHYD          1. 0 01: KB- 04           6. 95      1. 754 No_date    28: 00     78. 30    n/ a      . 000
14622>         Major System   /       1. 0 02: KB- 04- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14623>         Minor System   \       1. 0 03: KB- 04- MN       6. 95       . 503 No_date    27: 43     78. 64    n/ a      . 000
14624>          [ MJ SysSt o=. 1121E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14625> R0100: C00204- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14626>       ADD HYD                  1. 0 02: KB- 04- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14627>                      +         1. 0 02: KB- 04- MN       6. 95       . 503 No_date    27: 43     78. 64    n/ a      . 000
14628>                    SUM-        1. 0 01: KB- 04- S        6. 95       . 503 No_date    27: 43     78. 64    n/ a      . 000
14629> R0100: C00205- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14630>       CONTI NUOUS STANDHYD     1. 0 01: KB- 05           5. 19      1. 406 No_date    28: 00     82. 69    . 934     . 000
14631>          [ XI MP=. 93: TI MP=. 93]
14632>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14633>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14634>          [ I mper vi ous   area: I Ai mp=   1. 57: SLPI =  . 50: LGI =  186. : MNI =. 013: SCI =   . 0]
14635>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14636> R0100: C00206- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14637>       CONTI NUOUS STANDHYD     1. 0 01: KB- 06          12. 93      3. 585 No_date    28: 00     79. 73    . 900     . 000
14638>          [ XI MP=. 87: TI MP=. 87]
14639>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14640>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14641>          [ I mper vi ous   area: I Ai mp=   . 94: SLPI =4. 75: LGI =  294. : MNI =. 013: SCI =   . 0]
14642>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14643> R0100: C00207- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14644>       COMPUTE DUALHYD          1. 0 01: KB- 06          12. 93      3. 585 No_date    28: 00     79. 73    n/ a      . 000
14645>         Major System   /       1. 0 02: KB- 06- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14646>         Minor System   \       1. 0 03: KB- 06- MN       12. 93      2. 262 No_date    27: 51     79. 89    n/ a      . 000
14647>          [ MJ SysSt o=. 6247E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14648> R0100: C00208- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14649>       ADD HYD                  1. 0 03: KB- 06- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14650>                      +         1. 0 02: KB- 06- MN       12. 93      2. 262 No_date    27: 51     79. 89    n/ a      . 000
14651>                    SUM-        1. 0 01: KB- 06- S        12. 93      2. 262 No_date    27: 51     79. 89    n/ a      . 000
14652> R0100: C00209- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14653>       CONTI NUOUS STANDHYD     1. 0 01: KB- 11           4. 03      1. 012 No_date    28: 00     67. 54    . 763     . 000
14654>          [ XI MP=. 68: TI MP=. 68]
14655>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14656>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14657>          [ I mper vi ous   area: I Ai mp=   . 79: SLPI =2. 00: LGI =  164. : MNI =. 013: SCI =   . 0]
14658>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14659> R0100: C00210- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14660>       COMPUTE DUALHYD          1. 0 01: KB- 11           4. 03      1. 012 No_date    28: 00     67. 54    n/ a      . 000
14661>         Major System   /       1. 0 02: KB- 11- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14662>         Minor System   \       1. 0 03: KB- 11- MN       4. 03       . 577 No_date    27: 51     67. 60    n/ a      . 000
14663>          [ MJ SysSt o=. 2184E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14664> R0100: C00211- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14665>       ADD HYD                  1. 0 02: KB- 11- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14666>                      +         1. 0 02: KB- 11- MN       4. 03       . 577 No_date    27: 51     67. 60    n/ a      . 000
14667>                    SUM-        1. 0 01: KB- 11- S        4. 03       . 577 No_date    27: 51     67. 60    n/ a      . 000
14668> R0100: C00212- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14669>       CONTI NUOUS STANDHYD     1. 0 01: S1               4. 99      1. 426 No_date    28: 00     82. 69    . 934     . 000
14670>          [ XI MP=. 93: TI MP=. 93]
14671>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14672>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14673>          [ I mper vi ous   area: I Ai mp=   1. 57: SLPI =2. 00: LGI =  182. : MNI =. 013: SCI =   . 0]
14674>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14675> R0100: C00213- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14676>       CONTI NUOUS STANDHYD     1. 0 01: KB- 15           2. 15       . 548 No_date    28: 00     75. 20    . 849     . 000
14677>          [ XI MP=. 79: TI MP=. 79]
14678>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14679>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14680>          [ I mper vi ous   area: I Ai mp=   . 16: SLPI =  . 30: LGI =  120. : MNI =. 013: SCI =   . 0]
14681>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14682> R0100: C00214- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14683>       ADD HYD                  1. 0 02: KB- 01A- S       40. 82      3. 600 No_date    28: 44     36. 91    n/ a      . 000
14684>                      +         1. 0 02: KB- 01B- S       31. 10      1. 585 No_date    28: 51     40. 77    n/ a      . 000
14685>                      +         1. 0 02: KB- 01C- S       13. 78      1. 350 No_date    28: 37     42. 09    n/ a      . 000
14686>                      +         1. 0 02: KB- 03- S        84. 78      5. 270 No_date    29: 11     41. 33    n/ a      . 000
14687>                      +         1. 0 02: KB- 04- S        6. 95       . 503 No_date    27: 43     78. 64    n/ a      . 000
14688>                      +         1. 0 02: KB- 05           5. 19      1. 406 No_date    28: 00     82. 69    n/ a      . 000
14689>                      +         1. 0 02: KB- 06- S        12. 93      2. 262 No_date    27: 51     79. 89    n/ a      . 000
14690>                      +         1. 0 02: KB- 11- S        4. 03       . 577 No_date    27: 51     67. 60    n/ a      . 000
14691>                      +         1. 0 02: KB- 15           2. 15       . 548 No_date    28: 00     75. 20    n/ a      . 000
14692>                      +         1. 0 02: S1               4. 99      1. 426 No_date    28: 00     82. 69    n/ a      . 000
14693>                    SUM-        1. 0 01: KB- P1         206. 72     18. 527 No_date    28: 00     46. 99    n/ a      . 000
14694> R0100: C00215- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14695>       ROUTE RESERVOIR - >      1. 0 02: KB- P1           206. 72     18. 527 No_date    28: 00     46. 99    n/ a      . 000
14696>                        out <=  1. 0 01: KB- P1R          196. 58     12. 438 No_date    28: 00     46. 99    n/ a      . 000
14697>                  overflow <=   1. 0 03: KB- P1ovf         10. 14      6. 062 No_date    28: 00     46. 99    n/ a      . 000
14698>          [ MxSt ol ked=. 7330E+00   m3,  Tot Or f Vol =. 4763E+00   m3,  N- Or f =      2,  Tot Dur Or f =      1. hr s]
14699> R0100: C00216- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14700>       ADD HYD                  1. 0 02: KB- P1R          196. 58     12. 438 No_date    28: 00     46. 99    n/ a      . 000
14701>                      +         1. 0 02: KB- P1ovf         10. 14      6. 062 No_date    28: 00     46. 99    n/ a      . 000
14702>                    SUM-        1. 0 01: KB- Pond1        206. 72     18. 500 No_date    28: 00     46. 99    n/ a      . 000
14703> R0100: C00217- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14704>       SAVE HYD                 1. 0 01: KB- Pond1        206. 72     18. 500 No_date    28: 00     46. 99    n/ a      . 000
14705>          fname: KB- Pond1. 0100
14706>          remark: Total Flows at KB first pond
14707> R0100: C00218- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14708>       CONTI NUOUS STANDHYD     1. 0 01: KB- 07           10. 86      2. 908 No_date    28: 00     79. 06    . 893     . 000
14709>          [ XI MP=. 86: TI MP=. 86]
14710>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14711>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14712>          [ I mper vi ous   area: I Ai mp=   . 79: SLPI =2. 00: LGI =  269. : MNI =. 013: SCI =   . 0]
14713>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14714> R0100: C00219- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14715>       COMPUTE DUALHYD          1. 0 01: KB- 07           10. 86      2. 908 No_date    28: 00     79. 06    n/ a      . 000
14716>         Major System   /       1. 0 02: KB- 07- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14717>         Minor System   \       1. 0 03: KB- 07- MN       10. 86      2. 094 No_date    27: 53     79. 26    n/ a      . 000
14718>          [ MJ SysSt o=. 3334E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14719> R0100: C00220- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14720>       ADD HYD                  1. 0 02: KB- 07- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14721>                      +         1. 0 02: KB- 07- MN       10. 86      2. 094 No_date    27: 53     79. 26    n/ a      . 000
14722>                    SUM-        1. 0 01: KB- 07- S        10. 86      2. 094 No_date    27: 53     79. 26    n/ a      . 000
14723> R0100: C00221- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14724>       CONTI NUOUS STANDHYD     1. 0 01: KB- 08           6. 61      1. 609 No_date    28: 00     65. 36    . 738     . 000
14725>          [ XI MP=. 64: TI MP=. 64]
14726>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14727>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14728>          [ I mper vi ous   area: I Ai mp=   . 79: SLPI =2. 00: LGI =  210. : MNI =. 013: SCI =   . 0]
14729>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14730> R0100: C00222- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14731>       COMPUTE DUALHYD          1. 0 01: KB- 08           6. 61      1. 609 No_date    28: 00     65. 36    n/ a      . 000
14732>         Major System   /       1. 0 02: KB- 08- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14733>         Minor System   \       1. 0 03: KB- 08- MN       6. 61      1. 058 No_date    27: 52     65. 50    n/ a      . 000
14734>          [ MJ SysSt o=. 2397E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14735> R0100: C00223- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14736>       ADD HYD                  1. 0 02: KB- 08- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14737>                      +         1. 0 02: KB- 08- MN       6. 61      1. 058 No_date    27: 52     65. 50    n/ a      . 000
14738>                    SUM-        1. 0 01: KB- 08- S        6. 61      1. 058 No_date    27: 52     65. 50    n/ a      . 000
14739> R0100: C00224- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14740>       CONTI NUOUS STANDHYD     1. 0 01: KB- 09           2. 60       . 727 No_date    28: 00     78. 38    . 885     . 000
14741>          [ XI MP=. 86: TI MP=. 86]
14742>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14743>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14744>          [ I mper vi ous   area: I Ai mp=   1. 57: SLPI =2. 00: LGI =  132. : MNI =. 013: SCI =   . 0]
14745>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14746> R0100: C00225- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14747>       CONTI NUOUS STANDHYD     1. 0 01: KB- 10_1         2. 37       . 663 No_date    28: 00     78. 39    . 885     . 000
14748>          [ XI MP=. 86: TI MP=. 86]
14749>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14750>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14751>          [ I mper vi ous   area: I Ai mp=   1. 57: SLPI =2. 00: LGI =  126. : MNI =. 013: SCI =   . 0]
14752>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14753> R0100: C00226- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14754>       CONTI NUOUS STANDHYD     1. 0 01: KB- 10_2         1. 14       . 322 No_date    28: 00     78. 39    . 885     . 000
14755>          [ XI MP=. 86: TI MP=. 86]
14756>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14757>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14758>          [ I mper vi ous   area: I Ai mp=   1. 57: SLPI =2. 00: LGI =   87. : MNI =. 013: SCI =   . 0]
14759>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14760> R0100: C00227- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14761>       CONTI NUOUS STANDHYD     1. 0 01: KB- 12           4. 86      1. 294 No_date    28: 00     74. 45    . 841     . 000
14762>          [ XI MP=. 79: TI MP=. 79]
14763>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14764>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14765>          [ I mper vi ous   area: I Ai mp=   1. 10: SLPI =2. 00: LGI =  180. : MNI =. 013: SCI =   . 0]
14766>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14767> R0100: C00228- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14768>       COMPUTE DUALHYD          1. 0 01: KB- 12           4. 86      1. 294 No_date    28: 00     74. 45    n/ a      . 000
14769>         Major System   /       1. 0 02: KB- 12- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14770>         Minor System   \       1. 0 03: KB- 12- MN       4. 86       . 867 No_date    28: 11     74. 79    n/ a      . 000
14771>          [ MJ SysSt o=. 1873E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14772> R0100: C00229- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14773>       ADD HYD                  1. 0 02: KB- 12- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14774>                      +         1. 0 02: KB- 12- MN       4. 86       . 867 No_date    28: 11     74. 79    n/ a      . 000
14775>                    SUM-        1. 0 01: KB- 12- S        4. 86       . 867 No_date    28: 11     74. 79    n/ a      . 000
14776> R0100: C00230- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14777>       CONTI NUOUS STANDHYD     1. 0 01: KB- 13           10. 19      2. 407 No_date    28: 00     65. 36    . 738     . 000
14778>          [ XI MP=. 64: TI MP=. 64]
14779>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14780>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14781>          [ I mper vi ous   area: I Ai mp=   . 79: SLPI =2. 00: LGI =  261. : MNI =. 013: SCI =   . 0]
14782>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14783> R0100: C00231- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14784>       COMPUTE DUALHYD          1. 0 01: KB- 13           10. 19      2. 407 No_date    28: 00     65. 36    n/ a      . 000
14785>         Major System   /       1. 0 02: KB- 13- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14786>         Minor System   \       1. 0 03: KB- 13- MN       10. 19      1. 722 No_date    27: 54     65. 63    n/ a      . 000
14787>          [ MJ SysSt o=. 2806E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14788> R0100: C00232- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14789>       ADD HYD                  1. 0 02: KB- 13- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14790>                      +         1. 0 02: KB- 13- MN       10. 19      1. 722 No_date    27: 54     65. 63    n/ a      . 000
14791>                    SUM-        1. 0 01: KB- 13- S        10. 19      1. 722 No_date    27: 54     65. 63    n/ a      . 000
14792> R0100: C00233- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14793>       CONTI NUOUS STANDHYD     1. 0 01: KB- 14           5. 47      1. 338 No_date    28: 00     65. 36    . 738     . 000
14794>          [ XI MP=. 64: TI MP=. 64]
14795>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14796>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14797>          [ I mper vi ous   area: I Ai mp=   . 79: SLPI =2. 00: LGI =  191. : MNI =. 013: SCI =   . 0]
14798>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14799> R0100: C00234- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14800>       COMPUTE DUALHYD          1. 0 01: KB- 14           5. 47      1. 338 No_date    28: 00     65. 36    n/ a      . 000
14801>         Major System   /       1. 0 02: KB- 14- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14802>         Minor System   \       1. 0 03: KB- 14- MN       5. 47       . 873 No_date    27: 52     65. 48    n/ a      . 000
14803>          [ MJ SysSt o=. 2041E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =      0. hr s]
14804> R0100: C00235- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14805>       ADD HYD                  1. 0 02: KB- 14- MI         . 00       . 000 No_date    0: 00       . 00    n/ a      . 000
14806>                      +         1. 0 02: KB- 14- MN       5. 47       . 873 No_date    27: 52     65. 48    n/ a      . 000
14807>                    SUM-        1. 0 01: KB- 14- S        5. 47       . 873 No_date    27: 52     65. 48    n/ a      . 000
14808> R0100: C00236- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14809>       CONTI NUOUS STANDHYD     1. 0 01: KB- 16_2         3. 42       . 803 No_date    28: 01     70. 16    . 792     . 000
14810>          [ XI MP=. 71: TI MP=. 71]
14811>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14812>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14813>          [ I mper vi ous   area: I Ai mp=   . 16: SLPI =  . 30: LGI =  151. : MNI =. 013: SCI =   . 0]
14814>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14815> R0100: C00237- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14816>       ADD HYD                  1. 0 02: KB- Pond1        206. 72     18. 500 No_date    28: 00     46. 99    n/ a      . 000
14817>                      +         1. 0 02: KB- 07- S        10. 86      2. 094 No_date    27: 53     79. 26    n/ a      . 000
14818>                      +         1. 0 02: KB- 08- S        6. 61       1. 058 No_date    27: 52     65. 50    n/ a      . 000
14819>                      +         1. 0 02: KB- 09           2. 60       . 727 No_date    28: 00     78. 38    n/ a      . 000
14820>                      +         1. 0 02: KB- 10_1         2. 37       . 663 No_date    28: 00     78. 38    n/ a      . 000
14821>                      +         1. 0 02: KB- 10_2         1. 14       . 322 No_date    28: 00     78. 39    n/ a      . 000
14822>                      +         1. 0 02: KB- 12- S        4. 86       . 867 No_date    28: 11     74. 79    n/ a      . 000
14823>                      +         1. 0 02: KB- 13- S        10. 19      1. 722 No_date    27: 54     65. 63    n/ a      . 000
14824>                      +         1. 0 02: KB- 14- S        5. 47       . 873 No_date    27: 52     65. 48    n/ a      . 000
14825>                      +         1. 0 02: KB- 16_2         3. 42       . 803 No_date    28: 01     70. 16    n/ a      . 000
14826>                    SUM-        1. 0 01: KB- P2         254. 24     27. 626 No_date    28: 00     51. 59    n/ a      . 000
14827> R0100: C00238- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14828>       ROUTE RESERVOIR - >      1. 0 02: KB- P2           254. 24     27. 626 No_date    28: 00     51. 59    n/ a      . 000
14829>                        out <=  1. 0 01: KB- P2R          249. 74     17. 634 No_date    28: 06     51. 59    n/ a      . 000
14830>                  overflow <=   1. 0 03: KB- P2ovf         4. 50       6. 910 No_date    28: 06     51. 59    n/ a      . 000
14831>          [ MxSt ol ked=. 1110E+01   m3,  Tot Or f Vol =. 2320E+00   m3,  N- Or f =      2,  Tot Dur Or f =      0. hr s]
14832> R0100: C00239- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14833>       ADD HYD                  1. 0 02: KB- P2R          249. 74     17. 634 No_date    28: 06     51. 59    n/ a      . 000
14834>                      +         1. 0 02: KB- P2ovf         4. 50       6. 910 No_date    28: 06     51. 59    n/ a      . 000
14835>                    SUM-        1. 0 01: KB- Pond2        254. 24     24. 544 No_date    28: 06     51. 59    n/ a      . 000
14836> R0100: C00240- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14837>       SAVE HYD                 1. 0 01: KB- Pond2        254. 24     24. 544 No_date    28: 06     51. 59    n/ a      . 000
14838>          fname: KB- Pond2. 0100
14839>          remark: Total Flows at KB second pond
14840> R0100: C00241- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14841>       CONTI NUOUS STANDHYD     1. 0 01: KB- 16_1         2. 80       . 686 No_date    28: 00     72. 68    . 821     . 000
14842>          [ XI MP=. 75: TI MP=. 75]
14843>          [ Hor ton parameter s: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
14844>          [ Per vi ous      area: I Ap=    4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14845>          [ I mper vi ous   area: I Ai mp=   . 16: SLPI =  . 30: LGI =  137. : MNI =. 013: SCI =   . 0]
14846>          [ I aRECI mp=    4. 00: I aRECPer=    4. 00]
14847> R0100: C00242- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14848>       ADD HYD                  1. 0 02: KB- Pond2        254. 24     24. 544 No_date    28: 06     51. 59    n/ a      . 000
14849>                      +         1. 0 02: KB- 16_1         2. 80       . 686 No_date    28: 00     72. 68    n/ a      . 000
14850>                    SUM-        1. 0 01: KB- P3         257. 04     24. 930 No_date    28: 06     51. 82    n/ a      . 000
14851> R0100: C00243- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14852>       ROUTE RESERVOIR - >      1. 0 02: KB- P3           257. 04     24. 930 No_date    28: 06     51. 82    n/ a      . 000
14853>                        out <=  1. 0 01: KB- P3R          8. 56       . 051 No_date    17: 08     51. 81    n/ a      . 000
14854>                  overflow <=   1. 0 03: KB- P3ovf        248. 48     24. 659 No_date    28: 07     51. 82    n/ a      . 000
14855>          [ MxSt ol ked=. 1991E-02   m3,  Tot Or f Vol =. 1288E+02   m3,  N- Or f =      1,  Tot Dur Or f =     23. hr s]
14856> R0100: C00244- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm
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14961>          Major System   /        1.0 02:JR-02-MJ          .02       .087 No_date   28:03   64.85  n/a      .000
14962>          Minor System   \        1.0 03:JR-02-MN         1.57       .153 No_date   27:44   65.24  n/a      .000
14963>          [MjSysSto=.1530E+03, TotOrfVol=.1375E+02, N-Orf=     1, TotDurOrf=     0.hrs]
14964> R0100:C00263-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14965>      ADD HYD                  1.0 02:JR-02-MJ          .02       .087 No_date   28:03   64.85  n/a      .000
14966>                         +     1.0 02:JR-02-MN         1.57       .153 No_date   27:44   65.24  n/a      .000
14967>                         SUM=  1.0 01:JR-02-S          1.59       .240 No_date   28:03   65.23  n/a      .000
14968> #*******************************************************************************
14969> #     Catchment FRASER
14970> #     - To Fraser-Clarke drain (north of the Jock)
14971> #     - Developed land with assumed 43% imp.
14972> #     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
14973> #     - 2020-12-17 All Fraser is undeveloped (Nashyd)
14974> #*******************************************************************************
14975> R0100:C00264-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14976>      CONTINUOUS NASHYD        1.0 01:FRASER-DRN       13.65       .837 No_date   28:21   45.95  .519     .000
14977>        [CN= 77.0:  N= 3.00:  Tp=     .43]
14978>        [IaREC=  4.00:  SMN=  31.15:  SMX=207.66:  SK=  .010]
14979>        [InterEventTime=  12.00]
14980> R0100:C00265-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14981>      CONTINUOUS STANDHYD      1.0 01:FRASER-D         21.61      4.106 No_date   28:01   69.71 .787       .000
14982>        [XIMP=  58:  TIMP=  58]
14983>        [LOSS=  2 :  CN=  80.0]
14984>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
14985>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  380.:  MNI=.013:  SCI=    .0]
14986>        [IaREC=  4.00:  IaRECper=    4.00]
14987>        [SMN=  26.32:  SMX=375.50:  SK=  .010]
14988> R0100:C00266-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14989>      COMPUTE DUALHYD          1.0 01:FRASER-D         21.61      4.106 No_date   28:01   69.71  n/a      .000
14990>          Major System   /        .00        .000 No_date    0:00     .00  n/a      .000
14991>          Minor System   \       1.0 03:FRASER-N        21.61      2.281 No_date   27:51   69.88  n/a      .000
14992>          [MjSysSto=.1163E+04, TotOrfVol=.0000E+00, N-Orf=     0, TotDurOrf=     0.hrs]
14993> R0100:C00267-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14994>      ADD HYD                  1.0 02:FRASER-J          .00        .000 No_date    0:00     .00  n/a      .000
14995>                         +     1.0 02:FRASER-N        21.61      2.281 No_date   27:51   69.88  n/a      .000
14996>                         SUM=  1.0 01:FRASER-S        21.61      2.281 No_date   27:51   69.88  n/a      .000
14997> R0100:C00268-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14998>      ADD HYD                  1.0 02:KB-Pond3        257.04     24.710 No_date   28:07   51.82  n/a      .000
14999>                         +     1.0 02:S-1-B            55.36      3.260 No_date   28:23   45.95  n/a      .000
15000>                         +     1.0 02:FRASER-DRN       13.65       .837 No_date   28:21   45.95  n/a      .000
15001>                         +     1.0 02:FRASER-S         21.61      2.281 No_date   27:51   69.88  n/a      .000
15002>                         +     1.0 02:N_KB          54279.41   143.629 No_date   36:32   39.19  n/a      .000
15003>                         +     1.0 02:FC-01-S           8.03       .756 No_date   27:49   54.46  n/a      .000
15004>                         +     1.0 02:FC-02-S          16.05      2.927 No_date   28:05   82.87  n/a      .000
15005>                         +     1.0 02:FC-03-S           7.37      1.019 No_date   28:06   64.90  n/a      .000
15006>                         SUM=  1.0 01:4241          54658.52   144.306 No_date   36:29   39.28  n/a      .000
15007> R0100:C00269-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15008>      SAVE HYD                 1.0 01:4241          54658.52   144.306 No_date   36:29   39.28  n/a      .000
15009>        fname :4241.0100
15010>        remark:Total Flows at Ken-Barnett Outlet
15011> # Hydrograph from Node Ken-Barnett to station 3633
15012> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
15013> #
15014> R0100:C00270-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15015>      ROUTE CHANNEL      ->    1.0 02:4241          54658.52   144.306 No_date   36:29   39.28  n/a      .000
15016>        [RDT=  1.00]  out <-    1.0 01:4241-out      54658.52   144.351 No_date   36:25   39.28  n/a      .000
15017>        [LJS/n=  294./  .109/  .035]
15018>        [Vmx=  1.395:  Dmax=  2.595]
15019> R0100:C00271-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15020>      ADD HYD                  1.0 02:4241-out      54658.52   144.351 No_date   36:25   39.28  n/a      .000
15021>                         +     1.0 02:FC-04-S          12.87      1.719 No_date   28:07   65.09  n/a      .000
15022>                         +     1.0 02:JR-01-S           8.24      1.034 No_date   28:06   64.95  n/a      .000
15023>                         +     1.0 02:JR-02-S           1.59       .240 No_date   28:03   65.23  n/a      .000
15024>                         SUM=  1.0 01:SN_KB         54681.21   144.394 No_date   36:25   39.29  n/a      .000
15025> R0100:C00272-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15026>      SAVE HYD                 1.0 01:SN_KB         54681.21   144.394 No_date   36:25   39.29  n/a      .000
15027>        fname :SN_KB.0100
15028>        remark:HYD_COMMENT=["Total Flows before Station 3633]
15029> # Hydrograph from Station 3633 to Node Todd
15030> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
15031> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
15032> #
15033> R0100:C00273-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15034>      ROUTE CHANNEL      ->    1.0 02:SN_KB         54681.21   144.394 No_date   36:25   39.29  n/a      .000
15035>        [RDT=  1.00]  out <-    1.0 01:N_TO          54681.21   144.359 No_date   36:30   39.29  n/a      .000
15036>        [LJS/n=  608./  .247/  .035]
15037>        [Vmx=  1.905:  Dmax=  1.942]
15038> #*******************************************************************************
15039> #     Catchment Greenbank
15040> #     - To Greenbank Drain (south of the Jock)
15041> #     - JFSA 2021-01-18 add Greenbank pond as per JFSA_ P598(06)-15, June 2016
15042> #     - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
15043> #*******************************************************************************
15044> R0100:C00274-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15045>      CONTINUOUS STANDHYD      1.0 01:Greenbank        36.60      7.069 No_date   28:01   71.80 .811       .000
15046>        [XIMP=  64:  TIMP=  68]
15047>        [LOSS=  2 :  CN=  77.0]
15048>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15049>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  494.:  MNI=.013:  SCI=    .0]
15050>        [IaREC=  4.00:  IaRECper=    4.00]
15051>        [SMN=  31.15:  SMX=207.66:  SK=  .010]
15052> R0100:C00275-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15053>      ROUTE RESERVOIR    ->    1.0 02:Greenbank        36.60      7.069 No_date   28:01   71.80  n/a      .000
15054>                           out <=    1.0 01:GreenB_MN      36.60      5.350 No_date   28:07   71.80  n/a      .000
15055>                      overflow <=    1.0 03:GreenB_MI        .00       .000 No_date    0:00     .00  n/a      .000
15056>        [MxStoRed=.9351E+00   m3,  TotOrfVol=.0000E+00   m3,  N-Orf=     0,  TotDurOrf=     0.hrs]
15057> R0100:C00276-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15058>      ADD HYD                  1.0 02:N_KB          54681.21   144.359 No_date   36:30   39.29  n/a      .000
15059>                         +     1.0 02:GreenB_MI        .00       .000 No_date    0:00     .00  n/a      .000
15060>                         +     1.0 02:GreenB_MN        36.60      5.350 No_date   28:07   71.80  n/a      .000
15061>                         SUM=  1.0 01:GreenB        54717.82   144.531 No_date   36:30   39.32  n/a      .000
15062> R0100:C00277-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15063>      SAVE HYD                 1.0 01:GreenB        54717.82   144.531 No_date   36:30   39.32  n/a      .000
15064>        fname :GreenB.0100
15065>        remark:Total Flows at Greenbank Drain
15066> #*******************************************************************************
15067> #     Catchment TODD
15068> #     - To Todd Drain (south of the Jock)
15069> #     - Subdivision with 43% imp. as per Barrhaven South MSS
15070> #     - 2020-11-30 increase imp. based on P598(04)-11
15071> #     - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on P598(04)-11
15072> #     - 2020-11-30 split TODD Drainage Area to MM0R, MM0R, POND and ALL
15073> #*******************************************************************************
15074> #     - JFSA 2021-01-19 add "TODD_MN1" as part of Clarke("W_CLAR_M") and remove it from Todd
15075> R0100:C00278-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15076>      CONTINUOUS STANDHYD      1.0 01:TODD_MN2          2.10       .428 No_date   28:00   66.78 .754       .000
15077>        [XIMP=  53:  TIMP=  57]
15078>        [LOSS=  2 :  CN=  77.0]
15079>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15080>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  118.:  MNI=.013:  SCI=    .0]
15081>        [IaREC=  4.00:  IaRECper=    4.00]
15082>        [SMN=  31.15:  SMX=207.66:  SK=  .010]
15083> R0100:C00279-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15084>      CONTINUOUS STANDHYD      1.0 01:TODD_MN3          .12       .025 No_date   28:00   66.78 .754       .000
15085>        [XIMP=  53:  TIMP=  57]
15086>        [LOSS=  2 :  CN=  77.0]
15087>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15088>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=   28.:  MNI=.013:  SCI=    .0]
15089>        [IaREC=  4.00:  IaRECper=    4.00]
15090>        [SMN=  31.15:  SMX=207.66:  SK=  .010]
15091> R0100:C00280-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15092>      CONTINUOUS STANDHYD      1.0 01:TODD_MJ          30.23      5.210 No_date   28:02   68.65 .775       .000
15093>        [XIMP=  52:  TIMP=  64]
15094>        [LOSS=  2 :  CN=  77.0]
15095>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15096>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  449.:  MNI=.013:  SCI=    .0]
15097>        [IaREC=  4.00:  IaRECper=    4.00]
15098>        [SMN=  31.15:  SMX=207.66:  SK=  .010]
15099> R0100:C00281-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15100>      CONTINUOUS STANDHYD      1.0 01:TODD_ALL         112.91     17.286 No_date   28:04   66.60 .752       .000
15101>        [XIMP=  52:  TIMP=  57]
15102>        [LOSS=  2 :  CN=  77.0]
15103>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15104>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  868.:  MNI=.013:  SCI=    .0]
15105>        [IaREC=  4.00:  IaRECper=    4.00]
15106>        [SMN=  31.15:  SMX=207.66:  SK=  .010]
15107> R0100:C00282-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15108>      CONTINUOUS STANDHYD      1.0 01:TODD_P            3.06       .669 No_date   28:00   70.28 .794       .000
15109>        [XIMP=  63:  TIMP=  63]
15110>        [LOSS=  2 :  CN=  77.0]
15111>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15112>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  143.:  MNI=.013:  SCI=    .0]
15113>        [IaREC=  4.00:  IaRECper=    4.00]
15114>        [SMN=  31.15:  SMX=207.66:  SK=  .010]
15115> # 5-Year + 12% Capture
15116> R0100:C00283-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15117>      ROUTE RESERVOIR    ->    1.0 02:TODD_MJ          30.23      5.210 No_date   28:02   68.65  n/a      .000
15118>                           out <=    1.0 02:TODD_MJn         27.54      3.314 No_date   27:54   68.65  n/a      .000
15119>                      overflow <=    1.0 03:TODD_MJj          1.59      1.889 No_date   28:02   68.65  n/a      .000
15120>        [MxStoRed=.1512E-03   m3,  TotOrfVol=.1094E+00   m3,  N-Orf=     1,  TotDurOrf=     0.hrs]
15121> # 5-Year + 12% Capture
15122> R0100:C00284-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15123>      ROUTE RESERVOIR    ->    1.0 02:TODD_MN2          2.10       .428 No_date   28:00   66.78  n/a      .000
15124>                           out <=    1.0 01:TODD_MN2n        1.99       .268 No_date   27:52   66.78  n/a      .000
15125>                      overflow <=    1.0 03:TODD_MNj          .11       .155 No_date   28:00   66.78  n/a      .000
15126>        [MxStoRed=.1204E-03   m3,  TotOrfVol=.7282E-02   m3,  N-Orf=     1,  TotDurOrf=     0.hrs]
15127> R0100:C00285-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15128>      ROUTE RESERVOIR    ->    1.0 02:TODD_MN3          .12       .025 No_date   28:00   66.78  n/a      .000
15129>                           out <=    1.0 01:TODD_MN3n         .11       .016 No_date   27:52   66.78  n/a      .000
15130>                      overflow <=    1.0 03:TODD_MNj          .01       .009 No_date   28:00   66.78  n/a      .000
15131>        [MxStoRed=.9808E-04   m3,  TotOrfVol=.3933E-03   m3,  N-Orf=     1,  TotDurOrf=     0.hrs]
15132> R0100:C00286-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15133>      CONTINUOUS STANDHYD      1.0 01:A2               25.50      3.884 No_date   28:03   62.46 .705       .000
15134>        [XIMP=  42:  TIMP=  52]
15135>        [LOSS=  2 :  CN=  75.0]
15136>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15137>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  566.:  MNI=.013:  SCI=    .0]
15138>        [IaREC=  4.00:  IaRECper=    4.00]
15139>        [SMN=  33.81:  SMX=225.43:  SK=  .010]
15140> R0100:C00287-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15141>      COMPUTE DUALHYD          1.0 01:A2               25.50      3.884 No_date   28:03   62.46  n/a      .000
15142>          Major System   /        1.0 02:A2-MJ             1.43      2.026 No_date   28:04   62.46  n/a      .000
15143>          Minor System   \        1.0 03:A2-MN            24.07      1.818 No_date   27:50   62.71  n/a      .000
15144>          [MjSysSto=.9240E+03, TotOrfVol=.8908E+03,  N-Orf=     1, TotDurOrf=     0.hrs]
15145> R0100:C00288-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15146>      ADD HYD                  1.0 02:TODD_MN2n         1.99       .268 No_date   27:52   66.78  n/a      .000
15147>                         +     1.0 02:TODD_MN3n         .11       .016 No_date   27:52   66.78  n/a      .000
15148>                         +     1.0 02:TODD_Mj           1.59      1.889 No_date   28:02   68.65  n/a      .000
15149>                         +     1.0 02:TODD_P            3.06       .669 No_date   28:00   70.28  n/a      .000
15150>                         +     1.0 02:TODD_ALL        112.91     17.286 No_date   28:04   66.60  n/a      .000
15151>                         +     1.0 02:W_CLAR_Mn         1.69       .213 No_date   27:52   66.22  n/a      .000
15152>                         SUM=  1.0 01:TODD          121.35     20.000 No_date   28:03   66.72  n/a      .000
15153> R0100:C00289-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15154>      SAVE HYD                 1.0 01:TODD          121.35     20.000 No_date   28:03   66.72  n/a      .000
15155>        fname :TODD.0100
15156>        remark:Total Flows at Todd Drain
15157> #*******************************************************************************
15158> #     Todd Pond 3
15159> #     - Rating curve obtained from Barrhaven South MSS modeling
15160> #     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
15161> #*******************************************************************************
15162> R0100:C00290-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15163>      ROUTE RESERVOIR    ->    1.0 02:TODD          121.35     20.000 No_date   28:03   66.72  n/a      .000
15164>                           out <=    1.0 01:MS_P3         121.35     15.844 No_date   28:09   66.71  n/a      .000
15165>                      overflow <=    1.0 03:P3-OWF            .00       .000 No_date    0:00     .00  n/a      .000
15166>        [MxStoRed=.2834E+01   m3,  TotOrfVol=.0000E+00   m3,  N-Orf=     0,  TotDurOrf=     0.hrs]
15167> R0100:C00291-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15168>      ADD HYD                  1.0 02:GreenB          54717.82   144.531 No_date   36:30   39.32  n/a      .000
15169>                         +     1.0 02:MS_P3         121.35     15.844 No_date   28:09   66.71  n/a      .000
15170>                         +     1.0 02:P3-OWF            .00       .000 No_date    0:00     .00  n/a      .000
15171>                         +     1.0 02:TODD_MN2j         .11       .155 No_date   28:00   66.78  n/a      .000
15172>                         +     1.0 02:A2-MJ            1.43      2.026 No_date   28:04   62.46  n/a      .000
15173>                         SUM=  1.0 01:SN_TO         54840.70   144.934 No_date   36:28   39.38  n/a      .000
15174> R0100:C00292-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15175>      SAVE HYD                 1.0 01:SN_TO         54840.70   144.934 No_date   36:28   39.38  n/a      .000
15176>        fname :SN_TO.0100
15177>        remark:Total Flows at Todd Drain
15178> #
15179> # Hydrograph from Todd Drain routed to Corrigan Drain
15180> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
15181> # 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so the model will be more stable and g
15182> R0100:C00293-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15183>      ROUTE CHANNEL      ->    1.0 02:SN_TO         54840.70   144.934 No_date   36:28   39.38  n/a      .000
15184> *    [RDT=  1.00]  out <-    1.0 01:N_TO          54840.70   144.824 No_date   36:39   39.38  n/a      .000
15185>        [LJS/n=  280./  .050/  .045]
15186>        [Vmx=   881:  Dmax=  3.680]
15187> R0100:C00294-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15188>      SAVE HYD                 1.0 01:N_TO          54840.70   144.824 No_date   36:39   39.38  n/a      .000
15189>        fname :N_TO.0100
15190>        remark:Total inflows at Station 2462
15191> #*******************************************************************************
15192> #     Catchment CORRIG
15193> #     - To Corrigan Drain (south of the Jock)
15194> #     - Primarily Developed (medium density)
15195> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
15196> #*******************************************************************************
15197> R0100:C00295-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15198>      CONTINUOUS STANDHYD      1.0 01:corr1            15.87      3.185 No_date   28:01   70.28 .794       .000
15199>        [XIMP=  63:  TIMP=  63]
15200>        [LOSS=  2 :  CN=  77.0]
15201>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15202>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  325.:  MNI=.013:  SCI=    .0]
15203>        [IaREC=  4.00:  IaRECper=    4.00]
15204>        [SMN=  31.15:  SMX=207.66:  SK=  .010]
15205> R0100:C00296-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15206>      COMPUTE DUALHYD          1.0 01:corr1            15.87      3.185 No_date   28:01   70.28  n/a      .000
15207>          Major System   /        1.0 02:corr1-MJ          .00       .000 No_date    0:00     .00  n/a      .000
15208>          Minor System   \        1.0 03:corr1-MN         15.87      1.818 No_date   28:25   70.70  n/a      .000
15209>          [MjSysSto=.7879E+03, TotOrfVol=.0000E+00, N-Orf=     0, TotDurOrf=     0.hrs]
15210> R0100:C00297-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15211>      CONTINUOUS NASHYD        1.0 01:corr2            12.47       .388 No_date   29:10   45.95 .519       .000
15212>        [CN=  77.0:  N=  3.00:  Tp=    1.10]
15213>        [IaREC=  4.00:  SMN=  31.15:  SMX=207.66:  SK=  .010]
15214>        [InterEventTime=  12.00]
15215> R0100:C00298-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15216>      CONTINUOUS STANDHYD      1.0 01:A1-Corrig        15.75      2.624 No_date   28:01   62.46 .705       .000
15217>        [XIMP=  42:  TIMP=  52]
15218>        [LOSS=  2 :  CN=  75.0]
15219>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15220>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  324.:  MNI=.013:  SCI=    .0]
15221>        [IaREC=  4.00:  IaRECper=    4.00]
15222>        [SMN=  33.81:  SMX=225.43:  SK=  .010]
15223> R0100:C00299-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15224>      COMPUTE DUALHYD          1.0 01:A1-Corrig        15.75      2.624 No_date   28:01   62.46  n/a      .000
15225>          Major System   /        1.0 02:A1-MJ             .00       .000 No_date    0:00     .00  n/a      .000
15226>          Minor System   \        1.0 03:A1-MN            15.75      1.818 No_date   27:55   62.48  n/a      .000
15227>          [MjSysSto=.3859E+03, TotOrfVol=.0000E+00, N-Orf=     0, TotDurOrf=     0.hrs]
15228> R0100:C00300-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15229>      CONTINUOUS NASHYD        1.0 01:B1               2.77       .143 No_date   28:09   29.03 .328       .000
15230>        [CN=  56.0:  N=  3.00:  Tp=    .23]
15231>        [IaREC=  4.00:  SMN=  79.69:  SMX=531.24:  SK=  .010]
15232>        [InterEventTime=  12.00]
15233> R0100:C00301-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15234>      CONTINUOUS STANDHYD      1.0 01:A4               1.27       .266 No_date   28:00   70.58 .797       .000
15235>        [XIMP=  65:  TIMP=  65]
15236>        [LOSS=  2 :  CN=  75.0]
15237>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15238>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  253.:  MNI=.013:  SCI=    .0]
15239>        [IaREC=  4.00:  IaRECper=    4.00]
15240>        [SMN=  33.81:  SMX=225.43:  SK=  .010]
15241> R0100:C00302-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15242>      COMPUTE DUALHYD          1.0 01:A4               1.27       .266 No_date   28:00   70.58  n/a      .000
15243>          Major System   /        1.0 02:A4-MJ             .00       .000 No_date    0:00     .00  n/a      .000
15244>          Minor System   \        1.0 03:A4-MN            1.27       .266 No_date   28:00   70.58  n/a      .000
15245>          [MjSysSto=.0000E+00, TotOrfVol=.0000E+00, N-Orf=     0, TotDurOrf=     0.hrs]
15246> R0100:C00303-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15247>      ADD HYD                  1.0 02:A1-MI             .00       .000 No_date    0:00     .00  n/a      .000
15248>                         +     1.0 02:A1-MN            15.75      1.818 No_date   27:55   62.48  n/a      .000
15249>                         +     1.0 02:corr1-MI          .00       .000 No_date    0:00     .00  n/a      .000
15250>                         +     1.0 02:corr1-MN         15.87      1.818 No_date   28:25   70.70  n/a      .000
15251>                         +     1.0 02:corr2            12.47       .388 No_date   29:10   45.95  n/a      .000
15252>                         +     1.0 02:B1                2.77       .143 No_date   28:09   29.03  n/a      .000
15253>                         +     1.0 02:A4-MN             1.27       .266 No_date   28:00   70.58  n/a      .000
15254>                         SUM=  1.0 01:MH01            48.13      4.085 No_date   28:02   59.20  n/a      .000
15255> R0100:C00304-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15256>      SAVE HYD                 1.0 01:MH01            48.13      4.085 No_date   28:02   59.20  n/a      .000
15257>        fname :MH01.0100
15258>        remark:Total Flows at MH01
15259> R0100:C00305-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15260>      ROUTE PIPE         ->    1.0 02:MH01            48.13      4.085 No_date   28:02   59.20  n/a      .000
15261> *    [RDT=  1.00]  out <-    1.0 01:101-102         48.13      4.065 No_date   28:03   59.20  n/a      .000
15262>        [LJS/n=  368./  .540/  .013]
15263>        [Vmx=  3.154:  Dmax=  1.125]
15264>        [Di=n=  1.05:  Dused=  1.37]
15265> R0100:C00306-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15266>      ADD HYD                  1.0 02:A2-MN            24.07      1.818 No_date   27:50   62.71  n/a      .000
15267>                         +     1.0 02:101-102          48.13      4.065 No_date   28:03   59.20  n/a      .000
15268>                         SUM=  1.0 01:MH02             72.20      5.883 No_date   28:03   60.37  n/a      .000
15269> R0100:C00307-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15270>      SAVE HYD                 1.0 01:MH02            72.20      5.883 No_date   28:03   60.37  n/a      .000
15271>        fname :MH02.0100
15272>        remark:Total Flows at MH02
15273> R0100:C00308-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15274>      CONTINUOUS STANDHYD      1.0 01:A5               1.60       .346 No_date   28:01   73.40 .829       .000
15275>        [XIMP=  71:  TIMP=  71]
15276>        [LOSS=  2 :  CN=  75.0]
15277>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15278>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  300.:  MNI=.013:  SCI=    .0]
15279>        [IaREC=  4.00:  IaRECper=    4.00]
15280>        [SMN=  33.81:  SMX=225.43:  SK=  .010]
15281> R0100:C00309-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15282>      ADD HYD                  1.0 02:A4-MI             .00       .000 No_date    0:00     .00  n/a      .000
15283>                         +     1.0 02:A5               1.60       .346 No_date   28:01   73.40  n/a      .000
15284>                         SUM=  1.0 01:A5T              1.60       .346 No_date   28:01   73.40  n/a      .000
15285> R0100:C00310-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15286>      COMPUTE DUALHYD          1.0 01:A5T              1.60       .346 No_date   28:01   73.40  n/a      .000
15287>          Major System   /        1.0 02:A5-MJ             .00       .000 No_date    0:00     .00  n/a      .000
15288>          Minor System   \        1.0 03:A5-MN            1.60       .346 No_date   28:01   73.40  n/a      .000
15289>          [MjSysSto=.0000E+00, TotOrfVol=.0000E+00, N-Orf=     0, TotDurOrf=     0.hrs]
15290> R0100:C00311-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15291>      ROUTE PIPE         ->    1.0 02:MH02            72.20      5.883 No_date   28:03   60.37  n/a      .000
15292> *    [RDT=  1.00]  out <-    1.0 01:102-103         72.20      5.831 No_date   28:12   60.37  n/a      .000
15293>        [LJS/n=  504./  .280/  .013]
15294>        [Vmx=  2.701:  Dmax=  1.459]
15295>        [Di=n=  1.50:  Dused=  1.78]
15296> R0100:C00312-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15297>      ADD HYD                  1.0 02:102-103          72.20      5.831 No_date   28:12   60.37  n/a      .000
15298>                         +     1.0 02:A5-MN             1.60       .346 No_date   28:01   73.40  n/a      .000
15299>                         SUM=  1.0 01:MH03             73.80      6.079 No_date   28:04   60.65  n/a      .000
15300> R0100:C00313-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15301>      SAVE HYD                 1.0 01:MH03            73.80      6.079 No_date   28:04   60.65  n/a      .000
15302>        fname :MH03.0100
15303>        remark:Total Flows at MH03
15304> R0100:C00314-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15305>      ROUTE PIPE         ->    1.0 02:MH03            73.80      6.079 No_date   28:04   60.65  n/a      .000
15306>        [RDT=  1.00]  out <-    1.0 01:103-104         73.80      6.014 No_date   28:05   60.65  n/a      .000
15307>        [LJS/n=  438./  .460/  .013]
15308>        [Vmx=  3.295:  Dmax=  1.330]
15309>        [Di=n=  1.65:  Dused=  1.65]
15310> R0100:C00315-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15311>      CONTINUOUS STANDHYD      1.0 01:A6               1.56       .339 No_date   28:00   73.40 .829       .000
15312>        [XIMP=  71:  TIMP=  71]
15313>        [LOSS=  2 :  CN=  75.0]
15314>        [Pervious      area:  IAper=  4.67:  SLPP=1.00:  LGP=   40.:  MNP=.250:  SCP=    .0]
15315>        [Impervious    area:  IAimp=  1.57:  SLPI=1.00:  LGI=  280.:  MNI=.013:  SCI=    .0]
15316>        [IaREC=  4.00:  IaRECper=    4.00]
15317>        [SMN=  33.81:  SMX=225.43:  SK=  .010]
15318> R0100:C00316-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
15319>      ADD HYD                  1.0 02:A5-MI             .00       .000 No_date    0:00     .00  n/a      .000
15320>                         +     1.0 02:A6               1.56       .339 No_date   28:00   
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15335>          remark: Total Flows at MH104
15336> R0100: C00320-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15337>          CONTINUOUS STANDHYD    1. 0 01: B2              12. 31      2. 012 No_date    28: 02    62. 88  . 710      . 000
15338>           [ XI M=. 41: TI M=. 54]
15339>           [ LOSS= 2 : CN= 75. 0]
15340>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15341>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 417. : MNI=. 013: SCI=    . 0]
15342>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15343>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15344> R0100: C00321-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15345>          COMPUTE DUALHYD        1. 0 01: B2              12. 31      2. 012 No_date    28: 02    62. 88  n/ a      . 000
15346>           Major System   /      1. 0 02: B2- MI           . 36       . 820 No_date    28: 05    62. 88  n/ a      . 000
15347>           Minor System   \      1. 0 03: B2- MN           11. 95     1. 029 No_date    27: 51    62. 91  n/ a      . 000
15348>           [ MJ Sys To=. 5080E+03,  Tot Or f Vol =. 2245E+03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
15349> R0100: C00322-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15350>          ROUTE PIPE             - >               1. 0 02: B2- MN           11. 95     1. 029 No_date    27: 51    62. 91  n/ a      . 000
15351> *        [ RDT= 1. 00]  out <-                    1. 0 01: 315- 333         11. 95     1. 029 No_date    28: 35    62. 91  n/ a      . 000
15352>           [ L/ S/ n=  254. /  . 100/ . 013]
15353>           [ Vmax= 1. 220: Dmax=  . 838]
15354>           [ Di n= 1. 20: Used=  1. 20]
15355> R0100: C00323-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15356>          CONTINUOUS STANDHYD    1. 0 01: B3              5. 59       . 930 No_date    28: 01    62. 88  . 710      . 000
15357>           [ XI M=. 41: TI M=. 54]
15358>           [ LOSS= 2 : CN= 75. 0]
15359>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15360>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 345. : MNI=. 013: SCI=    . 0]
15361>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15362>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15363> R0100: C00324-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15364>          COMPUTE DUALHYD        1. 0 01: B3              5. 59       . 930 No_date    28: 01    62. 88  n/ a      . 000
15365>           Major System   /      1. 0 02: B3- MI           . 19       . 402 No_date    28: 04    62. 88  n/ a      . 000
15366>           Minor System   \      1. 0 03: B3- MN           5. 40      . 459 No_date    27: 50    63. 05  n/ a      . 000
15367>           [ MJ Sys To=. 2270E+03,  Tot Or f Vol =. 1217E+03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
15368> R0100: C00325-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15369>          ADD HYD                1. 0 02: B3- MN           5. 40      . 459 No_date    27: 50    63. 05  n/ a      . 000
15370>                           +     1. 0 02: 315- 333         11. 95     1. 029 No_date    28: 35    62. 91  n/ a      . 000
15371>                         SUM=    1. 0 01: MH333           17. 35     1. 488 No_date    28: 35    62. 96  n/ a      . 000
15372> R0100: C00326-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15373>          SAVE HYD               1. 0 01: MH333           17. 35     1. 488 No_date    28: 35    62. 96  n/ a      . 000
15374>           fname: MH333. 0100
15375>           remark: Total Flows at MH333
15376> R0100: C00327-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15377>          ROUTE PIPE             - >               1. 0 02: MH333           17. 35     1. 488 No_date    28: 35    62. 96  n/ a      . 000
15378> *        [ RDT= 1. 00]  out <-                    1. 0 01: 333- 335         17. 35     1. 489 No_date    28: 27    62. 96  n/ a      . 000
15379>           [ L/ S/ n=  251. /  . 100/ . 013]
15380>           [ Vmax= 1. 302: Dmax=  1. 057]
15381>           [ Di n= 1. 20: Used=  1. 29]
15382> R0100: C00328-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15383>          ROUTE PIPE             - >               1. 0 02: 333- 335         17. 35     1. 489 No_date    28: 27    62. 96  n/ a      . 000
15384> *        [ RDT= 1. 00]  out <-                    1. 0 01: 335- 338         17. 35     1. 481 No_date    28: 35    62. 96  n/ a      . 000
15385>           [ L/ S/ n=  185. /  . 100/ . 013]
15386>           [ Vmax= 1. 302: Dmax=  1. 057]
15387>           [ Di n= 1. 20: Used=  1. 29]
15388> R0100: C00329-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15389>          ROUTE PIPE             - >               1. 0 02: 335- 338         17. 35     1. 481 No_date    28: 35    62. 96  n/ a      . 000
15390>          [ RDT= 1. 00]  out <-                    1. 0 01: 338- 340         17. 35     1. 480 No_date    28: 35    62. 96  n/ a      . 000
15391>           [ L/ S/ n=  233. /  . 100/ . 013]
15392>           [ Vmax= 1. 330: Dmax=  . 981]
15393>           [ Di n= 1. 35: Used=  1. 35]
15394> R0100: C00330-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15395>          CONTINUOUS STANDHYD    1. 0 01: B4              7. 60       1. 252 No_date    28: 02    62. 88  . 710      . 000
15396>           [ XI M=. 41: TI M=. 54]
15397>           [ LOSS= 2 : CN= 75. 0]
15398>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15399>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 388. : MNI=. 013: SCI=    . 0]
15400>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15401>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15402> R0100: C00331-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15403>          COMPUTE DUALHYD        1. 0 01: B4              7. 60       1. 252 No_date    28: 02    62. 88  n/ a      . 000
15404>           Major System   /      1. 0 02: B4- MI           . 17       . 411 No_date    28: 06    62. 88  n/ a      . 000
15405>           Minor System   \      1. 0 03: B4- MN           7. 43      . 655 No_date    27: 51    62. 90  n/ a      . 000
15406>           [ MJ Sys To=. 3230E+03,  Tot Or f Vol =. 1079E+03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
15407> R0100: C00332-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15408>          ADD HYD                1. 0 02: 338- 340         17. 35     1. 480 No_date    28: 35    62. 96  n/ a      . 000
15409>                           +     1. 0 02: B4- MN           7. 43      . 655 No_date    27: 51    62. 90  n/ a      . 000
15410>                         SUM=    1. 0 01: MH340           24. 78     2. 126 No_date    28: 34    62. 94  n/ a      . 000
15411> R0100: C00333-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15412>          SAVE HYD               1. 0 01: MH340           24. 78     2. 126 No_date    28: 34    62. 94  n/ a      . 000
15413>           fname: MH340. 0100
15414>           remark: Total Flows at MH340
15415> R0100: C00334-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15416>          ROUTE PIPE             - >               1. 0 02: MH340           24. 78     2. 126 No_date    28: 34    62. 94  n/ a      . 000
15417>          [ RDT= 1. 00]  out <-                    1. 0 01: 340- 104         24. 78     2. 116 No_date    28: 21    62. 94  n/ a      . 000
15418>           [ L/ S/ n=  240. /  . 150/ . 013]
15419>           [ Vmax= 1. 726: Dmax=  . 923]
15420>           [ Di n= 1. 65: Used=  1. 65]
15421> R0100: C00335-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15422>          ADD HYD                1. 0 02: 340- 104         24. 78     2. 116 No_date    28: 21    62. 94  n/ a      . 000
15423>                           +     1. 0 02: MH104           104. 00    9. 601 No_date    28: 03    63. 04  n/ a      . 000
15424>                         SUM=    1. 0 01: MH104           128. 78    11. 560 No_date   28: 04    63. 02  n/ a      . 000
15425> R0100: C00336-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15426>          ROUTE PIPE             - >               1. 0 02: MH104           128. 78    11. 560 No_date   28: 04    63. 02  n/ a      . 000
15427> *        [ RDT= 1. 00]  out <-                    1. 0 01: 104- 105         128. 78    11. 359 No_date   28: 10    63. 02  n/ a      . 000
15428>           [ L/ S/ n=  380. /  . 100/ . 013]
15429>           [ Vmax= 2. 115: Dmax=  2. 014]
15430>           [ HGHT= 2. 37: WDTH=  2. 71]
15431> R0100: C00337-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15432>          CONTINUOUS STANDHYD    1. 0 01: B5              2. 20       . 437 No_date    28: 00    66. 83  . 755      . 000
15433>           [ XI M=. 57: TI M=. 57]
15434>           [ LOSS= 2 : CN= 75. 0]
15435>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15436>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 187. : MNI=. 013: SCI=    . 0]
15437>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15438>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15439> R0100: C00338-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15440>          COMPUTE DUALHYD        1. 0 01: B5              2. 20       . 437 No_date    28: 00    66. 83  n/ a      . 000
15441>           Major System   /      1. 0 02: B5- MI           . 00       . 000 No_date    0: 00     0. 00   n/ a      . 000
15442>           Minor System   \      1. 0 03: B5- MN           2. 20      . 260 No_date    27: 51    66. 87  n/ a      . 000
15443>           [ MJ Sys To=. 9053E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
15444> R0100: C00339-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15445>          CONTINUOUS STANDHYD    1. 0 01: A8              . 96        . 219 No_date    28: 00    73. 40  . 829      . 000
15446>           [ XI M=. 71: TI M=. 71]
15447>           [ LOSS= 2 : CN= 75. 0]
15448>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15449>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 186. : MNI=. 013: SCI=    . 0]
15450>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15451>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15452> R0100: C00340-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15453>          ADD HYD                1. 0 02: A6- MI           . 00        . 000 No_date    0: 00     0. 00   n/ a      . 000
15454>                           +     1. 0 02: A8              . 96        . 219 No_date    28: 00    73. 40  n/ a      . 000
15455>                         SUM=    1. 0 01: A8T             . 96        . 219 No_date    28: 00    73. 40  n/ a      . 000
15456> R0100: C00341-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15457>          COMPUTE DUALHYD        1. 0 01: A8T             . 96        . 219 No_date    28: 00    73. 40  n/ a      . 000
15458>           Major System   /      1. 0 02: A8- MI           . 00        . 000 No_date    0: 00     0. 00   n/ a      . 000
15459>           Minor System   \      1. 0 03: A8- MN           . 96        . 219 No_date    28: 00    73. 40  n/ a      . 000
15460>           [ MJ Sys To=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
15461> R0100: C00342-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15462>          ADD HYD                1. 0 02: 104- 105         128. 78    11. 359 No_date   28: 10    63. 02  n/ a      . 000
15463>                           +     1. 0 02: B5- MN           2. 20      . 260 No_date    27: 51    66. 87  n/ a      . 000
15464>                           +     1. 0 02: A8- MN           . 96       . 219 No_date    28: 00    73. 40  n/ a      . 000
15465>                           +     1. 0 02: TODD_MN j        . 01       . 009 No_date    28: 00    66. 78  n/ a      . 000
15466>                         SUM=    1. 0 01: MH105           131. 94    11. 688 No_date   28: 10    63. 16  n/ a      . 000
15467> R0100: C00343-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15468>          SAVE HYD               1. 0 01: MH105           131. 94    11. 688 No_date   28: 10    63. 16  n/ a      . 000
15469>           fname: MH105. 0100
15470>           remark: Total Flows at MH105
15471> R0100: C00344-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15472> *      DIVERT HYD             - >               1. 0 01: A8- MI           . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15473>           diverted <=           1. 0 02: A8- MI- JR       . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15474>           diverted >=           1. 0 02: A8- MI- B6       . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15475> R0100: C00345-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15476>          DIVERT HYD             - >               1. 0 01: MH105           131. 94    11. 688 No_date   28: 10    63. 16  n/ a      . 000
15477>           diverted <=           1. 0 02: MH105- JR        36. 57      8. 679 No_date    28: 10    63. 16  n/ a      . 000
15478>           diverted >=           1. 0 03: MH105- B6        95. 37      3. 009 No_date    28: 10    63. 16  n/ a      . 000
15479> R0100: C00346-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15480>          CONTINUOUS STANDHYD    1. 0 01: B7              7. 19       1. 283 No_date    28: 01    62. 88  . 710      . 000
15481>           [ XI M=. 41: TI M=. 54]
15482>           [ LOSS= 2 : CN= 75. 0]
15483>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15484>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 211. : MNI=. 013: SCI=    . 0]
15485>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15486>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15487> R0100: C00347-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15488>          ADD HYD                1. 0 02: B4- MI           . 17        . 411 No_date    28: 06    62. 88  n/ a      . 000
15489>                           +     1. 0 02: B7              7. 19       1. 283 No_date    28: 01    62. 88  n/ a      . 000
15490>                         SUM=    1. 0 01: B7- B4MI        7. 36       1. 300 No_date    28: 06    62. 88  n/ a      . 000
15491> R0100: C00348-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15492>          COMPUTE DUALHYD        1. 0 01: B7- B4MI        7. 36       1. 300 No_date    28: 06    62. 88  n/ a      . 000
15493>           Major System   /      1. 0 02: B7R- MI          . 36       . 671 No_date    28: 06    62. 88  n/ a      . 000
15494>           Minor System   \      1. 0 03: B7R- MN          7. 00      . 629 No_date    28: 31    62. 97  n/ a      . 000
15495>           [ MJ Sys To=. 3110E+03,  Tot Or f Vol =. 2280E+03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
15496> R0100: C00349-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15497>          ROUTE PIPE             - >               1. 0 02: B7R- MN          7. 00      . 629 No_date    28: 31    62. 97  n/ a      . 000
15498> *        [ RDT= 1. 00]  out <-                    1. 0 01: 360- 106A        7. 00      . 629 No_date    28: 31    62. 97  n/ a      . 000
15499>           [ L/ S/ n=  167. /  . 100/ . 013]
15500>           [ Vmax= 1. 089: Dmax=  . 665]
15501>           [ Di n= 1. 05: Used=  1. 05]
15502> R0100: C00350-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15503>          CONTINUOUS STANDHYD    1. 0 01: B6              3. 29       . 602 No_date    28: 00    62. 88  . 710      . 000
15504>           [ XI M=. 41: TI M=. 54]
15505>           [ LOSS= 2 : CN= 75. 0]
15506>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15507>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 148. : MNI=. 013: SCI=    . 0]
15508>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15509>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15510> R0100: C00351-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15511>          COMPUTE DUALHYD        1. 0 01: B6              3. 29       . 602 No_date    28: 00    62. 88  n/ a      . 000
15512>           Major System   /      1. 0 02: B6- MI           . 00        . 000 No_date    0: 00     0. 00   n/ a      . 000
15513>           Minor System   \      1. 0 03: B6- MN           3. 29      . 064 No_date    27: 33    62. 92  n/ a      . 000
15514>           [ MJ Sys To=. 7353E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
15515> R0100: C00352-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15516>          CONTINUOUS STANDHYD    1. 0 01: EX- LAND        32. 50      5. 231 No_date    28: 02    62. 70  . 708      . 000
15517>           [ XI M=. 50: TI M=. 50]
15518>           [ LOSS= 2 : CN= 74. 0]
15519>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15520>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 465. : MNI=. 013: SCI=    . 0]
15521>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15522>           [ SMN= 36. 67:  SMX=244. 49:  SK=  . 010]
15523> R0100: C00353-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15524>          COMPUTE DUALHYD        1. 0 01: EX- LAND        32. 50      5. 231 No_date    28: 02    62. 70  n/ a      . 000
15525>           Major System   /      1. 0 02: EX- LAND- MI     1. 77      2. 874 No_date    28: 03    62. 70  n/ a      . 000
15526>           Minor System   \      1. 0 03: EX- LAND- MN     30. 73     2. 275 No_date    27: 48    62. 82  n/ a      . 000
15527>           [ MJ Sys To=. 1365E+04,  Tot Or f Vol =. 1111E+04,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
15528> R0100: C00354-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15529>          ADD HYD                1. 0 02: B7R- MI          . 36        . 671 No_date    28: 06    62. 88  n/ a      . 000
15530>                           +     1. 0 02: EX- LAND- MI     1. 77      2. 874 No_date    28: 03    62. 70  n/ a      . 000
15531>                           +     1. 0 02: B5- MI           . 00        . 000 No_date    0: 00     0. 00   n/ a      . 000
15532>                           +     1. 0 02: B6- MI           . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15533>                           +     1. 0 02: B6- MN           3. 29      . 064 No_date    27: 33    62. 92  n/ a      . 000
15534>                           +     1. 0 02: A8- MI- B6       . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15535>                         SUM=    1. 0 01: B6- B7ExMI       5. 42      3. 483 No_date    28: 03    62. 85  n/ a      . 000
15536> R0100: C00355-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15537>          COMPUTE DUALHYD        1. 0 01: B6- B7ExMI       5. 42      3. 483 No_date    28: 03    62. 85  n/ a      . 000
15538>           Major System   /      1. 0 02: B6R- MI          . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15539>           Minor System   \      1. 0 03: B6R- MN          5. 42      . 064 No_date    27: 33    62. 85  n/ a      . 000
15540>           [ MJ Sys To=. 1339E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
15541> R0100: C00356-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15542>          ROUTE PIPE             - >               1. 0 02: MH105- B6        95. 37      3. 009 No_date    28: 10    63. 16  n/ a      . 000
15543>          [ RDT= 1. 00]  out <-                    1. 0 01: 105- 106A        95. 37      3. 009 No_date    28: 04    63. 16  n/ a      . 000
15544>           [ L/ S/ n=  208. /  . 100/ . 013]
15545>           [ Vmax= 1. 597: Dmax=  1. 249]
15546>           [ Di n= 1. 80: Used=  1. 80]
15547> R0100: C00357-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15548>          ADD HYD                1. 0 02: 360- 106A        7. 00       . 629 No_date    28: 31    62. 97  n/ a      . 000
15549>                           +     1. 0 02: 105- 106A        95. 37      3. 009 No_date    28: 04    63. 16  n/ a      . 000
15550>                           +     1. 0 02: B6R- MN          5. 42      . 064 No_date    27: 33    62. 85  n/ a      . 000
15551>                           +     1. 0 02: B6R- MI          . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15552>                         SUM=    1. 0 01: MH106A          107. 80     3. 702 No_date    28: 10    63. 13  n/ a      . 000
15553> R0100: C00358-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15554>          SAVE HYD               1. 0 01: MH106A          107. 80     3. 702 No_date    28: 10    63. 13  n/ a      . 000
15555>           fname: MH106A. 0100
15556>           remark: Total Flows at MH106A
15557> R0100: C00359-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15558>          ROUTE PIPE             - >               1. 0 02: MH106A          107. 80     3. 702 No_date    28: 10    63. 13  n/ a      . 000
15559> *        [ RDT= 1. 00]  out <-                    1. 0 01: 106A- 106        107. 80     3. 757 No_date    28: 13    63. 13  n/ a      . 000
15560>           [ L/ S/ n=  190. /  . 100/ . 013]
15561>           [ Vmax= 1. 635: Dmax=  1. 487]
15562>           [ Di n= 1. 80: Used=  1. 81]
15563> R0100: C00360-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15564>          CONTINUOUS STANDHYD    1. 0 01: A9              2. 44       . 539 No_date    28: 00    73. 40  . 829      . 000
15565>           [ XI M=. 71: TI M=. 71]
15566>           [ LOSS= 2 : CN= 75. 0]
15567>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15568>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 262. : MNI=. 013: SCI=    . 0]
15569>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15570>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15571> R0100: C00361-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15572>          COMPUTE DUALHYD        1. 0 01: A9              2. 44       . 539 No_date    28: 00    73. 40  n/ a      . 000
15573>           Major System   /      1. 0 02: A9- MI           . 00        . 000 No_date    0: 00     . 00    n/ a      . 000
15574>           Minor System   \      1. 0 03: A9- MN           2. 44      . 539 No_date    28: 00    73. 40  n/ a      . 000
15575> R0100: C00362-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15576>          ADD HYD                1. 0 02: 106A- 106        107. 80     3. 757 No_date    28: 13    63. 13  n/ a      . 000
15577>                           +     1. 0 02: A9- MN           2. 44      . 539 No_date    28: 00    73. 40  n/ a      . 000
15578>                         SUM=    1. 0 01: MH106           110. 24     4. 227 No_date    28: 00    63. 36  n/ a      . 000
15579> R0100: C00363-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15580>          SAVE HYD               1. 0 01: MH106           110. 24     4. 227 No_date    28: 00    63. 36  n/ a      . 000
15581>           fname: MH106. 0100
15582>           remark: Total Flows at MH106
15583> R0100: C00364-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15584>          ROUTE PIPE             - >               1. 0 02: MH106           110. 24     4. 227 No_date    28: 00    63. 36  n/ a      . 000
15585> *        [ RDT= 1. 00]  out <-                    1. 0 01: 106- 107         110. 24     4. 179 No_date    28: 02    63. 36  n/ a      . 000
15586>           [ L/ S/ n=  123. /  . 100/ . 013]
15587>           [ Vmax= 1. 690: Dmax=  1. 561]
15588>           [ Di n= 1. 80: Used=  1. 90]
15589> R0100: C00365-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15590>          CONTINUOUS STANDHYD    1. 0 01: A10             4. 14       . 693 No_date    28: 01    59. 73  . 674      . 000
15591>           [ XI M=. 35: TI M=. 47]
15592>           [ LOSS= 2 : CN= 75. 0]
15593>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15594>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    . 0]
15595>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15596>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15597> R0100: C00366-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15598>          COMPUTE DUALHYD        1. 0 01: A10             4. 14       . 693 No_date    28: 01    59. 73  n/ a      . 000
15599>           Major System   /      1. 0 02: A10- MI          . 09        . 218 No_date    28: 05    59. 73  n/ a      . 000
15600>           Minor System   \      1. 0 03: A10- MN          4. 05      . 310 No_date    27: 48    60. 02  n/ a      . 000
15601>           [ MJ Sys To=. 2280E+03,  Tot Or f Vol =. 5334E+02,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
15602> R0100: C00367-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15603>          CONTINUOUS STANDHYD    1. 0 01: A11             10. 61      1. 941 No_date    28: 01    67. 38  . 761      . 000
15604>           [ XI M=. 53: TI M=. 62]
15605>           [ LOSS= 2 : CN= 75. 0]
15606>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15607>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 379. : MNI=. 013: SCI=    . 0]
15608>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15609>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15610> R0100: C00368-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15611>          COMPUTE DUALHYD        1. 0 01: A11             10. 61      1. 941 No_date    28: 01    67. 38  n/ a      . 000
15612>           Major System   /      1. 0 02: A11- MI          . 16        . 564 No_date    28: 06    67. 38  n/ a      . 000
15613>           Minor System   \      1. 0 03: A11- MN          10. 45     . 993 No_date    28: 34    67. 69  n/ a      . 000
15614>           [ MJ Sys To=. 5560E+03,  Tot Or f Vol =. 1090E+03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
15615> R0100: C00369-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15616>          ADD HYD                1. 0 02: 106- 107         110. 24     4. 179 No_date    28: 02    63. 36  n/ a      . 000
15617>                           +     1. 0 02: A10- MN          4. 05      . 310 No_date    27: 48    60. 02  n/ a      . 000
15618>                           +     1. 0 02: A11- MN          10. 45     . 993 No_date    28: 34    67. 69  n/ a      . 000
15619>                         SUM=    1. 0 01: MH107           124. 74     5. 482 No_date    28: 02    63. 62  n/ a      . 000
15620> R0100: C00370-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15621>          SAVE HYD               1. 0 01: MH107           124. 74     5. 482 No_date    28: 02    63. 62  n/ a      . 000
15622>           fname: MH107. 0100
15623>           remark: Total Flows at MH107
15624> R0100: C00371-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15625>          ROUTE PIPE             - >               1. 0 02: MH107           124. 74     5. 482 No_date    28: 02    63. 62  n/ a      . 000
15626> *        [ RDT= 1. 00]  out <-                    1. 0 01: 107- 119         124. 74     5. 468 No_date    28: 04    63. 62  n/ a      . 000
15627>           [ L/ S/ n=  114. /  . 120/ . 013]
15628>           [ Vmax= 1. 932: Dmax=  1. 665]
15629>           [ Di n= 1. 80: Used=  2. 03]
15630> R0100: C00372-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15631>          ROUTE PIPE             - >               1. 0 02: 107- 119         124. 74     5. 468 No_date    28: 04    63. 62  n/ a      . 000
15632> *        [ RDT= 1. 00]  out <-                    1. 0 01: 119- 108         124. 74     5. 480 No_date    28: 05    63. 62  n/ a      . 000
15633>           [ L/ S/ n=  66. /  . 120/ . 013]
15634>           [ Vmax= 1. 930: Dmax=  1. 664]
15635>           [ Di n= 1. 80: Used=  2. 03]
15636> R0100: C00373-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15637>          CONTINUOUS STANDHYD    1. 0 01: A12             12. 29      2. 213 No_date    28: 01    62. 88  . 710      . 000
15638>           [ XI M=. 41: TI M=. 54]
15639>           [ LOSS= 2 : CN= 75. 0]
15640>           [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15641>           [ Impervious     area: I Aimp= 1. 57: SLPI=1. 00: LGI= 183. : MNI=. 013: SCI=    . 0]
15642>           [ IaRECI mp=    4. 00: IaRECper=    4. 00]
15643>           [ SMN= 33. 81:  SMX=225. 43:  SK=  . 010]
15644> R0100: C00374-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmin R. C. ---DWFcms
15645>          COMPUTE DUALHYD        1. 0 01: A12             12. 29      2. 213 No_date    28: 01    62. 88  n/ a      . 000
15646>           Major System   /      1. 0 02: A12- MI          . 23        . 599 No_date    28: 05    62. 88  n/ a      .
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15709>                    +      1. 0 02: A9- MI              .00      .000 No_date    0: 00      .00  n/a      .000
15710>                    +      1. 0 02: A10- MI             .09      .218 No_date   28: 05    59. 73  n/a      .000
15711>                    +      1. 0 02: A1 1- MI            .16      .564 No_date   28: 06    67. 38  n/a      .000
15712>                    +      1. 0 02: A12- MI             .23      .599 No_date   28: 05    62. 88  n/a      .000
15713>                    +      1. 0 02: A13- MI             .00      .000 No_date    0: 00      .00  n/a      .000
15714>                   SUM=    1. 0 01: corrig        55020. 08   145. 505 No_date   36: 37    39. 46  n/a      .000
15715> R0100: C00386- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15716>       SAVE HYD             1. 0 01: corrig        55020. 08   145. 505 No_date   36: 37    39. 46  n/a      .000
15717>        fname : corrig. 0100
15718>        remark: Total Flows at Corrigan Pond
15719> #*****************************************************************************
15720> #    Corrigan Pond 1
15721> #    - Rating curve obtained from Barrhaven South MSS modeling
15722> #    - Tributary Drainage Area to MSS Pond 1 = 145 ha
15723> #*****************************************************************************
15724> #
15725> # Hydrograph from Corrigan Drain routed to Jockvale Road
15726> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
15727> #
15728> R0100: C00387- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15729>       ROUTE CHANNEL        ->     1. 0 02: corrig        55020. 08   145. 505 No_date   36: 37    39. 46  n/a      .000
15730>        [ RDT= 1. 00] out <-      1. 0 01: N_MI          55020. 08   145. 490 No_date   36: 40    39. 46  n/a      .000
15731>        [ L/ S/ n=  580. /  . 445/ . 045]
15732>        [ Vmx= 2. 170: Dmx= 2. 124]
15733> #*****************************************************************************
15734> #    Catchment MILLS
15735> #    - To SWM Facility north of the Jock
15736> #    - Primarily residental development
15737> #*****************************************************************************
15738> R0100: C00388- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15739>       CONTINUOUS STANDHYD   1. 0 01: MILLS          175. 99    20. 390 No_date   28: 06    56. 87  . 642    .000
15740>        [ XI M= . 38: TIMP= . 38]
15741>        [ LOSS= 2 : CN= 74. 0]
15742>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15743>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=1118. : MNI=. 013: SCI=    . 0]
15744>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
15745>        [ SMN= 36. 67: SMX=244. 49: SK=  . 010]
15746> #*****************************************************************************
15747> #    Chapman Mills SWM Pond
15748> #    - Rating curve obtained from CCL hydraulic modeling
15749> #*****************************************************************************
15750> R0100: C00389- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15751>       ROUTE RESERVOIR - >      1. 0 02: MILLS          175. 99    20. 390 No_date   28: 06    56. 87  n/a      .000
15752>                    out <=     1. 0 01: MILL_P         146. 22     4. 050 No_date   28: 08    56. 87  n/a      .000
15753>                 overflow <=   1. 0 03: MILL- OV        29. 77    16. 228 No_date   28: 08    56. 87  n/a      .000
15754>        [ MkSt ol ks ed=. 2310E+01   m3,  Tot Ovf Vol =. 1693E+01   m3,  % Ovf =     2,  Tot Dur Ovf =     1. hrs]
15755> R0100: C00390- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15756>       ADD HYD              1. 0 02: N_MI          55020. 08   145. 490 No_date   36: 40    39. 46  n/a      .000
15757>                    +      1. 0 02: MILL- OV            29. 77    16. 228 No_date   28: 08    56. 87  n/a      .000
15758>                    +      1. 0 02: MILL_P             146. 22     4. 050 No_date   28: 08    56. 87  n/a      .000
15759>                   SUM=    1. 0 01: SN_MI         55196. 07   146. 161 No_date   36: 39    39. 51  n/a      .000
15760> R0100: C00391- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15761>       SAVE HYD             1. 0 01: SN_MI         55196. 07   146. 161 No_date   36: 39    39. 51  n/a      .000
15762>        fname : SN_MI. 0100
15763>        remark: Total Flows at Jockvale Road
15764> #
15765> # Hydrograph from Jockvale Road routed to Heart's Desire
15766> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
15767> #
15768> R0100: C00392- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15769>       ROUTE CHANNEL        ->     1. 0 02: SN_MI         55196. 07   146. 161 No_date   36: 39    39. 51  n/a      .000
15770>        [ RDT= 1. 00] out <-      1. 0 01: N_DE          55196. 07   145. 839 No_date   36: 54    39. 51  n/a      .000
15771>        [ L/ S/ n= 1962. /  . 223/ . 045]
15772>        [ Vmx= 1. 642: Dmx= 2. 659]
15773> #*****************************************************************************
15774> #    Catchment DESIRE
15775> #    - To Jock River (north of the Jock)
15776> #    - Rural-estate subdivision (Heart's Desire Community)
15777> #*****************************************************************************
15778> R0100: C00393- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15779>       CONTINUOUS STANDHYD   1. 0 01: DESIRE          23. 78     3. 004 No_date   28: 03    53. 11  . 600    .000
15780>        [ XI M= . 25: TIMP= . 25]
15781>        [ LOSS= 2 : CN= 77. 0]
15782>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15783>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=    . 0]
15784>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
15785>        [ SMN= 31. 15: SMX=207. 66: SK=  . 010]
15786> #*****************************************************************************
15787> #    Catchment JOCKVA
15788> #    - To Jockvale SWM Facility
15789> #    - Residential development & golf course
15790> #    - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
15791> #      JOCKVA area became 225.13 ha instead of 257.63 ha.  JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
15792> #*****************************************************************************
15793> R0100: C00394- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15794>       CONTINUOUS STANDHYD   1. 0 01: JOCKVA          225. 13    28. 623 No_date   28: 07    62. 70  . 708    .000
15795>        [ XI M= . 50: TIMP= . 50]
15796>        [ LOSS= 2 : CN= 74. 0]
15797>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
15798>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=    . 0]
15799>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
15800>        [ SMN= 36. 67: SMX=244. 49: SK=  . 010]
15801> R0100: C00395- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15802>       ADD HYD              1. 0 02: EX-LAND- MN         30. 73     2. 275 No_date   27: 48    62. 82  n/a      .000
15803>                    +      1. 0 02: JOCKVA             225. 13    28. 623 No_date   28: 07    62. 70  n/a      .000
15804>                    +      1. 0 02: B2- MI              . 36       . 820 No_date   28: 05    62. 88  n/a      .000
15805>                    +      1. 0 02: B3- MI              . 19       . 402 No_date   28: 04    62. 88  n/a      .000
15806>                   SUM=    2. 0 01: JOCKVA- TO          256. 41    31. 850 No_date   28: 06    62. 71  n/a      .000
15807> R0100: C00396- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15808>       SAVE HYD             2. 0 01: JOCKVA- TO          256. 41    31. 850 No_date   28: 06    62. 71  n/a      .000
15809>        fname : JOCKVA- TO. 0100
15810>        remark: Total Flows at KB first pond
15811> #*****************************************************************************
15812> #    Jockvale SWM Facility
15813> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
15814> #*****************************************************************************
15815> R0100: C00397- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15816>       ROUTE RESERVOIR - >      1. 0 02: JOCKVA- TO          256. 41    31. 850 No_date   28: 06    62. 71  n/a      .000
15817>                    out <=     1. 0 01: JOCK_P              256. 41    12. 850 No_date   28: 35    62. 71  n/a      .000
15818>                 overflow <=   1. 0 03: JO- OVF               .00      .000 No_date    0: 00      .00  n/a      .000
15819>        [ MkSt ol ks ed=. 6430E+01   m3,  Tot Ovf Vol =. 0000E+00   m3,  % Ovf =     0,  Tot Dur Ovf =     0. hrs]
15820> R0100: C00398- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15821>       ADD HYD              1. 0 02: N_DE          55196. 07   145. 839 No_date   36: 54    39. 51  n/a      .000
15822>                    +      1. 0 02: DESIRE             23. 78     3. 004 No_date   28: 03    53. 11  n/a      .000
15823>                    +      1. 0 02: JO- OVF             .00       . 000 No_date    0: 00      .00  n/a      .000
15824>                    +      1. 0 02: JOCK_P             256. 41    12. 850 No_date   28: 35    62. 71  n/a      .000
15825>                   SUM=    1. 0 01: SN_DE         55476. 26   146. 840 No_date   36: 52    39. 63  n/a      .000
15826> R0100: C00399- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15827>       SAVE HYD             1. 0 01: SN_DE         55476. 26   146. 840 No_date   36: 52    39. 63  n/a      .000
15828>        fname : SN_DE. 0100
15829>        remark: Total Flows at Heart's Desire
15830> #
15831> # Hydrograph from Heart's Desire routed to Rideau River
15832> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
15833> #
15834> R0100: C00400- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15835>       ROUTE CHANNEL        ->     1. 0 02: SN_DE         55476. 26   146. 840 No_date   36: 52    39. 63  n/a      .000
15836>        [ RDT= 1. 00] out <-      1. 0 01: NI            55476. 26   146. 826 No_date   36: 55    39. 63  n/a      .000
15837>        [ L/ S/ n=  563. /  . 967/ . 045]
15838>        [ Vmx= 2. 218: Dmx= 1. 328]
15839> #*****************************************************************************
15840> #    Catchment S-2
15841> #    - To Jock River (north and south)
15842> #    - Undeveloped floodplain and river
15843> #*****************************************************************************
15844> R0100: C00401- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15845>       CONTINUOUS NASHYD     1. 0 01: S-2            102. 94     5. 685 No_date   28: 20    40. 95  . 462    .000
15846>        [ CN= 72. 0: N= 3. 00: Tp=   . 40]
15847>        [ IaREC= 4. 00: SMN= 39. 75: SMX=264. 99: SK=  . 010]
15848>        [ InterEventTime=  12. 00]
15849> R0100: C00402- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15850>       ADD HYD              1. 0 02: NI            55476. 26   146. 826 No_date   36: 55    39. 63  n/a      .000
15851>                    +      1. 0 02: S-2              102. 94     5. 685 No_date   28: 20    40. 95  n/a      .000
15852>                   SUM=    1. 0 01: SN_NI         55579. 20   147. 102 No_date   36: 55    39. 63  n/a      .000
15853> R0100: C00403- ---------- DTmin- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDate_hh: mm---- RVmm R. C. --- DWFcms
15854>       SAVE HYD             1. 0 01: SN_NI         55579. 20   147. 102 No_date   36: 55    39. 63  n/a      .000
15855>        fname : SN_NI. 0100
15856>        remark: Total Flows at Rideau River
15857> ###############################################################################
15858> R0100: C00002- ---------------------------------------------------------------------------------------------------
15859>       FINISH
15860> ---------------------------------------------------------------------------------------------------
15861> ***************************************************************************************************
15862>        WARNINGS / ERRORS / NOTES
15863>        -------------------------
15864> R0002: C00283   ROUTE RESERVOIR
15865> *** WARNING  Inflow peak was not reduced! Check OUTFLOW STORAGE table or reduce DT.
15866> R0002: C00305   ROUTE PIPE          ->
15867> *** WARNING  New pipe size used for routing.
15868> R0002: C00311   ROUTE PIPE          ->
15869> *** WARNING  New pipe size used for routing.
15870> R0002: C00344   DIVERT HYD          ->
15871> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15872> R0002: C00364   ROUTE PIPE          ->
15873> *** WARNING  New pipe size used for routing.
15874> R0002: C00371   ROUTE PIPE          ->
15875> *** WARNING  New pipe size used for routing.
15876> R0002: C00372   ROUTE PIPE          ->
15877> *** WARNING  New pipe size used for routing.
15878> R0002: C00380   ROUTE PIPE          ->
15879> *** WARNING  New pipe size used for routing.
15880> R0002: C00381   ROUTE PIPE          ->
15881> *** WARNING  New pipe size used for routing.
15882> R0005: C00283   ROUTE RESERVOIR
15883> *** WARNING  Inflow peak was not reduced! Check OUTFLOW STORAGE table or reduce DT.
15884> R0005: C00305   ROUTE PIPE          ->
15885> *** WARNING  New pipe size used for routing.
15886> R0005: C00311   ROUTE PIPE          ->
15887> *** WARNING  New pipe size used for routing.
15888> R0005: C00327   ROUTE PIPE          ->
15889> *** WARNING  New pipe size used for routing.
15890> R0005: C00328   ROUTE PIPE          ->
15891> *** WARNING  New pipe size used for routing.
15892> R0005: C00336   ROUTE PIPE          ->
15893> *** WARNING  New pipe size used for routing.
15894> R0005: C00344   DIVERT HYD          ->
15895> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15896> R0005: C00359   ROUTE PIPE          ->
15897> *** WARNING  New pipe size used for routing.
15898> R0005: C00364   ROUTE PIPE          ->
15899> *** WARNING  New pipe size used for routing.
15900> R0005: C00371   ROUTE PIPE          ->
15901> *** WARNING  New pipe size used for routing.
15902> R0005: C00372   ROUTE PIPE          ->
15903> *** WARNING  New pipe size used for routing.
15904> R0005: C00380   ROUTE PIPE          ->
15905> *** WARNING  New pipe size used for routing.
15906> R0005: C00381   ROUTE PIPE          ->
15907> *** WARNING  New pipe size used for routing.
15908> R0010: C00305   ROUTE PIPE          ->
15909> *** WARNING  New pipe size used for routing.
15910> R0010: C00311   ROUTE PIPE          ->
15911> *** WARNING  New pipe size used for routing.
15912> R0010: C00327   ROUTE PIPE          ->
15913> *** WARNING  New pipe size used for routing.
15914> R0010: C00328   ROUTE PIPE          ->
15915> *** WARNING  New pipe size used for routing.
15916> R0010: C00336   ROUTE PIPE          ->
15917> *** WARNING  New pipe size used for routing.
15918> R0010: C00344   DIVERT HYD          ->
15919> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15920> R0010: C00359   ROUTE PIPE          ->
15921> *** WARNING  New pipe size used for routing.
15922> R0010: C00364   ROUTE PIPE          ->
15923> *** WARNING  New pipe size used for routing.
15924> R0010: C00371   ROUTE PIPE          ->
15925> *** WARNING  New pipe size used for routing.
15926> R0010: C00372   ROUTE PIPE          ->
15927> *** WARNING  New pipe size used for routing.
15928> R0010: C00380   ROUTE PIPE          ->
15929> *** WARNING  New pipe size used for routing.
15930> R0010: C00381   ROUTE PIPE          ->
15931> *** WARNING  New pipe size used for routing.
15932> R0025: C00305   ROUTE PIPE          ->
15933> *** WARNING  New pipe size used for routing.
15934> R0025: C00311   ROUTE PIPE          ->
15935> *** WARNING  New pipe size used for routing.
15936> R0025: C00327   ROUTE PIPE          ->
15937> *** WARNING  New pipe size used for routing.
15938> R0025: C00328   ROUTE PIPE          ->
15939> *** WARNING  New pipe size used for routing.
15940> R0025: C00336   ROUTE PIPE          ->
15941> *** WARNING  New pipe size used for routing.
15942> R0025: C00344   DIVERT HYD          ->
15943> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15944> R0025: C00359   ROUTE PIPE          ->
15945> *** WARNING  New pipe size used for routing.
15946> R0025: C00364   ROUTE PIPE          ->
15947> *** WARNING  New pipe size used for routing.
15948> R0025: C00371   ROUTE PIPE          ->
15949> *** WARNING  New pipe size used for routing.
15950> R0025: C00372   ROUTE PIPE          ->
15951> *** WARNING  New pipe size used for routing.
15952> R0025: C00380   ROUTE PIPE          ->
15953> *** WARNING  New pipe size used for routing.
15954> R0025: C00381   ROUTE PIPE          ->
15955> *** WARNING  New pipe size used for routing.
15956> R0050: C00305   ROUTE PIPE          ->
15957> *** WARNING  New pipe size used for routing.
15958> R0050: C00311   ROUTE PIPE          ->
15959> *** WARNING  New pipe size used for routing.
15960> R0050: C00327   ROUTE PIPE          ->
15961> *** WARNING  New pipe size used for routing.
15962> R0050: C00328   ROUTE PIPE          ->
15963> *** WARNING  New pipe size used for routing.
15964> R0050: C00336   ROUTE PIPE          ->
15965> *** WARNING  New pipe size used for routing.
15966> R0050: C00344   DIVERT HYD          ->
15967> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15968> R0050: C00359   ROUTE PIPE          ->
15969> *** WARNING  New pipe size used for routing.
15970> R0050: C00364   ROUTE PIPE          ->
15971> *** WARNING  New pipe size used for routing.
15972> R0050: C00371   ROUTE PIPE          ->
15973> *** WARNING  New pipe size used for routing.
15974> R0050: C00372   ROUTE PIPE          ->
15975> *** WARNING  New pipe size used for routing.
15976> R0050: C00380   ROUTE PIPE          ->
15977> *** WARNING  New pipe size used for routing.
15978> R0050: C00381   ROUTE PIPE          ->
15979> *** WARNING  New pipe size used for routing.
15980> R0100: C00305   ROUTE PIPE          ->
15981> *** WARNING  New pipe size used for routing.
15982> R0100: C00311   ROUTE PIPE          ->
15983> *** WARNING  New pipe size used for routing.
15984> R0100: C00327   ROUTE PIPE          ->
15985> *** WARNING  New pipe size used for routing.
15986> R0100: C00328   ROUTE PIPE          ->
15987> *** WARNING  New pipe size used for routing.
15988> R0100: C00336   ROUTE PIPE          ->
15989> *** WARNING  New pipe size used for routing.
15990> R0100: C00344   DIVERT HYD          ->
15991> *** NOTE: Inflow hyd. is dry and cannot be diverted.
15992> R0100: C00359   ROUTE PIPE          ->
15993> *** WARNING  New pipe size used for routing.
15994> R0100: C00364   ROUTE PIPE          ->
15995> *** WARNING  New pipe size used for routing.
15996> R0100: C00371   ROUTE PIPE          ->
15997> *** WARNING  New pipe size used for routing.
15998> R0100: C00372   ROUTE PIPE          ->
15999> *** WARNING  New pipe size used for routing.
16000> R0100: C00380   ROUTE PIPE          ->
16001> *** WARNING  New pipe size used for routing.
16002> R0100: C00381   ROUTE PIPE          ->
16003> *** WARNING  New pipe size used for routing.
16004>    Simulation ended on 2021-03-04      at 11:57:06
16005> ===================================================================================================
16006>
16007>
```

Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

Attachment E

Model 4B – Jock River Reach One Future Conditions – With SWM controls

JFSA, 2021

SWMHYMO Input & Summary files

```
20    Metric units / ID numbers OFF
*#*************************************************************************
*#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
*#*************************************************************************
*#  Project Name: [Jock River]    Project Number: [1474-16]
*#  Date        : 04-03-2021
*#  Modeller    : [MM]
*#  Company     : JFSAinc.
*#  License #   :  2549237
*#*************************************************************************
*# CALIBRATION OF SUMMER MODEL PARAMETERS
*# USING CONTINUOUS SIMULATIONS
*# Rainfall data from JFSA raingauge installed at site + other gauges by the City
*# Use data collected from May 1st to July 14, 2003
*# 2020-11-30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0.1 instead of 0.0001)
*# 2020-12-01 correct pond curve values
*# 2020-12-01 change W_CLAR_BRAZ XIMP to 0.55, SLPI=[0.5](%) (impervious slope), and LGI up to 700m
*# 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"],NHYDin=["SN_TO"]) from 0.033 %(as per Stantec Report 2007) to 0.05 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*# 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"],NHYDin=["SN_CE"]) from 0.01 %(as per Stantec Report 2007) to 0.0255 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*
* Calibrated parameters for Summer 2003 data:  APII=50, APIK=0.85, CN=varies,
*                                              SK=0.01, InterEventTime=12,
*                                              GWResk=0.96, VHydCond=0.055
*
*# -----------------------------------------------------------------------
*
*START                TZERO=[2003.0501],  METOUT=[2],  NSTORM=[1],  NRUN=[001]
*                     ["XAVG0315.STM"] average storm data a 15 minute time step
*                     The above rainf file is an average of the JFSA gauge data
*                     with the City of Ottawa rainfall data collected during
*                     the same period.
*% 2 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[2]
                     ["C24SC002.stm"] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
READ STORM           STORM_FILENAME=["storm.001"]
*%-----------------|-------------------------------------------------------|
MODIFY STORM         ICASEms=[1],  NSHIFT=[96],
                     RedFACT=[1],
*%-----------------|-------------------------------------------------------|
DEFAULT VALUES       ICASEdef=[1],  read and print values
                     DEFVAL_FILENAME=["CitiGate.DEF"]
*%-----------------|-------------------------------------------------------|
COMPUTE API          APII=[50], APIK=[.85]/day
*%-----------------|-------------------------------------------------------|
*%-----------------|-------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%-----------------|-------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["JR_HW"], DT=[1]min, AREA=[3680](ha),
                     DWF=[0](cms),  CN/C=[64], IA=[2.5](mm),
                     N=[3.0], TP=[7.13]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
```

```
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.32
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_13"], DT=[1]min, AREA=[971](ha),
                        DWF=[0](cms),   CNVC=[61], IA=[2.5](mm),
                        N=[3.0], TP=[3.76]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_GWM"], DT=[1]min, AREA=[3074](ha),
                        DWF=[0](cms),   CNVC=[55], IA=[2.5](mm),
                        N=[3], TP=[11.33]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["JR_ASH"], DT=[1]min, AREA=[1781](ha),
                        DWF=[0](cms),   CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[3.91]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_11"], DT=[1]min, AREA=[500](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[1.24]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NN_CK"], DT=[1]min, AREA=[1917](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
```

```
                        N=[3.0], TP=[5.29]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.52
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_10"], DT=[1]min, AREA=[5666](ha),
                        DWF=[0](cms), CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[8.00]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["KG_CK"], DT=[1]min, AREA=[8376](ha),
                        DWF=[0](cms), CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[11.66]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.68
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_9"], DT=[1]min, AREA=[1132](ha),
                        DWF=[0](cms), CNVC=[70], IA=[2.5](mm),
                        N=[3.0], TP=[2.51]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["NC_CK"], DT=[1]min, AREA=[4464](ha),
                        DWF=[0](cms), CNVC=[62], IA=[2.5](mm),
                        N=[3.0], TP=[11.32]hrs,
                        Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.80
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_8"], DT=[1]min, AREA=[131](ha),
                        DWF=[0](cms),   CNVC=[63], IA=[2.5](mm),
                        N=[3.0], TP=[0.90]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.65
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["HB_DR"], DT=[1]min, AREA=[3854](ha),
                        DWF=[0](cms),   CNVC=[66], IA=[2.5](mm),
                        N=[3.0], TP=[8.42]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.82
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_7"], DT=[1]min, AREA=[3197](ha),
                        DWF=[0](cms),   CNVC=[57], IA=[2.5](mm),
                        N=[3.0], TP=[6.65]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.75
*%----------------|------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_6"], DT=[1]min, AREA=[165](ha),
                        DWF=[0](cms),   CNVC=[67], IA=[2.5](mm),
                        N=[3.0], TP=[4.18]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.67
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["VG_DR"], DT=[1]min, AREA=[1332](ha),
                        DWF=[0](cms),   CNVC=[72], IA=[2.5](mm),
                        N=[3.0], TP=[5.95]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5"], DT=[1]min, AREA=[224](ha),
                        DWF=[0](cms),   CNVC=[77], IA=[2.5](mm),
                        N=[3.0], TP=[0.75]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.20
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["FL_CK"], DT=[1]min, AREA=[4945](ha),
                        DWF=[0](cms),   CNVC=[74], IA=[2.5](mm),
                        N=[3.0], TP=[4.45]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_5A2"], DT=[1]min, AREA=[20](ha),
                        DWF=[0](cms),   CNVC=[81], IA=[2.5](mm),
                        N=[3.0], TP=[0.62]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
*# of 1.61
*%----------------|-------------------------------------------------------------|
```

```
CONTINUOUS NASHYD   NHYD=["SW_5A1"], DT=[1]min, AREA=[1412](ha),
                    DWF=[0](cms),  CNVC=[75], IA=[2.5](mm),
                    N=[3.0], TP=[8.00]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_4"], DT=[1]min, AREA=[585](ha),
                    DWF=[0](cms),  CNVC=[81], IA=[2.5](mm),
                    N=[3.0], TP=[1.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["LM_CK"], DT=[1]min, AREA=[1021](ha),
                    DWF=[0](cms),  CNVC=[80], IA=[2.5](mm),
                    N=[3.0], TP=[2.46]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SW_2"], DT=[1]min, AREA=[177](ha),
                    DWF=[0](cms),  CNVC=[77], IA=[2.5](mm),
                    N=[3.0], TP=[0.75]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["SM_DR"], DT=[1]min, AREA=[1122](ha),
                    DWF=[0](cms),  CNVC=[81], IA=[2.5](mm),
                    N=[3.0], TP=[3.25]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["MO_DR"], DT=[1]min, AREA=[2737](ha),
                    DWF=[0](cms),  CNVC=[76], IA=[2.5](mm),
                    N=[3.0], TP=[3.03]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
```

```
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*    -JFSA 2020 replaced SW_1 with a detailed model from Stantec Report 2007
*CONTINUOUS NASHYD   NHYD=["SW_1"], DT=[1]min, AREA=[3176](ha),
*                    DWF=[0](cms),  CN/C=[78], IA=[2.5](mm),
*                    N=[3.0], TP=[3.56]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*#
*# Routing hydrographs
*#
*# Starting with the addition of Jock River Headwater and Subwatershed 13
*#
ADD HYD             NHYDsum=["S_N13"], NHYDs to add=["JR_HW"+"SW_13"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 13 routed to Node 13A
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
*#
ROUTE CHANNEL       NHYDout=["N13A"] ,NHYDin=["S_N13"],
                    RDT=[1](min),
                    CHLGTH=[9074](m),   CHSLOPE=[0.0220](%),
                                          FPSLOPE=[0.0220](%),
                    SECNUM=[1.0],         NSEG=[1]
                    ( SEGROUGH, SEGDIST(m))=[0.04,15.5] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.0]
                          [15.5, 129.5]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
*#
ADD HYD             NHYDsum=["SN13A"], NHYDs to add=["N13A"+"JR_GWM"]
*%----------------|-------------------------------------------------------------|
*#
*# Insertion of a reservoir to simulate the effects of the Goodwood Marsh
*#
ROUTE RESERVOIR     NHYDout=["RES_GM"] ,NHYDin=["SN13A"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
```

```
                                        (cms) - (ha-m)
                                      [    0.0 ,   0.0 ]
                                      [1.991, 2.144    ]
                                      [2.693, 39.826   ]
                                      [3.509, 81.697   ]
                                      [4.578, 318.774  ]
                                      [5.647, 594.947  ]
                                      [7.109, 910.219  ]
                                      [8.616, 1264.589  ]
                                      [10.371, 1658.057  ]
                                      [12.402, 2090.622 ]
                                      [22.056, 3462.487 ]
                                      [    -1  ,   -1  ]  (max twenty pts)
                            NHYDovf=["      "] ,
*%----------------|-------------------------------------------------------------|
*#
SAVE HYD            NHYD=["RES_GM"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_RESGM"]
                    HYD_COMMENT=["Outflow from Res GM"]
*%----------------|-------------------------------------------------------------|
*# Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
ROUTE CHANNEL       NHYDout=["N12"] ,NHYDin=["RES_GM"] ,
                    RDT=[1](min),
                    CHLGTH=[5926](m),   CHSLOPE=[0.0759](%),
                                          FPSLOPE=[0.0759](%),
                    SECNUM=[1.0],         NSEG=[1]
                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                          [-40, 132.5]
                          [-30, 132]
                          [-25, 131.5]
                          [-13, 130]
                          [-8, 127.00]
                          [-7, 126.50]
                          [-6, 126]
                          [-5.5, 125.50]
                          [0, 123.75]
                          [4.5, 125.50]
                          [6, 126]
                          [7.5, 126.5]
                          [9, 127]
                          [10, 127.5]
                          [11.5, 128.00]
                          [15.5, 129.5]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed Jock River at Ashton to Node 12
*#
ADD HYD             NHYDsum=["S_N12"], NHYDs to add=["N12"+"JR_ASH"]
SAVE HYD            NHYD=["S_N12"],   # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN12"]
                    HYD_COMMENT=["flow at S_N12 near Ashton"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11
*# (Approximated cross-section - see cross-section 258)
*# Use n=0.04 for summer conditions and n=0.025 for spring conditions
*ROUTE CHANNEL       NHYDout=["N11"] ,NHYDin=["S_N12"] ,
*                    RDT=[1](min),
*                    CHLGTH=[972](m),   CHSLOPE=[0.0514](%),
*                                         FPSLOPE=[0.0514](%),
*                    SECNUM=[1.0],         NSEG=[1]
*                    ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
*                    ( DISTANCE (m), ELEVATION (m))=
```

```
*                               [-40,  132.5]
*                               [-30,  132]
*                               [-25,  131.5]
*                               [-13,  130]
*                               [-8,  127.00]
*                               [-7,  126.50]
*                               [-6,  126]
*                               [-5.5,  125.50]
*                               [0,  123.75]
*                               [4.5,  125.50]
*                               [6,  126]
*                               [7.5,  126.5]
*                               [9,  127]
*                               [10,  127.5]
*                               [11.5,  128.00]
*                               [15.5,  129.5]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
*#
ROUTE CHANNEL          NHYDout=["Duml1"] ,NHYDin=["S_N12"] ,
                       RDT=[1](min),
                       CHLGTH=[972](m),   CHSLOPE=[0.054](%),
                                            FPSLOPE=[0.054](%),
                       SECNUM=[1.0],          NSEG=[1]
                       ( SEGROUGH, SEGDIST (m))=[0.04,15.5] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                             [-40,  132.5]
                             [-30,  132]
                             [-25,  131.5]
                             [-13,  130]
                             [-8,  127.00]
                             [-7,  126.50]
                             [-6,  126]
                             [-5.5,  125.50]
                             [0,  123.75]
                             [4.5,  125.50]
                             [6,  126]
                             [7.5,  126.5]
                             [9,  127]
                             [10,  127.5]
                             [11.5,  128.00]
                             [15.5,  129.5]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 11 and No Name Creek to Node 11
*#
ADD HYD                NHYDsum=["S_N11"], NHYDs to add=["Duml1"+"SW_11"+"NN_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 11 routed to Node 10
*# Section 1
*#
ROUTE CHANNEL          NHYDout=["N10"] ,NHYDin=["S_N11"] ,
                       RDT=[1](min),
                       CHLGTH=[14028](m),   CHSLOPE=[0.1568](%),
                                            FPSLOPE=[0.1568](%),
                       SECNUM=[1.0],          NSEG=[5]
                       ( SEGROUGH, SEGDIST (m))=
                        [0.04,-52.82
                         0.1,-6.47
                         -0.05,6.47
                         0.1,45.36
                         0.04,423.88] NSEG times
                      ( DISTANCE (m), ELEVATION (m))=
                             [-226.24 ,112.50]
```

```
                                [-167.50 ,111.50]
                                [-106.81 ,111.00]
                                [-92.37 ,110.00]
                                [-52.82 ,109.00]
                                [-24.90, 109.00]
                                [-17.02, 108.50]
                                [-6.47, 108.00]
                                [6.47, 108.00]
                                [15.67, 108.50]
                                [18.95, 109.00]
                                [45.36, 109.50]
                                [120.79, 110.00]
                                [145.72, 111.00]
                                [181.56, 111.50]
                                [423.88, 112.50]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 10 to Node 10
*#
ADD HYD             NHYDsum=["S_N10"], NHYDs to add=["N10"+"SW_10"]
*%----------------|---------------------------------------------------------------|
SAVE HYD            NHYD=["S_N10"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN10"]
                    HYD_COMMENT=["flow at S_N10: N10 + SW_10"]
*%----------------|---------------------------------------------------------------|
*# Addition of Kings Creek to S_N10
*#
ADD HYD             NHYDsum=["S_N10A"], NHYDs to add=["S_N10"+"KG_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 10 routed to Node 9
*# Section 2
*#
ROUTE CHANNEL       NHYDout=["N9"] ,NHYDin=["S_N10A"] ,
                    RDT=[1](min),
                    CHLGTH=[3982](m),   CHSLOPE=[0.0753](%),
                                          FPSLOPE=[0.0753](%),
                    SECNUM=[1.0],         NSEG=[4]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.04,-30.27
                       0.05,-18.42
                      -0.05,18.42
                       0.04,131.58] NSEG times
                    ( DISTANCE(m), ELEVATION(m))=
                          [-446.74, 106.00]
                          [-415.68, 105.50]
                          [-285.40, 105.00]
                          [-173.77, 104.50]
                          [-144.95, 104.00]
                          [-111.18, 103.50]
                          [-94.06, 103.00]
                          [-71.02, 102.50]
                          [-30.27, 102.00]
                          [-19.33, 100.00]
                          [-18.42, 99.50]
                          [18.42, 99.50]
                          [20.77, 100.00]
                          [27.93, 101.00]
                          [52.29, 101.00]
                          [68.80, 101.50]
                          [79.66, 103.00]
                          [91.50, 103.50]
                          [131.58, 104.00]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 9 and Nichols Creek to Node 9
```

```
*#
ADD HYD                 NHYDsum=["S_N9"], NHYDs to add=["N9"+"SW_9"+"NC_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 9 routed to Node 8
*# Section 3
*#
ROUTE CHANNEL           NHYDout=["N8"] ,NHYDin=["S_N9"] ,
                        RDT=[1](min),
                        CHLGTH=[2269](m),   CHSLOPE=[0.0882](%),
                                             FPSLOPE=[0.0882](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.1,-17.99
                          -0.045,17.31
                          0.1,456.58] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                              [-201.19,100.50]
                              [-135.21, 100.00]
                              [-94.83, 99.50]
                              [-67.05, 99.00]
                              [-17.99, 98.50]
                              [-16.02, 98.00]
                              [-13.95, 97.50]
                              [13.95, 97.50]
                              [15.64, 98.00]
                              [17.31, 98.50]
                              [162.02, 98.50]
                              [172.89 ,99.00]
                              [314.38, 99.00]
                              [343.78, 99.50]
                              [365.67, 100.00]
                              [376.68, 100.00 ]
                              [393.11, 99.50]
                              [404.97, 99.50]
                              [431.70, 100.00]
                              [456.58, 100.50 ]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 8 and Hobb's Drain to Node 8
*#
ADD HYD                 NHYDsum=["S_N8"], NHYDs to add=["N8"+"SW_8"+"HB_DR"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 8 routed to Node 7
*# Section 4
*#
ROUTE CHANNEL           NHYDout=["N7"] ,NHYDin=["S_N8"],
                        RDT=[1](min),
                        CHLGTH=[3750](m),   CHSLOPE=[0.0533](%),
                                             FPSLOPE=[0.0533](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.12,-18.11
                          -0.07,17.22
                          0.12,590.05] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                              [-433.21, 102.00]
                              [-425.34, 101.50]
                              [-377.56, 101.50]
                              [-366.23, 101.00]
                              [-202.60, 100.50]
                              [-96.25, 99.50]
                              [-68.36 99.00]
                              [-18.11, 98.50]
                              [-13.81, 97.50]
```

```
                              [13.81,  97.50]
                              [17.22,  98.50]
                              [161.95,  98.50]
                              [173.11,  99.00]
                              [314.05,  99.00]
                              [365.52,  100.00]
                              [404.70,  99.50]
                              [476.74,  100.50]
                              [502.31,  101.00]
                              [584.69,  101.00]
                              [585.79,  101.00]
                              [590.05,  102.00]
*%----------------|-------------------------------------------------------------|
*#
*# Addition of Subwatershed 7 to Node 7
*#
ADD HYD             NHYDsum=["S_N7"], NHYDs to add=["N7"+"SW_7"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["S_N7"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_SN7"]
                    HYD_COMMENT=["flow at S_N7: N7 + SW_7"]
*%----------------|-------------------------------------------------------------|
*# Insertion of a reservoir to simulate the effects of the Richmond Fen.
*# Storage area and volumes were estimated from available topo maps.
*# Release rate from fen was assumed to be controlled by the downstream
*# river cross-section for summer conditions.  It is was assumed that for up to
*# 0.75 m of water, the main channel of the river provided the storage.  Above
*# this depth, the wetland starts to signigicantly store water.
*#
ROUTE RESERVOIR     NHYDout=["RES_RF"] ,NHYDin=["S_N7"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [    0.0 ,      0.0 ]
                                  [0.9051,      2.40]
                                  [2.907,       4.13]
                                  [9.744,       9.18]
                                  [20.304,     14.96]
                                  [34.167,    310.21]
                                  [74.993,    605.46]
                                  [104.876,  900.71]
                                  [140.56,  2892.00]
                                  [225.00,  3615.63]
                                  [    -1 ,    -1  ]  (max twenty pts)
                          NHYDovf=["       "] ,
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["RES_RF"],  # OF PCYCLES=[-1],  ICASEsh=[-1]
                    HYD_FILENAME=["H_ResRF"]
                    HYD_COMMENT=["outflow of Richmond Fen"]
*%----------------|-------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 7 routed to Node 6
*# Section 5
*#
ROUTE CHANNEL       NHYDout=["N6"] ,NHYDin=["RES_RF"] ,
                    RDT=[1](min),
                    CHLGTH=[3056](m),   CHSLOPE=[0.0818](%),
                                         FPSLOPE=[0.0818](%),
                    SECNUM=[1.0],        NSEG=[5]
                    ( SEGROUGH, SEGDIST(m))=
                      [0.025,-70.8
                      0.1,-23.9
                      -0.05,23.9
                      0.06,39.8
```

```
                          0.05,96.3] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                                        [-100.8, 97.00]
                                        [-70.8, 96.50]
                                        [-52.0, 96.00]
                                        [-35.1, 95.50]
                                        [-30.6, 95.00]
                                        [-23.9, 94.54]
                                        [23.9, 94.54]
                                        [39.8, 95.00]
                                        [50.4, 95.50]
                                        [93.5, 96.00]
                                        [94.9, 96.50]
                                        [96.3, 97.00]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 6 and Van Gaal Drain to Node 6
*#
ADD HYD             NHYDsum=["S_N6"], NHYDs to add=["N6"+"SW_6"+"VG_DR"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 6 routed to Node 5
*# Section 6
*#
ROUTE CHANNEL       NHYDout=["N5"] ,NHYDin=["S_N6"] ,
                    RDT=[1](min),
                    CHLGTH=[1852](m),   CHSLOPE=[0.0540](%),
                                          FPSLOPE=[0.0540](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.035,-131.59
                      -0.045,48.96
                      0.1,239.04] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                                        [-686.30, 94.50]
                                        [-675.70, 94.00]
                                        [-492.52, 93.00]
                                        [-467.28, 94.00]
                                        [-131.59, 94.00]
                                        [-92.79, 92.50]
                                        [-18.06, 91.00]
                                        [18.06, 91.00]
                                        [43.47, 92.50]
                                        [48.96, 94.00]
                                        [177.43, 94.00]
                                        [239.04,94.50]
*%----------------|---------------------------------------------------------------|
*#
*# Addition of Subwatershed 5 and Flowing Creek to Node 5
*#
ADD HYD             NHYDsum=["S_N5"], NHYDs to add=["N5"+"SW_5"+"FL_CK"]
*%----------------|---------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5 routed to Node 5A
*# Section 7
*#
ROUTE CHANNEL       NHYDout=["N5A"] ,NHYDin=["S_N5"] ,
                    RDT=[1](min),
                    CHLGTH=[556](m),   CHSLOPE=[0.0900](%),
                                         FPSLOPE=[0.0900](%),
                    SECNUM=[1.0],         NSEG=[4]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.04,-41.5
                      0.1,-14.0
                      -0.045,14.0
                      0.1,41.1] NSEG times
```

```
                        ( DISTANCE (m), ELEVATION (m)) =
                                        [-275.8,  93.00]
                                        [-248.6,  92.50]
                                        [-237.0,  92.00]
                                        [-219.3,  91.50]
                                        [-202.1,  91.50]
                                        [-186.0,  92.00]
                                        [-129.2,  92.00]
                                        [-117.6,  91.50]
                                        [-100.6,  91.00]
                                        [-41.5,  91.00]
                                        [-20.0,  91.00]
                                        [-14.0,  90.54]
                                        [14.0,  90.54]
                                        [15.3,  91.00]
                                        [17.3,  91.50]
                                        [38.4,  92.00]
                                        [39.8,  92.50]
                                        [41.1,  93.00]
*%----------------|------------------------------------------------------------|
*#
*# Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
*#
ADD HYD                 NHYDsum=["S_N5A"],  NHYDs to add=["N5A"+"SW_5A2"+"SW_5A1"]
*%----------------|------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 5A routed to Node 4
*# Section 8
*#
ROUTE CHANNEL           NHYDout=["N4"] ,NHYDin=["S_N5A"] ,
                        RDT=[1](min),
                        CHLGTH=[4630](m),   CHSLOPE=[0.0432](%),
                                             FPSLOPE=[0.0432](%),
                        SECNUM=[1.0],        NSEG=[3]
                        ( SEGROUGH, SEGDIST (m)) =
                          [0.05,-28.2
                          -0.035,28.2
                          0.05,173.1] NSEG times
                        ( DISTANCE (m), ELEVATION (m)) =
                                        [-38.9,  92.00]
                                        [-35.8,  91.50]
                                        [-33.3,  91.00]
                                        [-28.2,  90.50]
                                        [-15.0,  87.48]
                                        [-5.0,  88.34]
                                        [5.0,  86.20]
                                        [15.0,  88.55]
                                        [28.2,  90.50]
                                        [29.7,  91.00]
                                        [46.5,  91.00]
                                        [127.8,  91.00]
                                        [148.7,  91.50]
                                        [173.1,  92.00]
*%----------------|------------------------------------------------------------|
*#
*# Addition of Subwatershed 4 and Leamy Creek to Node 4
*#
ADD HYD                 NHYDsum=["S_N4"],  NHYDs to add=["N4"+"SW_4"+"LM_CK"]
SAVE HYD                NHYD=["S_N4"],   # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["flow at  S_N4"]
*%----------------|------------------------------------------------------------|
*#
*# Sum of hydrographs from Node 4 routed to Node 2
*# Section 9
*#
ROUTE CHANNEL           NHYDout=["N2"] ,NHYDin=["S_N4"] ,
```

```
                        RDT=[1](min),
                        CHLGTH=[1667](m),   CHSLOPE=[0.0600](%),
                                              FPSLOPE=[0.0600](%),
                        SECNUM=[1.0],         NSEG=[4]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.1,-28.0
                          -0.04,28.4
                          0.06,31.7
                          0.04,80.2] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                                [-36.3, 92.00]
                                [-32.6, 91.50]
                                [-30.2, 91.00]
                                [-28.0, 90.45]
                                [-15.0, 87.48]
                                [-5.0, 88.34]
                                [5.0, 86.20]
                                [15.0, 88.55]
                                [28.0, 90.45]
                                [28.4, 90.50]
                                [30.4, 91.00]
                                [31.7, 91.50]
                                [80.2, 92.00]
*%----------------|---------------------------------------------------------|
*#
*# Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
*#
ADD HYD             NHYDsum=["S_N2"], NHYDs to add=["N2"+"SW_2"+"SM_DR"+"MO_DR"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["S_N2"],   # OF PCYCLES=[-1],   ICASEsh=[-1]
                    HYD_FILENAME=["H_SN2"]
                    HYD_COMMENT=["flow at S_N2 Jock River Gauge at Moodie Dr."]
*%----------------|---------------------------------------------------------|
*#
*# Sum of hydrographs from Node 2 routed to Node 1
*# Section 10
*#
*#########################################################################
*%READ HYD            NHYD=["S_N2"],
*%                    HYD_FILENAME=["H-S_N2"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Node 2 routed to Node 416
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
*#
ROUTE CHANNEL       NHYDout=["N_416"] ,NHYDin=["S_N2"] ,
                    RDT=[1](min),
                    CHLGTH=[2327](m),   CHSLOPE=[0.0498](%),
                                          FPSLOPE=[0.0498](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.075,-23.96
                      -0.055,23.96
                      0.075,157.38]  NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-336.97,93.5]
                    [-318.85,93]
                    [-259,92.5]
                    [-133.18,92]
                    [-33.17,92]
                    [-27.21,92]
                    [-26.14,91.5]
                    [-24.99,91]
                    [-23.96,90.5]
                    [-14.33,88.26]
                    [-0.68,88.12]
```

```
                        [14.33,88.26]
                        [23.96,90.5]
                        [32.12,91]
                        [43.74,91.5]
                        [57.09,92]
                        [73.53,92.5]
                        [108.27,93]
                        [125.88,93.5]
                        [144.81,94]
                        [157.38,94.5]
*%----------------|---------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment SW_1a
*#     - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
*#     - Undeveloped agricultural land
*#*****************************************************************************
CONTINUOUS NASHYD   NHYD=["SW_1a"], DT=[1]min, AREA=[536.42](ha),
                    DWF=[0](cms), CN/C=[72],  IA=[4.67](mm),
                    N=[3], TP=[2.79]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-Okeefe" is a part of S-1 sub-catchment. It is moved to drain before station 7245 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-Okeefe"], DT=[1](min), AREA=[44.93](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
                    LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                    IAper=[4.67](mm), SLPP=[2.0](%),
                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                    IAimp=[1.57](mm), SLPI=[0.75](%),
                    LGI=[547.296](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["S-1-Okeefe"], CINLET=[4.591](cms), NINLET=[1],
                    MajNHYD=["S-1-OkMJ"]
                    MinNHYD=["S-1-OkMN"]
                    TMJSTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["S-1-OkS"], NHYDs to add=["S-1-OkMJ"+"S-1-OkMN"]
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["S-1-OkSR"] ,NHYDin=["S-1-OkS"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                [ 0.0     , 0.0 ]
                                [ 0.5370, 1.7917 ]
                                [    -1   ,  -1    ]  (max twenty pts)
                          NHYDovf=["S-1-OkSovf"]
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_416"], NHYDs to add=["N_416"+"SW_1a"+"S-1-OkSR"+"S-1-OkSovf"]
*%----------------|---------------------------------------------------------------|
SAVE HYD            NHYD=["SN_416"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Highway 416 before Station 7245"]
*%----------------|---------------------------------------------------------------|
*#
*# Hydrograph from Node 416 routed to Node at Okeefe drain
```

```
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
*#
ROUTE CHANNEL          NHYDout=["N_OK"] ,NHYDin=["SN_416"] ,
                       RDT=[1](min),
                       CHLGTH=[497](m),   CHSLOPE=[0.3018](%),
                                            FPSLOPE=[0.3018](%),
                       SECNUM=[1.0],        NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=
                         [0.075,-19.40
                         -0.055,19.40
                         0.075,377.02] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=
                       [-1061.41, 92.50]
                       [-945.91, 92.00]
                       [-783.64, 91.50]
                       [-136.74, 91.00]
                       [-86.04, 91.00]
                       [-20.86, 91.00]
                       [-20.18, 90.50]
                       [-19.40, 90.00]
                       [-11.68, 86.89]
                       [0.00, 86.10]
                       [12.09, 86.81]
                       [19.40, 90.00]
                       [34.68, 90.50]
                       [60.56, 91.00]
                       [170.14, 91.00]
                       [175.05, 90.50]
                       [180.29, 90.00]
                       [193.41, 90.00]
                       [195.98, 90.50]
                       [377.02, 92.50]
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#     Catchment OKEEFE
*#     - To O'Keefe drain (north of the Jock)
*#     - Developed with assumed 43% imp.
*#     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
*#     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
*%----------------|-----------------------------------------------------------|
*POST DEVELOPMENT CONDITIONS
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
CONTINUOUS NASHYD      NHYD=["O-1"], DT=[1]min, AREA=[63.72](ha),
                       DWF=[0](cms), CN/C=[61], IA=[6.2](mm), N=[3], TP=[.9]hrs,
                       Continuous simulation parameters:
                       IaRECper=[4](hrs),
                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                       InterEventTime=[12](hrs)
                       Baseflow simulation parameters:
                       BaseFlowOption=[1] ,
                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-----------------------------------------------------------------------------------------------|
*ROUTE FLOW THROUGH AREA 0-2
ROUTE CHANNEL          NHYDout=["O-1R"], NHYDin=["O-1"], RDT=[1](min),
                       CHLGTH=[960](m), CHSLOPE=[0.63](%), FPSLOPE=[0.63](%),
                       SECNUM=[1], NSEG=[3]
                       ( SEGROUGH, SEGDIST (m))=[0.06,4 -.043,6 0.06,10] NSEG times
                       ( DISTANCE (m), ELEVATION (m))=[0.00, 2.0]
                       [0.0, 2.0]
                       [4.0, 0.0]
                       [6.0, 0.0]
```

```
                        [10.0, 2.0]
*%----------------|-----------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["O-2"], DT=[1]min, AREA=[28.61](ha),
                     DWF=[0](cms), CN/C=[57], IA=[5.2](mm), N=[3], TP=[1.1]hrs,
                    Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-----------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["O-4"], DT=[1]min, AREA=[46.94](ha),
                     DWF=[0](cms), CN/C=[49], IA=[9.2](mm), N=[3], TP=[0.9]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-----------------------------------------------------------|
*TOTAL EXTERNAL FLOW NORTH OF O'KEEFE CT. CROSSING
ADD HYD              NHYDsum=["OKF-N"], NHYDs to add=["O-1R"+"O-2"+"O-4"]
*%----------------|-----------------------------------------------------------|
*ROUTE FLOW THROUGH AREA O-6
ROUTE CHANNEL        ROUTE CHANNEL NHYDout=["OKF-NR"], NHYDin=["OKF-N"], RDT=[1](min),
                     CHLGTH=[210](m), CHSLOPE=[.81](%), FPSLOPE=[.81](%),
                     SECNUM=[1], NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=[0.043,22.43 -0.043,25.07
                     0.043,45.54] NSEG times
                     ( DISTANCE (m), ELEVATION (m))=[0.00, 3.73]
                     (14.62, 1.56)
                     (18.41, 1.44)
                     (22.43, 0.00)
                     (25.07, 0.70)
                     (29.10, 1.79)
                     (33.73, 2.71)
                     (45.54, 3.58)
*%----------------|-----------------------------------------------------------|
CONTINUOUS NASHYD    NHYD=["O-6"], DT=[1]min, AREA=[16.46](ha),
                     DWF=[0](cms), CN/C=[43], IA=[9.2](mm), N=[3], TP=[0.7]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-----------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["O-3"], DT=[1](min), AREA=[39.67](ha), XIMP=[0.15],
TIMP=[0.30], DWF=[0](cms),
                     LOSS=[2], SCS curve number CN=[50], Pervious surfaces:
                     IAper=[4.67](mm), SLPP=[0.32](%),
                     LGP=[440](m), MNP=[0.035], SCP=[0](min), Impervious surfaces:
                     IAimp=[1.57](mm), SLPI=[0.32](%),
                     LGI=[1880](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs), IaRECimp=[4](hrs),
                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs),    END=-1
*%----------------|-----------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["O-5"], DT=[1](min), AREA=[60.63](ha), XIMP=[0.13],
```

```
    TIMP=[0.26], DWF=[0](cms),
                        LOSS=[2], SCS curve number CN=[61],
                        Pervious surfaces: IAper=[4.67](mm), SLPP=[1.38](%),
                        LGP=[550](m), MNP=[0.035], SCP=[0](min), Impervious surfaces:
                        IAimp=[1.57](mm), SLPI=[1.38](%),
                        LGI=[1450](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs), END=-1
    *%----------------|-------------------------------------------------------|
    *TOTAL EXTERNAL FLOWS WEST OF THE SITE AND NORTH OF O'KEEFE CRT
    *%----------------|-------------------------------------------------------|
    ADD HYD             NHYDsum=["PT1"], NHYDs to add=["OKF-NR"+"O-3"+"O-5"+"O-6"]
    *%----------------|-------------------------------------------------------|
    CONTINUOUS NASHYD   NHYD=["O-7"], DT=[1]min, AREA=[5.28](ha),
                        DWF=[0](cms), CN/C=[54], IA=[7.5](mm), N=[3], TP=[0.6]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr), END=-1
    *%----------------|-------------------------------------------------------|
    *ANALYSIS POINT 1 - TOTAL FLOW NORTH OF FALLOWFIELD DR. AND O'KEEFE CRT.
    ADD HYD             NHYDsum=["FF"], NHYDs to add=["PT1"+"O-7"]
    *%----------------|-------------------------------------------------------|
    *ROUTE FLOW through O'Keefe Drain 1
    ROUTE CHANNEL       NHYDout=["DRAIN1"], NHYDin=["FF"], RDT=[1](min),
                        CHLGTH=[302]{m), CHSLOPE=[1.00](%), FPSLOPE=[1.00](%),
                        SECNUM=[1], NSEG=[3]
                        (SEGROUGH, SEGDIST(m))=[0.07,13.45 -0.043,16.55 0.07,30.00] NSEG
                        times
                        (DISTANCE(m), ELEVATION(m))=[0.00, 1.70]
                        (3.45, 0.60)
                        (13.45, 0.50)
                        (14.45, 0.00)
                        (15.55, 0.00)
                        (16.55, 0.50)
                        (26.55, 0.60)
                        (30.00, 1.70)
    *%----------------|-------------------------------------------------------|
    CONTINUOUS NASHYD   NHYD=["D1"], DT=[1]min, AREA=[1.17](ha),
                        DWF=[0](cms), CN/C=[84], IA=[9.0](mm), N=[3], TP=[0.28]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr), END=-1
    *%----------------|-------------------------------------------------------|
    CONTINUOUS STANDHYD NHYD=["A1"], DT=[1]min, AREA=[2.50](ha), XIMP=[0.68], TIMP=[0.85],
    DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[223.607](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
```

```
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A1-STR"], NHYDin=["A1"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.035 , 0.038 ]
                                  [ 0.072 , 0.051 ]
                                  [ 0.100 , 0.059 ]
                                  [ 0.125 , 0.070 ]
                                  [ 0.160 , 0.074 ]
                                  [ 0.185 , 0.081 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["A1-OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-2"], DT=[1]min, AREA=[0.59](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[108.628](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST2STR"], NHYDin=["ST-2"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.0000 ]
                                  [ 0.052 , 0.0010 ]
                                  [ 0.053 , 0.0080 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["ST2OVF"]
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
*TOTAL FLOW NORTH OF STRANDHERD DR. (EAST BRANCH) CROSSING
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["O-8"], DT=[1]min, AREA=[60.55](ha),
                    DWF=[0](cms), CN/C=[69], IA=[4.0](mm), N=[3], TP=[1.0]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
ROUTE PIPE          PTYPE=[2]rect, NHYDout=["O8PIPE"], RNUMBER=[1], PWIDTH=[1800](mm),
PHEIGHT=[1200](mm), PLNGTH=[335.1](m),
                    PROUGH=[0.013], PSLOPE=[0.001](m/m), NHYDin=["O-8"], RDT=[1](min)
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["ST2-IN"], NHYDs to
add=["DRAIN1"+"D1"+"A1-STR"+"A1-OVF"+"ST2STR"+"ST2OVF"+"O8PIPE"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A7"], DT=[1]min, AREA=[3.51](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                    LGI=[264.953](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
```

```
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["A7-STR"], NHYDin=["A7"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [ 0.000 , 0.000 ]
                                    [ 0.049 , 0.054 ]
                                    [ 0.102 , 0.072 ]
                                    [ 0.140 , 0.082 ]
                                    [ 0.175 , 0.099 ]
                                    [ 0.225 , 0.105 ]
                                    [ 0.260 , 0.114 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["A7-OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-3"], DT=[1]min, AREA=[0.71](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious  areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[119.164](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["ST3STR"], NHYDin=["ST-3"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [ 0.000 , 0.0000 ]
                                    [ 0.063 , 0.0010 ]
                                    [ 0.064 , 0.0094 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["ST3OVF"]
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 2 - TOTAL FLOW AT OUTLET OF STREET 2/3 INTERSECTION
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["PT2ST3"], NHYDs to
add=["ST2-IN"+"A7-STR"+"A7-OVF"+"ST3STR"+"ST3OVF"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 2
ROUTE CHANNEL           NHYDout=["DRAIN2"], NHYDin=["PT2ST3"], RDT=[1](min),
                        CHLGTH=[592](m), CHSLOPE=[.23](%), FPSLOPE=[.23](%),
                                              SECNUM=[1], NSEG=[3]
                        (SEGROUGH, SEGDIST(m))=[0.07,12.60 -0.043,17.40 0.07,30.00] NSEG
                        times
                        (DISTANCE(m), ELEVATION(m))=[0.00, 1.70]
                        (2.60, 0.95)
                        (12.60, 0.75)
                        (14.10, 0.00)
                        (15.90, 0.00)
                        (17.40, 0.75)
                        (27.40, 0.95)
                        (30.00, 1.70)
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD       NHYD=["D2"], DT=[1]min, AREA=[2.28](ha), DWF=[0](cms), CN/C=[84],
IA=[9.0](mm),
                        N=[3], TP=[0.99]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
```

```
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A17"], DT=[1]min, AREA=[12.04](ha), XIMP=[0.68],
TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[490.714](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A17STR"], NHYDin=["A17"], RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.000 , 0.000 ]
                                    [ 0.169 , 0.185 ]
                                    [ 0.349 , 0.248 ]
                                    [ 0.482 , 0.283 ]
                                    [ 0.602 , 0.338 ]
                                    [ 0.771 , 0.359 ]
                                    [ 0.891 , 0.391 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["A17OVF"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-4"], DT=[1]min, AREA=[0.35](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[83.666](m),
                        MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST4STR"], NHYDin=["ST-4"], RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.000 , 0.0000 ]
                                    [ 0.031 , 0.0010 ]
                                    [ 0.032 , 0.0050 ]
                                    [ -1 , -1 ] (max twenty pts)
                                    NHYDovf=["ST4OVF"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A18"], DT=[1]min, AREA=[5.30](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[325.576](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["A18STR"], NHYDin=["A18"], RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.000 , 0.000 ]
                                    [ 0.074 , 0.082 ]
```

```
                                        [ 0.154 , 0.109 ]
                                        [ 0.212 , 0.125 ]
                                        [ 0.265 , 0.149 ]
                                        [ 0.339 , 0.158 ]
                                        [ 0.392 , 0.172 ]
                                        [ -1 , -1 ] (max twenty pts)
                                        NHYDovf=["A18OVF"]
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 3 - TOTAL FLOW AT OUTLET OF STREET 4
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["PT3ST4"], NHYDs to
add=["DRAIN2"+"D2"+"A17STR"+"A17OVF"+"ST4STR"+"ST4OVF"+"A18STR"+"A18OVF"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 3
ROUTE CHANNEL     NHYDout=["DRAIN3"], NHYDin=["PT3ST4"], RDT=[1](min),
                  CHLGTH=[525](m), CHSLOPE=[.23](%), FPSLOPE=[.23](%),
                  SECNUM=[1], NSEG=[3]
                  (SEGROUGH, SEGDIST(m))=[0.07,12.50 -0.043,17.50 0.07,30.00] NSEG
                  times
                  (DISTANCE(m), ELEVATION(m))=[0.00, 1.70]
                  (2.50, 1.00)
                  (12.50, 0.80)
                  (14.10, 0.00)
                  (15.90, 0.00)
                  (17.50, 0.80)
                  (27.50, 1.00)
                  (30.00, 1.70)
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD NHYD=["D3"], DT=[1]min, AREA=[2.51](ha),
                  DWF=[0](cms), CNVC=[86], IA=[8.7](mm), N=[3], TP=[0.73]hrs,
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),
                  SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[12](hrs)
                  Baseflow simulation parameters:
                  BaseFlowOption=[1] ,
                  InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                  VHydCond=[0.055](mm/hr), END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C1"], DT=[1]min, AREA=[3.41](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                  LGI=[261.151](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR   NHYDout=["C1-STR"], NHYDin=["C1"], RDT=[1](min),
                        TABLE of (OUTFLOW-STORAGE) values
                                (cms) - (ha-m)
                                [ 0.000 , 0.000 ]
                                [ 0.048 , 0.052 ]
                                [ 0.099 , 0.070 ]
                                [ 0.136 , 0.080 ]
                                [ 0.170 , 0.096 ]
                                [ 0.218 , 0.102 ]
                                [ 0.252 , 0.111 ]
                                [ -1 , -1 ] (max twenty pts)
                                NHYDovf=["C1-OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-5"], DT=[1]min, AREA=[0.45](ha), XIMP=[0.46],
TIMP=[0.57], DWF=[0](cms), LOSS=[1]:
```

```
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[94.868](m),
                        MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["ST5STR"], NHYDin=["ST-5"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [ 0.000 , 0.0000 ]
                                      [ 0.040 , 0.0010 ]
                                      [ 0.041 , 0.0062 ]
                                      [ -1 , -1 ] (max twenty pts)
                                      NHYDovf=["ST5OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["ST5-E"], NHYDs to
add=["DRAIN3"+"D3"+"C1-STR"+"C1-OVF"+"ST5STR"+"ST5OVF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["STRAND"], DT=[1](min), AREA=[7.59](ha),
                        XIMP=[0.64], TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[1230](m),
                        MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["S-POND"], NHYDin=["STRAND"], RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [ 0.000 , 0.000 ]
                                      [ 0.033 , 0.188 ]
                                      [ 0.057 , 0.253 ]
                                      [ 0.104 , 0.287 ]
                                      [ 0.160 , 0.336 ]
                                      [ 0.340 , 0.346 ]
                                      [ 0.471 , 0.360 ]
                                      [ 0.824 , 0.390 ]
                                      [ -1 , -1 ] (max twenty pts)
                                      NHYDovf=["S-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["SSAOUT"], NHYDs to add=["ST5-E"+"S-POND"+"S-OVF"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["SSAOUT"], # OF PCYCLES=[5], ICASEsh=[1]
                        HYD_COMMENT=["SSAOUT"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["Area-A"], DT=[1]min, AREA=[66.75](ha), XIMP=[0.64],
TIMP=[0.80], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[1155.422](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["Area-A"], # OF PCYCLES=[1], ICASEsh=[1]
```

```
                        HYD_COMMENT=["SMWF-A Inflow"]
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["SWMF-A"], NHYDin=["Area-A"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.103 , 1.077 ]
                                  [ 0.128 , 1.749 ]
                                  [ 0.382 , 2.282 ]
                                  [ 0.703 , 2.582 ]
                                  [ 1.256 , 2.978 ]
                                  [ 1.567 , 3.202 ]
                                  [ 1.955 , 3.493 ]
                                  [ 2.100 , 3.600 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["SWMAOV"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["SWMF-A"], # OF PCYCLES=[1], ICASEsh=[1]
                        HYD_COMMENT=["SMWF-A Outflow"]
*%----------------|---------------------------------------------------------|
*ANALYSIS POINT 4 - TOTAL FLOW AT OUTLET OF STREET 5
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["PT4ST5"], NHYDs to add=["SSAOUT"+"SWMF-A"+"SWMAOV"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C6"], DT=[1]min, AREA=[1.87](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[193.391](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["C6-STR"], NHYDin=["C6"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.026 , 0.029 ]
                                  [ 0.054 , 0.038 ]
                                  [ 0.075 , 0.044 ]
                                  [ 0.093 , 0.052 ]
                                  [ 0.120 , 0.056 ]
                                  [ 0.138 , 0.061 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["C6-OVF"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["C7"], DT=[1]min, AREA=[1.62](ha), XIMP=[0.68], TIMP=[0.85],
DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[180.000](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["C7-STR"], NHYDin=["C7"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.000 ]
                                  [ 0.023 , 0.025 ]
```

```
                                        [ 0.047 , 0.033 ]
                                        [ 0.065 , 0.038 ]
                                        [ 0.081 , 0.045 ]
                                        [ 0.104 , 0.048 ]
                                        [ 0.120 , 0.053 ]
                                        [ -1 , -1 ] (max twenty pts)
                                        NHYDovf=["C7-OVF"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["ST-6"], DT=[1]min, AREA=[0.41](ha),XIMP=[0.46], TIMP=[0.57],
DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[50](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%), LGI=[90.554](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["ST6STR"], NHYDin=["ST-6"], RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [ 0.000 , 0.0000 ]
                                  [ 0.036 , 0.0010 ]
                                  [ 0.037 , 0.0058 ]
                                  [ -1 , -1 ] (max twenty pts)
                                  NHYDovf=["ST6OVF"]
*%----------------|---------------------------------------------------------|
*ANALYSIS POINT 5 - TOTAL FLOW AT OUTLET OF STREET 6
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["PT5ST6"], NHYDs to
add=["PT4ST5"+"C6-STR"+"C6-OVF"+"C7-STR"+"C7-OVF"+"ST6STR"+"ST6OVF"]
*%----------------|---------------------------------------------------------|
*ROUTE FLOW through O'Keefe Drain 4
ROUTE CHANNEL       NHYDout=["DRAIN4"], NHYDin=["PT5ST6"], RDT=[1](min),
                    CHLGTH=[324](m), CHSLOPE=[.10](%), FPSLOPE=[.10](%),
                    SECNUM=[1], NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=[0.07,12.00 -0.043,18.00 0.07,30.00] NSEG
                    times
                    ( DISTANCE (m), ELEVATION (m))=[0.00, 2.00]
                    (2.00, 1.20)
                    (12.00, 1.00)
                    (14.00, 0.00)
                    (16.00, 0.00)
                    (18.00, 1.00)
                    (28.00, 1.20)
                    (30.00, 2.00)
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["D4"], DT=[1]min, AREA=[1.73](ha), DWF=[0](cms), CN/C=[88],
IA=[8.4](mm),
                    N=[3], TP=[0.60]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["Area-B"], DT=[1]min, AREA=[24.04](ha), XIMP=[0.62],
TIMP=[0.77], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[1.4](%), LGP=[50](m),
```

```
                        MNP=[0.250], SCP=[0](min),
1614                    Impervious areas: IAimp=[1.57](mm), SLPI=[1.4](%),
                        LGI=[693.397](m), MNI=[0.013], SCI=[0](min),
1615                    Continuous simulation parameters:
1616                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
1617    *%--------------|-------------------------------------------------------------|
1618    ROUTE RESERVOIR     NHYDout=["SWMF-B"], NHYDin=["Area-B"], RDT=[1](min),
1619                              TABLE of ( OUTFLOW-STORAGE ) values
1620                                        (cms) - (ha-m)
1621                                      [ 0.000 , 0.000 ]
1622                                      [ 0.025 , 0.090 ]
1623                                      [ 0.175 , 0.510 ]
1624                                      [ 0.350 , 0.710 ]
1625                                      [ 0.495 , 0.820 ]
1626                                      [ 0.648 , 0.980 ]
1627                                      [ 0.965 , 1.045 ]
1628                                      [ 1.072 , 1.140 ]
1629                                      [ -1 , -1 ] (max twenty pts)
1630                                      NHYDovf=["SWMBOVF"]
1631    *%--------------|-------------------------------------------------------------|
1632    ADD HYD             NHYDsum=["D4-EX"], NHYDs to add=["DRAIN4"+"D4"+"SWMF-B"+"SWMBOVF"]
1633    *%--------------|-------------------------------------------------------------|
1634    *ROUTE FLOW THROUGH O'Keefe Drain 5
1635    * JFSA: Nov. 2020, added en points to close X-Section
1636    ROUTE CHANNEL       NHYDout=["DRAIN5"], NHYDin=["D4-EX"], RDT=[1](min),
1637                        CHLGTH=[413.0](m), CHSLOPE=[0.16](%), FPSLOPE=[0.16](%),
1638                        SECNUM=[1], NSEG=[3]
1639                        ( SEGROUGH, SEGDIST (m))=[0.043,12.29 -0.033,17.97
1640                        0.043,32.84] NSEG times
1641                        ( DISTANCE (m), ELEVATION (m))=(-0.01, 2.50)
1642                        [0.00, 1.41]
1643                        [6.13, 0.97]
1644                        [12.29, 0.89]
1645                        [15.71, 0.00]
1646                        [17.97, 0.39]
1647                        [23.04, 0.35]
1648                        [32.83, 0.96]
1649                        (32.84, 2.50)
1650    *%--------------|-------------------------------------------------------------|
1651    CONTINUOUS NASHYD   NHYD=["D5"], DT=[1]min, AREA=[1.90](ha),
1652                        DWF=[0](cms), CN/C=[86], IA=[8.7](mm), N=[3], TP=[0.69]hrs,
1653                        Continuous simulation parameters:
1654                        IaRECper=[4](hrs),
1655                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
1656                        InterEventTime=[12](hrs)
1657                        Baseflow simulation parameters:
1658                        BaseFlowOption=[1] ,
1659                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
1660                        VHydCond=[0.055](mm/hr),    END=-1
1661    *%--------------|-------------------------------------------------------------|
1662    *EXTERNAL FLOWS SOUTHEAST OF THE SITE NORTH OF McKENNA CASEY DR.
1663    CONTINUOUS NASHYD   NHYD=["O-13SDF"], DT=[1]min, AREA=[9.74](ha),
1664                        DWF=[0](cms), CN/C=[81], IA=[4.0](mm), N=[3], TP=[.43]hrs,
1665                        Continuous simulation parameters:
1666                        IaRECper=[4](hrs),
1667                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
1668                        InterEventTime=[12](hrs)
1669                        Baseflow simulation parameters:
1670                        BaseFlowOption=[1] ,
1671                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
1672                        VHydCond=[0.055](mm/hr),    END=-1
1673    *%--------------|-------------------------------------------------------------|
1674    *SNOW DISPOSAL FACILITY
1675    *PARAMETERS BASED ON ROBINSON 2006 MODEL
1676    ROUTE RESERVOIR     NHYDout=["SDF"], NHYDin=["O-13SDF"], RDT=[1](min),
```

```
                                TABLE of ( OUTFLOW-STORAGE ) values
                                          (cms) - (ha-m)
                                        [0.000,0.000]
                                        [0.150,0.600]
                                        (0.200,1.500)
                                        [ -1 , -1 ] (max twenty pts)
                                        NHYDovf=["OVFSDF"]
*%----------------|-------------------------------------------------------------|
*ANALYSIS POINT 6 - McKenna Casey Dr.
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["PT6MC"], NHYDs to add=["DRAIN5"+"D5"+"SDF"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS NASHYD NHYD=["O-15"], DT=[1]min, AREA=[10.67](ha),
                  DWF=[0](cms), CN/C=[82], IA=[7.5](mm), N=[3], TP=[0.30]hrs,
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),
                  SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[12](hrs)
                  Baseflow simulation parameters:
                  BaseFlowOption=[1] ,
                  InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                  VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*TOTAL FLOW NORTH OF McKENNA CASEY DR.
ADD HYD           NHYDsum=["M-C"], NHYDs to add=["PT6MC"+"O-15"]
*%----------------|-------------------------------------------------------------|
*ROUTE FLOW THROUGH AREA O-14
* JFSA: Nov. 2020, added end points to close X-section
ROUTE CHANNEL     NHYDout=["O-14Ch"], NHYDin=["M-C"], RDT=[1](min),
                  CHLGTH=[845.3](m), CHSLOPE=[0.10](%), FPSLOPE=[0.10](%),
                  SECNUM=[1], NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=[0.06,15.00 -0.033,18.04 0.06,31.85] NSEG
                  times
                  ( DISTANCE (m), ELEVATION (m))=[-0.01, 2.5
                  (0.00, 1.53]
                  (5.56, 1.47)
                  (9.21, 1.45)
                  (12.45, 1.53)
                  (13.70, 1.50)
                  (15.00, 0.69)
                  (15.34, 0.00)
                  (16.51, 0.05)
                  (17.30, 0.17)
                  (18.04, 0.74)
                  (19.29, 1.32)
                  (22.73, 1.47)
                  (31.84, 1.41)
                  (31.85, 2.50)
*%----------------|-------------------------------------------------------------|
*%    -Change O-14 from NASHYD to STANDHYD, name it "S-1-Okeefe" and add it to S-1
subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -JFSA 2021-02-16, add detailed subcatchment drainage area for each subcatchment
in Corrigan sub-catchment. After adding part of  O-14 to S_1 sub-catchment so O-14
becomes 5 ha instead of 30.02 ha and TP becomes 0.133 (5*0.8/30.02) instead of 0.8
CONTINUOUS NASHYD NHYD=["O-14"], DT=[1]min, AREA=[5](ha),
                  DWF=[0](cms), CN/C=[82], IA=[7.5](mm), N=[3], TP=[0.133]hrs,
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),
                  SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[12](hrs)
                  Baseflow simulation parameters:
                  BaseFlowOption=[1] ,
                  InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                  VHydCond=[0.055](mm/hr),    END=-1
*
*%----------------|-------------------------------------------------------------|
```

```
*ANALYSIS POINT 7 - JOCK RIVER
* 2020-12-01 To Foster Drain
* 2020-12-01  replace ("PT7JR") by ("OKEEFE")
*%----------------|-------------------------------------------------------------|
ADD HYD            NHYDsum=["OKEEFE"], NHYDs to add=["O-14Ch"+"O-14"]
*%----------------|-------------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["OKEEFE"], DT=[1](min), AREA=[448](ha),
*                   XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                   SCS curve number CN=[77],
*                   Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                           LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                   Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                           LGI=[1728](m), MNI=[0.013], SCI=[0](min),
*                   Continuous simulation parameters:
*                   IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                   SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                   InterEventTime=[18](hrs),   END=-1
*#####################################################################
*#    Okeefe Pond
*#    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#      and a ratio of the catchment area to the West Clarke pond rating curve
*#      from the MSS for the next coordinates
*#####################################################################
*ROUTE RESERVOIR    NHYDout=["P_OKE"], NHYDin=["OKEEFE"],
*                   RDT=[1](min),
*                        TABLE of ( OUTFLOW-STORAGE ) values
*                                 (cms) - (ha-m)
*                                [   0.0  ,  0.0]
*                                [  14.13 , 13.0]
*                                [   -1   ,  -1 ]  (maximum one hundred pairs of points)
*                                NHYDovf=["ok-OVF"],
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-D2" and "S-1-D3" are part of S-1 sub-catchment. They are moved to drain before station 6215 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-D2"], DT=[1](min), AREA=[18.67](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
                   LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                   IAper=[4.67](mm), SLPP=[2.0](%),
                   LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                   IAimp=[1.57](mm), SLPI=[0.75](%),
                   LGI=[352.798](m), MNI=[0.013], SCI=[0](min),
                   Continuous simulation parameters:
                   IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                   SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                   InterEventTime=[12](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D2"], DT=[1]min, AREA=[18.67](ha),
*                   DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                   N=[3], TP=[1.120]hrs,
*                   Continuous simulation parameters:
*                   IaRECper=[4](hrs),
*                   SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                   InterEventTime=[12](hrs)
*                   Baseflow simulation parameters:
*                   BaseFlowOption=[1] ,
*                   InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                   VHydCond=[0.055](mm/hr),   END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["S-1-D2"], CINLET=[2.097](cms), NINLET=[1],
                    MajNHYD=["S-1-D2J"]
                    MinNHYD=["S-1-D2N"]
                    TMISTO=[9999999](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["S-1-D2S"], NHYDs to add=["S-1-D2J"+"S-1-D2N"]
*%----------------|-------------------------------------------------------------|
```

```
ROUTE RESERVOIR      NHYDout=["S-1-D2R"] ,NHYDin=["S-1-D2S"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.0      , 0.0 ]
                                    [ 0.2231, 0.7445 ]
                                    [    -1    ,   -1     ]  (max twenty pts)
                           NHYDovf=["S-1-D2Rovf"]
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D3"], DT=[1](min), AREA=[6.79](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                     LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                     IAper=[4.67](mm), SLPP=[2.0](%),
                     LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                     IAimp=[1.57](mm), SLPI=[0.75](%),
                     LGI=[212.760](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs), IaRECimp=[4](hrs),
                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs),    END=-1
*%-----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D3"], DT=[1]min, AREA=[6.79](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.281]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["S-1-D3"], CINLET=[0.831](cms), NINLET=[1],
                     MajNHYD=["S-1-D3J"]
                     MinNHYD=["S-1-D3N"]
                     TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["S-1-D3S"], NHYDs to add=["S-1-D3J"+"S-1-D3N"]
*%-----------------|-------------------------------------------------------------|
ROUTE RESERVOIR      NHYDout=["S-1-D3R"] ,NHYDin=["S-1-D3S"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [ 0.0      , 0.0 ]
                                    [ 0.0811, 0.2708 ]
                                    [    -1    ,   -1     ]  (max twenty pts)
                           NHYDovf=["S-1-D3Rovf"]
*%-----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["SN_OK"], NHYDs to
add=["N_OK"+"OKEEFE"+"S-1-D2R"+"S-1-D3R"+"S-1-D2Rovf"+"S-1-D3Rovf"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["SN_OK"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Okeefe Drain"]
*%-----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Node Okeefe routed to Node at Foster Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
*#
ROUTE CHANNEL        NHYDout=["N_FO"] ,NHYDin=["SN_OK"] ,
                     RDT=[1](min),
                     CHLGTH=[1183](m),   CHSLOPE=[0.0761](%),
                                         FPSLOPE=[0.0761](%),
                     SECNUM=[1.0],          NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.050,-33.89
```

```
                        -0.035,31.59
                        0.050,34.41] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-794.18, 91.00]
                    [-775.41, 91.50]
                    [-702.63, 91.50]
                    [-546.19, 91.50]
                    [-529.54, 91.50]
                    [-323.44, 91.00]
                    [-320.71, 91.00]
                    [-183.59, 91.00]
                    [-182.54, 90.50]
                    [-181.36, 90.00]
                    [-177.37, 90.00]
                    [-87.70, 90.00]
                    [-33.89, 90.00]
                    [-18.52, 86.88]
                    [0.00,85.20]
                    [16.20, 86.83]
                    [31.59, 90.00]
                    [33.03, 90.50]
                    [34.41, 91.00]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#    Catchment FOSTER
*#    - To Foster ditch (north of the Jock)
*#    - Partially developed (medium density); remaining agricultural
*#    - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
*#    - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (513.02 HA) so the total drainage area remains the same
*#    - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
*#################################################################################
CONTINUOUS STANDHYD NHYD=["FOSTER"], DT=[1]min, AREA=[325.44](ha),
                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[74],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[1472.956](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*#################################################################################
*#    Foster Pond
*#    - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
*#      and a ratio of the catchment area to the West Clarke pond rating curve
*#      from the MSS for the next coordinates
*#################################################################################
ROUTE RESERVOIR     NHYDout=["P_FOS"],  NHYDin=["FOSTER"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                [   0.0 ,  0.0 ]
                                [   10.34 , 10]
                                [   -1  ,  -1  ]  (max twenty pts)
                          NHYDovf=["FO-OVF"]
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["FOSTER-OUT"], NHYDs to add=["P_FOS"+"FO-OVF"]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*    -Brazeau area from P 1800-19 =[71.751], change to 63.59 ha based on GIS measurements
*     -JFSA, 2021-01-19  update "W_CLAR_BRAZ" to 73.29 ha based on GIS measurements
*     -JFSA, 2021-01-22  Brazeau ("MS_P10"+"P10-OVF")brazeau pond discharges directly
```

```
to the jock river through a road side ditch on the west side of Borrisokane road
(station 6016)
CONTINUOUS STANDHYD NHYD=["W_CLAR_BRAZ"], DT=[1]min, AREA=[73.29](ha),
                    XIMP=[0.6], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[699.00](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------|
* 2020-12-01 correct pond curve values
ROUTE RESERVOIR     NHYDout=["MS_P10"],  NHYDin=["W_CLAR_BRAZ"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,   0.0 ]
                                  [ 0.068 , 0.001 ]
                                  [ 0.271 , 0.022 ]
                                  [ 0.379 , 0.051 ]
                                  [ 0.48 , 0.091 ]
                                  [ 0.853 , 0.341 ]
                                  [ 1.005 , 0.61 ]
                                  [ 1.128 , 1.231 ]
                                  [ 1.155 , 1.592 ]
                                  [ 1.194 , 1.876 ]
                                  [ 1.2 , 1.921 ]
                                  [ 1.259 , 2.369 ]
                                  [ 1.3 , 2.665 ]
                                  [ 1.349 , 2.813 ]
                                  [   -1 ,   -1 ]  (max twenty pts)
                          NHYDovf=["P10-OVF"]
*%----------------|-------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D2" is a part of S-1 sub-catchment. It is moved to drain
before station 980 on Foster Drain
CONTINUOUS STANDHYD NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[74],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[181.475](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),   END=-1
*%----------------|-------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["S-1-FO-D2"], CINLET=[0.508](cms), NINLET=[1],
                    MajNHYD=["S-1-FO-D2J"]
                    MinNHYD=["S-1-FO-D2N"]
                    TMISTO=[9999999](cu-m)
```

```
*%----------------|---------------------------------------------------------------|
ADD HYD           NHYDsum=["S-1-FO-D2S"], NHYDs to add=["S-1-FO-D2J"+"S-1-FO-D2N"]
*%----------------|---------------------------------------------------------------|
ROUTE RESERVOIR   NHYDout=["S-1-FO-D2R"] ,NHYDin=["S-1-FO-D2S"] ,
                  RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [ 0.0     , 0.0 ]
                                [ 0.0590, 0.1970 ]
                                [    -1   ,  -1    ]  (max twenty pts)
                        NHYDovf=["S-1FOD2ovf"]
*%----------------|---------------------------------------------------------------|
ADD HYD           NHYDsum=["980"], NHYDs to
add=["FOSTER-OUT"+"S-1-FO-D2R"+"S-1FOD2ovf"]
*%----------------|---------------------------------------------------------------|
SAVE HYD          NHYD=["980"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at Station 980 on Foster Drain"]
*%----------------|---------------------------------------------------------------|
*#
*# Hydrograph from Node Foster SWM (Station 980) to Node at station 520
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 980
*#
ROUTE CHANNEL     NHYDout=["980-out"] ,NHYDin=["980"] ,
                  RDT=[1](min),
                  CHLGTH=[460](m),  CHSLOPE=[0.04348](%),
                                      FPSLOPE=[0.04348](%),
                  SECNUM=[1.0],       NSEG=[3]
                  ( SEGROUGH, SEGDIST (m))=
                    [0.050,45.90
                    -0.035,53.30
                    0.050,100] NSEG times
                  ( DISTANCE (m), ELEVATION (m))=
                  [0, 91.75 ]
                  [42.4, 92.18 ]
                  [43.5, 92.16 ]
                  [44.1, 92.1 ]
                  [44.6, 92 ]
                  [44.8, 91.86 ]
                  [45.9, 91.04 ]
                  [46.4, 90.65 ]
                  [46.8, 90.36 ]
                  [47.9, 90.32 ]
                  [48.7, 90.35 ]
                  [50.7, 90.33 ]
                  [52.2, 90.38 ]
                  [52.5, 90.59 ]
                  [53.3, 91.28 ]
                  [54, 91.83 ]
                  [54.3, 92 ]
                  [54.8, 92.08 ]
                  [55.4, 92.12 ]
                  [100, 91.84 ]
*%----------------|---------------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D1" is a part of S-1 sub-catchment. It is moved to drain
before station 520 on Foster Drain
CONTINUOUS STANDHYD NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
                  XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[74],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                          LGI=[184.572](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),   END=-1
```

```
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["S-1-FO-D1"], CINLET=[0.605](cms), NINLET=[1],
                    MajNHYD=["S-1-FO-D1J"]
                    MinNHYD=["S-1-FO-D1N"]
                    TMISTO=[9999999](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["S-1-FO-D1S"], NHYDs to add=["S-1-FO-D1N"+"S-1-FO-D1J"]
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["S-1-FO-D1R"] ,NHYDin=["S-1-FO-D1S"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                (cms) - (ha-m)
                              [ 0.0     , 0.0 ]
                              [ 0.0611, 0.2038 ]
                              [    -1   ,  -1    ] (max twenty pts)
                          NHYDovf=["S-1FOD1ovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["520"], NHYDs to add=["980-out"+"S-1-FO-D1R"+"S-1FOD1ovf"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["520"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Sation 520 on Foster Drain"]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock
River)
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 520
*#
ROUTE CHANNEL       NHYDout=["520-out"] ,NHYDin=["520"] ,
                    RDT=[1](min),
                    CHLGTH=[860](m),   CHSLOPE=[0.5872](%),
                                       FPSLOPE=[0.5872](%),
                    SECNUM=[1.0],         NSEG=[3]
                    ( SEGROUGH, SEGDIST (m))=
                      [0.050,45.90
                      -0.035,54.3
                      0.050,100.1097] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [0, 91.26 ]
                    [44.9, 91.46 ]
                    [45.1, 91.37 ]
                    [45.9, 90.84 ]
                    [47, 90.32 ]
                    [47.5, 90.22 ]
                    [48, 90.17 ]
                    [50.7, 90.19 ]
                    [51.5, 90.17 ]
                    [52.2, 90.13 ]
                    [52.7, 90.12 ]
                    [53.3, 90.14 ]
                    [53.5, 90.31 ]
                    [53.9, 90.59 ]
                    [54.3, 90.87 ]
                    [54.7, 91.04 ]
                    [55.3, 91.24 ]
                    [55.5, 91.26 ]
                    [63.7, 91.37 ]
                    [100.1097, 91.43 ]
*%----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-26 "S-1-FO-F-D" is a part of S-1 sub-catchment. It is moved to drain
before station 6016 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[74],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
                            LGI=[315.806](m), MNI=[0.013], SCI=[0](min),
```

```
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.007]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["S-1-FO-F-D"], CINLET=[1.615](cms), NINLET=[1],
                    MajNHYD=["S-1FO-F-DJ"]
                    MinNHYD=["S-1FO-F-DN"]
                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["S-1FO-F-DS"], NHYDs to add=["S-1FO-F-DJ"+"S-1FO-F-DN"]
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["S-1FO-F-DR"] ,NHYDin=["S-1FO-F-DS"] ,
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                   [ 0.0      , 0.0 ]
                                   [ 0.1788, 0.5966 ]
                                   [    -1    , -1    ]  (max twenty pts)
                          NHYDovf=["S-1FoFDovf"]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-D8" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
CONTINUOUS STANDHYD NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha), XIMP=[0.325], TIMP=[0.65], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious  areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.785](mm), SLPI=[0.75](%),
                    LGI=[187.439](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["S-1-D8"], CINLET=[0.672](cms), NINLET=[1],
                    MajNHYD=["S-1-D8J"]
                    MinNHYD=["S-1-D8N"]
                    TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["S-1-D8S"], NHYDs to add=["S-1-D8J"+"S-1-D8N"]
*%----------------|---------------------------------------------------------|
```

```
*ADD HYD              NHYDsum=["S-1-D"], NHYDs to add=["S-1-Okeefe"+"S-1"+"S-1-Fost"]
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-D"], CINLET=[11.616](cms), NINLET=[1],
*                    MajNHYD=["S-1-D-MJ"]
*                    MinNHYD=["S-1-D-MN"]
*                    TMJSTO=[5974](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-DEV"], NHYDs to add=["S-1-D-MJ"+"S-1-D-MN"]
*%----------------|---------------------------------------------------------|
ROUTE RESERVOIR      NHYDout=["S-1-D8R"] ,NHYDin=["S-1-D8S"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                 (cms) - (ha-m)
                              [ 0.0      , 0.0 ]
                              [ 0.0630, 0.2102 ]
                              [    -1    , -1    ]  (max twenty pts)
                           NHYDovf=["S-1-D8Rovf"]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-A" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
CONTINUOUS NASHYD    NHYD=["S-1-A"], DT=[1]min, AREA=[75.88](ha),
                     DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                     N=[3], TP=[0.619]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*    -JFSA, 2021-01-22  "W_CLAR_UNDE" (west of Clarke sub-catchment) discharges directly to the jock river through a road side ditch on the west side of Borrisokane road (station 6016)
CONTINUOUS NASHYD    NHYD=["W_CLAR_UNDE"], DT=[1]min, AREA=[35.65](ha),
                     DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                     N=[3], TP=[1.10]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD              NHYDsum=["SN_FO"], NHYDs to add=["N_FO"+"520-out"+"MS_P10"+"P10-OVF"+"W_CLAR_UNDE"+"S-1FoFDovf"+"S-1FO-F-DR"+"S-1-D8Rovf"+"S-1-D8R"+"S-1-A"]
*%----------------|---------------------------------------------------------|
SAVE HYD             NHYD=["SN_FO"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Foster Drain"]
*%----------------|---------------------------------------------------------|
*# Hydrograph from Node Foster routed to Node at Cedarview Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
*#
ROUTE CHANNEL        NHYDout=["N_CE"] ,NHYDin=["SN_FO"] ,
                     RDT=[1](min),
                     CHLGTH=[159](m),   CHSLOPE=[0.0818](%),
                                        FPSLOPE=[0.0818](%),
                     SECNUM=[1.0],         NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.050, -15.46
                       -0.035, 26.55
                       0.050, 116.76] NSEG times
```

```
                        ( DISTANCE (m), ELEVATION (m))=
                        [-645.23,  91.50]
                        [-391.20,  91.50]
                        [-91.00,  91.50]
                        [-85.52,  91.50]
                        [-15.46,  89.40]
                        [-9.79,  89.31]
                        [-3.22,  86.24]
                        [3.22,  85.07]
                        [10.96,  85.79]
                        [16.44,  86.49]
                        [26.55,  89.45]
                        [29.03,  90.27]
                        [35.76,  90.67]
                        [36.67,  91.00]
                        [108.08,  91.00]
                        [109.82,  90.50]
                        [112.04,  90.50]
                        [114.62,  91.00]
                        [116.76,  91.50]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#    Catchment S-1
*#    - To Jock River (north and south of Jock)
*#    - Primarily agricultural fields; portion of sand quarry
*%----------------|---------------------------------------------------------------|
*%    -2020-12-17 "S-1-Undev" and "S-1-Fost" was a part of Foster drain, they are below the foster pond. Now they are added to S-1 subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -2020-12-17 Change O-14 (it was part of Okeefe drain) to "S-1-Okeefe" and add it to S-1 subcatchment based on Project 1474-BCDC, JFSA, Nov. 2020
*%    -2020-12-17 Add "S-1-BCDC" as NASHYD
*%    -2020-12-17 all other S-1 subcatchment as STANDHYD with DUALHYD and ROUTE RESERVOIR
*%----------------|---------------------------------------------------------------|
*#################################################################################
*   -JFSA 2021-02-26  "S-1-A" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*CONTINUOUS NASHYD   NHYD=["S-1-A"], DT=[1]min, AREA=[75.88](ha),
*                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
*                    N=[3], TP=[0.619]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["S-1-B"], DT=[1]min, AREA=[55.36](ha),
                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
                    N=[3], TP=[0.451]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------------|
*#    -  JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B. Change their TP values based on the new areas compared to the old ones.
*CONTINUOUS NASHYD   NHYD=["S-1-BCDC"], DT=[1]min, AREA=[134.9](ha),
*                    DWF=[0](cms), CN/C=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
```

```
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*#    -  JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and "S-1-BCDC-2" is part of "S-1-D2" and "S-1-D3"
*CONTINUOUS NASHYD   NHYD=["S-1-BCDC-1"], DT=[1]min, AREA=[0.3](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-BCDC-2"], DT=[1]min, AREA=[1.3](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*#    -  JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
*CONTINUOUS NASHYD   NHYD=["S-1-BCDC-3"], DT=[1]min, AREA=[3.9](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-Okeefe" is a part of S-1 sub-catchment. It is moved to drain before station 7245 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-Okeefe"], DT=[1](min), AREA=[44.93](ha), XIMP=[0.65], TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces: IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[547.296](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),    END=-1
*%-----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-Okeefe"], CINLET=[4.796](cms), NINLET=[1],
*                       MajNHYD=["S-1-OkMJ"]
*                       MinNHYD=["S-1-OkMN"]
```

```
*                       TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-OkS"], NHYDs to add=["S-1-OkMJ"+"S-1-OkMN"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-OkSR"] ,NHYDin=["S-1-OkS"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                     [ 0.0     , 0.0 ]
*                                     [ 0.5370, 1.7917 ]
*                                     [    -1   ,  -1    ]  (max twenty pts)
*                             NHYDovf=["S-1-OkSovf"]
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD       NHYD=["S-1-Okeefe"], DT=[1]min, AREA=[44.93](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.049]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D1" is a part of S-1 sub-catchment. It is moved to drain before station 520 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
*                       XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[74],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                               LGI=[184.572](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD         NHYDin=["S-1-FO-D1"], CINLET=[0.605](cms), NINLET=[1],
*                       MajNHYD=["S-1-FO-D1J"]
*                       MinNHYD=["S-1-FO-D1N"]
*                       TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-FO-D1S"], NHYDs to add=["S-1-FO-D1N"+"S-1-FO-D1J"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-FO-D1R"] ,NHYDin=["S-1-FO-D1S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                       (cms) - (ha-m)
*                                     [ 0.0     , 0.0 ]
*                                     [ 0.0611, 0.2038 ]
*                                     [    -1   ,  -1    ]  (max twenty pts)
*                             NHYDovf=["S-1FOD1ovf"]
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD       NHYD=["S-1-FO-D1"], DT=[1]min, AREA=[5.11](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
```

```
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-D2" is a part of S-1 sub-catchment. It is moved to drain before station 980 on Foster Drain
*CONTINUOUS STANDHYD NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[74],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                            LGI=[181.475](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-D2"], DT=[1]min, AREA=[4.94](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["S-1-FO-D2"], CINLET=[0.508](cms), NINLET=[1],
*                    MajNHYD=["S-1-FO-D2J"]
*                    MinNHYD=["S-1-FO-D2N"]
*                    TMSTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD             NHYDsum=["S-1-FO-D2S"], NHYDs to add=["S-1-FO-D2J"+"S-1-FO-D2N"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR     NHYDout=["S-1-FO-D2R"] ,NHYDin=["S-1-FO-D2S"] ,
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                     (cms) - (ha-m)
*                                [ 0.0     , 0.0 ]
*                                [ 0.0590, 0.1970 ]
*                                [    -1   ,  -1    ]  (max twenty pts)
*                          NHYDovf=["S-1FOD2ovf"]
*%----------------|---------------------------------------------------------|
*   -JFSA 2021-02-26  "S-1-FO-F-D" is a part of S-1 sub-catchment. It is moved to drain before station 6016 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[74],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[0.5](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[0.5](%),
*                            LGI=[315.806](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["S-1-FO-F-D"], DT=[1]min, AREA=[14.96](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.007]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
```

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*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-FO-F-D"], CINLET=[1.749](cms), NINLET=[1],
*                       MajNHYD=["S-1FO-F-DJ"]
*                       MinNHYD=["S-1FO-F-DN"]
*                       TMISTO=[9999999](cu-m)
*%----------------|------------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1FO-F-DS"], NHYDs to add=["S-1FO-F-DJ"+"S-1FO-F-DN"]
*%----------------|------------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1FO-F-DR"] ,NHYDin=["S-1FO-F-DS"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [ 0.0     , 0.0 ]
*                                    [ 0.1788, 0.5966 ]
*                                    [    -1   ,   -1    ]  (max twenty pts)
*                             NHYDovf=["S-1FoFDovf"]
*%----------------|------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D1"], DT=[1](min), AREA=[21.67](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                      LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                      IAper=[4.67](mm), SLPP=[2.0](%),
                      LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                      IAimp=[1.57](mm), SLPI=[0.75](%),
                      LGI=[380.088](m), MNI=[0.013], SCI=[0](min),
                      Continuous simulation parameters:
                      IaRECper=[4](hrs), IaRECimp=[4](hrs),
                      SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                      InterEventTime=[12](hrs),    END=-1
*%----------------|------------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-D1"], DT=[1]min, AREA=[21.67](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.066]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|------------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["S-1-D1"], CINLET=[2.409](cms), NINLET=[1],
                      MajNHYD=["S-1-D1J"]
                      MinNHYD=["S-1-D1N"]
                      TMISTO=[9999999](cu-m)
*%----------------|------------------------------------------------------------|
ADD HYD              NHYDsum=["S-1-D1S"], NHYDs to add=["S-1-D1J"+"S-1-D1N"]
*%----------------|------------------------------------------------------------|
ROUTE RESERVOIR      NHYDout=["S-1-D1R"] ,NHYDin=["S-1-D1S"] ,
                      RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                     (cms) - (ha-m)
                                   [ 0.0     , 0.0 ]
                                   [ 0.2590, 0.8642 ]
                                   [    -1   ,   -1    ]  (max twenty pts)
                            NHYDovf=["S-1-D1Rovf"]
*%----------------|------------------------------------------------------------|
*   -JFSA 2021-02-25  "S-1-D2" and "S-1-D3" are part of S-1 sub-catchment. They are
moved to drain before station 6215 on Jock River
*CONTINUOUS STANDHYD NHYD=["S-1-D2"], DT=[1](min), AREA=[18.67](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                     LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
*                     LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
```

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IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[352.798](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),   END=-1
*%-----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-D2"], DT=[1]min, AREA=[18.67](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.120]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D2"], CINLET=[2.062](cms), NINLET=[1],
*                       MajNHYD=["S-1-D2J"]
*                       MinNHYD=["S-1-D2N"]
*                       TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D2S"], NHYDs to add=["S-1-D2J"+"S-1-D2N"]
*%-----------------|-------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["S-1-D2R"] ,NHYDin=["S-1-D2S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                        (cms) - (ha-m)
*                                      [ 0.0      , 0.0 ]
*                                      [ 0.2231, 0.7445 ]
*                                      [    -1    ,  -1     ]  (max twenty pts)
*                             NHYDovf=["S-1-D2Rovf"]
*%-----------------|-------------------------------------------------------|
*CONTINUOUS STANDHYD NHYD=["S-1-D3"], DT=[1](min), AREA=[6.79](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
*                       LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
IAper=[4.67](mm), SLPP=[2.0](%),
*                       LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
IAimp=[1.57](mm), SLPI=[0.75](%),
*                       LGI=[212.760](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs),   END=-1
*%-----------------|-------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-D3"], DT=[1]min, AREA=[6.79](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.281]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),   END=-1
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["S-1-D3"], CINLET=[0.719](cms), NINLET=[1],
*                       MajNHYD=["S-1-D3J"]
*                       MinNHYD=["S-1-D3N"]
*                       TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------|
*ADD HYD              NHYDsum=["S-1-D3S"], NHYDs to add=["S-1-D3J"+"S-1-D3N"]
*%-----------------|-------------------------------------------------------|
```

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*ROUTE RESERVOIR      NHYDout=["S-1-D3R"] ,NHYDin=["S-1-D3S"] ,
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [ 0.0      , 0.0 ]
*                                    [ 0.0811, 0.2708 ]
*                                    [    -1    , -1     ]  (max twenty pts)
*                           NHYDovf=["S-1-D3Rovf"]
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D4"], DT=[1](min), AREA=[3.28](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                     LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                     IAper=[4.67](mm), SLPP=[2.0](%),
                     LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                     IAimp=[1.57](mm), SLPI=[0.75](%),
                     LGI=[147.874](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs), IaRECimp=[4](hrs),
                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs),    END=-1
*%-----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-D4"], DT=[1]min, AREA=[3.28](ha),
*                     DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                     N=[3], TP=[1.10]hrs,
*                     Continuous simulation parameters:
*                     IaRECper=[4](hrs),
*                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
*                     InterEventTime=[12](hrs)
*                     Baseflow simulation parameters:
*                     BaseFlowOption=[1] ,
*                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                     VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|-------------------------------------------------------------|
COMPUTE DUALHYD       NHYDin=["S-1-D4"], CINLET=[0.421](cms), NINLET=[1],
                      MajNHYD=["S-1-D4J"]
                      MinNHYD=["S-1-D4N"]
                      TMISTO=[9999999](cu-m)
*%-----------------|-------------------------------------------------------------|
ADD HYD               NHYDsum=["S-1-D4S"], NHYDs to add=["S-1-D4J"+"S-1-D4N"]
*%-----------------|-------------------------------------------------------------|
ROUTE RESERVOIR       NHYDout=["S-1-D4R"] ,NHYDin=["S-1-D4S"] ,
                      RDT=[1](min),
                            TABLE of ( OUTFLOW-STORAGE ) values
                                       (cms) - (ha-m)
                                     [ 0.0      , 0.0 ]
                                     [ 0.0392, 0.1308 ]
                                     [    -1    , -1     ]  (max twenty pts)
                            NHYDovf=["S-1-D4Rovf"]
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D5"], DT=[1](min), AREA=[12.84](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                     LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                     IAper=[4.67](mm), SLPP=[2.0](%),
                     LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                     IAimp=[1.57](mm), SLPI=[0.75](%),
                     LGI=[292.57](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs), IaRECimp=[4](hrs),
                     SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs),    END=-1
*%-----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD    NHYD=["S-1-D5"], DT=[1]min, AREA=[12.84](ha),
*                     DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                     N=[3], TP=[1.10]hrs,
*                     Continuous simulation parameters:
*                     IaRECper=[4](hrs),
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*                       SMIN=[-1](mm),   SMAX=[-1](mm),  SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["S-1-D5"], CINLET=[1.5](cms), NINLET=[1],
                        MajNHYD=["S-1-D5J"]
                        MinNHYD=["S-1-D5N"]
                        TMISTO=[9999999](cu-m)
*%-----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["S-1-D5S"], NHYDs to add=["S-1-D5J"+"S-1-D5N"]
*%-----------------|---------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["S-1-D5R"] ,NHYDin=["S-1-D5S"] ,
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [ 0.0       , 0.0 ]
                                    [ 0.1535,  0.5120 ]
                                    [     -1    ,   -1      ]  (max twenty pts)
                              NHYDovf=["S-1-D5Rovf"]
*%-----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D6"], DT=[1](min), AREA=[1.75](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                        LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
                        IAper=[4.67](mm), SLPP=[2.0](%),
                        LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                        IAimp=[1.57](mm), SLPI=[0.75](%),
                        LGI=[108.01](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs),    END=-1
*%-----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD       NHYD=["S-1-D6"], DT=[1]min, AREA=[1.75](ha),
*                       DWF=[0](cms), CN/C=[77],   IA=[4.67](mm),
*                       N=[3],  TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm),  GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%-----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["S-1-D6"], CINLET=[0.232](cms), NINLET=[1],
                        MajNHYD=["S-1-D6J"]
                        MinNHYD=["S-1-D6N"]
                        TMISTO=[9999999](cu-m)
*%-----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["S-1-D6S"], NHYDs to add=["S-1-D6J"+"S-1-D6N"]
*%-----------------|---------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["S-1-D6R"] ,NHYDin=["S-1-D6S"] ,
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [ 0.0       , 0.0 ]
                                    [ 0.0209,  0.0698 ]
                                    [     -1    ,   -1      ]  (max twenty pts)
                              NHYDovf=["S-1-D6Rovf"]
*%-----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S-1-D7"], DT=[1](min), AREA=[2.03](ha), XIMP=[0.65],
TIMP=[0.65], DWF=[0](cms),
                        LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
```

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                        IAper=[4.67](mm), SLPP=[2.0](%),
2731                    LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
                        IAimp=[1.57](mm), SLPI=[0.75](%),
2732                    LGI=[116.33](m), MNI=[0.013], SCI=[0](min),
2733                    Continuous simulation parameters:
2734                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
2735                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
2736                    InterEventTime=[12](hrs), END=-1
2737    *%---------------|-------------------------------------------------------------|
2738    *CONTINUOUS NASHYD  NHYD=["S-1-D7"], DT=[1]min, AREA=[2.03](ha),
2739    *                   DWF=[0](cms), CNVC=[77], IA=[4.67](mm),
2740    *                   N=[3], TP=[1.10]hrs,
2741    *                   Continuous simulation parameters:
2742    *                   IaRECper=[4](hrs),
2743    *                   SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
2744    *                   InterEventTime=[12](hrs)
2745    *                   Baseflow simulation parameters:
2746    *                   BaseFlowOption=[1] ,
2747    *                   InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
2748    *                   VHydCond=[0.055](mm/hr), END=-1
2749    *%---------------|-------------------------------------------------------------|
2750    COMPUTE DUALHYD     NHYDin=["S-1-D7"], CINLET=[0.265](cms), NINLET=[1],
2751                        MajNHYD=["S-1-D7J"]
2752                        MinNHYD=["S-1-D7N"]
2753                        TMISTO=[9999999](cu-m)
2754    *%---------------|-------------------------------------------------------------|
2755    ADD HYD             NHYDsum=["S-1-D7S"], NHYDs to add=["S-1-D7J"+"S-1-D7N"]
2756    *%---------------|-------------------------------------------------------------|
2757    ROUTE RESERVOIR     NHYDout=["S-1-D7R"] ,NHYDin=["S-1-D7S"] ,
2758                        RDT=[1](min),
2759                              TABLE of ( OUTFLOW-STORAGE ) values
2760                                       (cms) - (ha-m)
2761                                    [ 0.0     , 0.0 ]
2762                                    [ 0.0243, 0.0810 ]
2763                                    [    -1   ,   -1    ]  (max twenty pts)
2764                              NHYDovf=["S-1-D7Rovf"]
2765    *%---------------|-------------------------------------------------------------|
2766    *   -JFSA 2021-02-26  "S-1-D8" is a part of S-1 sub-catchment. It is moved to drain
    before station 6016 on Jock River
2767    *CONTINUOUS STANDHYD NHYD=["S-1-D8"], DT=[1](min), AREA=[5.27](ha), XIMP=[0.65],
    TIMP=[0.65], DWF=[0](cms),
2768    *                   LOSS=[2], SCS curve number CN=[75], Pervious surfaces:
    IAper=[4.67](mm), SLPP=[2.0](%),
2769    *                   LGP=[40](m), MNP=[0.25], SCP=[0](min), Impervious surfaces:
    IAimp=[1.57](mm), SLPI=[0.75](%),
2770    *                   LGI=[187.439](m), MNI=[0.013], SCI=[0](min),
2771    *                   Continuous simulation parameters:
2772    *                   IaRECper=[4](hrs), IaRECimp=[4](hrs),
2773    *                   SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
2774    *                   InterEventTime=[12](hrs), END=-1
2775    *%---------------|-------------------------------------------------------------|
2776    *CONTINUOUS NASHYD  NHYD=["S-1-D8"], DT=[1]min, AREA=[5.27](ha),
2777    *                   DWF=[0](cms), CNVC=[77], IA=[4.67](mm),
2778    *                   N=[3], TP=[1.10]hrs,
2779    *                   Continuous simulation parameters:
2780    *                   IaRECper=[4](hrs),
2781    *                   SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
2782    *                   InterEventTime=[12](hrs)
2783    *                   Baseflow simulation parameters:
2784    *                   BaseFlowOption=[1] ,
2785    *                   InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
2786    *                   VHydCond=[0.055](mm/hr), END=-1
2787    *%---------------|-------------------------------------------------------------|
2788    *COMPUTE DUALHYD     NHYDin=["S-1-D8"], CINLET=[2.279](cms), NINLET=[1],
2789    *                   MajNHYD=["S-1-D8J"]
2790    *                   MinNHYD=["S-1-D8N"]
```

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*                       TMISTO=[9999999](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-D8S"], NHYDs to add=["S-1-D8J"+"S-1-D8N"]
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-D"], NHYDs to add=["S-1-Okeefe"+"S-1"+"S-1-Fost"]
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["S-1-D"], CINLET=[11.616](cms), NINLET=[1],
*                       MajNHYD=["S-1-D-MJ"]
*                       MinNHYD=["S-1-D-MN"]
*                       TMISTO=[5974](cu-m)
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["S-1-DEV"], NHYDs to add=["S-1-D-MJ"+"S-1-D-MN"]
*%----------------|---------------------------------------------------------|
*ROUTE RESERVOIR        NHYDout=["S-1-D8R"] ,NHYDin=["S-1-D8S"] ,
*                       RDT=[1](min),
*                             TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [ 0.0     , 0.0 ]
*                                    [ 0.0630, 0.2102 ]
*                                    [    -1   ,  -1    ]  (max twenty pts)
*                             NHYDovf=["S-1-D8Rovf"]
*%----------------|---------------------------------------------------------|
*%----------------|---------------------------------------------------------|
*       -JFSA 2021-02-08 Clarke (MS_P2 and P2-OVF) and Clarke Undeveloped area (W_CLAR_UNDE) drain to Jock River at Station 5002 instead of Station 4534
*#    Catchment W_CLAR
*#    - To West Clarke Drain (south of the Jock)
*#    - Subdivision with 43% imp. as per Barrhaven South MSS
*#    - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)-11
*#    - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL
*#*********************************************************************
CONTINUOUS STANDHYD NHYD=["W_CLAR_MJ"], DT=[1]min, AREA=[1.772](ha),
                    XIMP=[0.46], TIMP=[0.59], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[109](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["W_CLAR_MJ"], CINLET=[0.213](cms), NINLET=[1],
*                       MajNHYD=["W_CLAR_MJj"]
*                       MinNHYD=["W_CLAR_MJn"]
*                       TMISTO=[0.1](cu-m)
*%----------------|---------------------------------------------------------|
*# 5-Year + 12% Capture
ROUTE RESERVOIR         NHYDout=["W_CLAR_MJn"] ,NHYDin=["W_CLAR_MJ"] ,
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                       (cms) - (ha-m)
                                     [ 0.0     , 0.0 ]
                                     [ 0.213 , 0.0001 ]
                                     [    -1   ,  -1    ]  (max twenty pts)
                              NHYDovf=["W_CLAR_MJj"] ,
*%----------------|---------------------------------------------------------|
*     -Clarke_All area from P 598(04)-11 = 120.207 ha, change to 127.298 ha based on GIS measurements,
*     -JFSA, 2021-01-19  update W_CLAR_ALL to (121.17-1.772=119.398) ha based on GIS measurements W_CLAR is 121.17 ha and W_CLAR_MJ is 1.772 ha
CONTINUOUS STANDHYD NHYD=["W_CLAR_ALL"], DT=[1]min, AREA=[119.398](ha),
                    XIMP=[0.60], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
```

```
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[892.18](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["W_CLAR"], NHYDs to add=["W_CLAR_ALL"+"W_CLAR_Mj"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["W_CLAR"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows to West Clarke"]
*#*************************************************************************
*#    West Clarke Pond 2
*#    - Rating curve obtained from Barrhaven South MSS modeling
*#    - Tributary Drainage Area to MSS Pond 2 = 241 ha
*#*************************************************************************
ROUTE RESERVOIR     NHYDout=["MS_P2"],  NHYDin=["W_CLAR"],
                    RDT=[1](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,  0.0 ]
                                  [ 0.128 , 0.161 ]
                                  [ 0.138 , 0.409 ]
                                  [ 0.148 , 0.68 ]
                                  [ 0.227 , 0.931 ]
                                  [ 0.354 , 1.223 ]
                                  [ 0.505 , 1.52 ]
                                  [ 0.666 , 1.821 ]
                                  [ 0.831 , 2.123 ]
                                  [ 0.995 , 2.434 ]
                                  [ 1.069 , 2.583 ]
                                  [ 1.51 , 2.647 ]
                                  [ 4.904 , 2.861 ]
                                  [ 13.048 , 3.188 ]
                                  [ 23.745 , 3.523 ]
                                  [ 36.474 , 3.871 ]
                                  [ 45.938 , 4.127 ]
                                  [ 61.652 , 4.539 ]
                                  [   -1 ,  -1  ] (max twenty pts)
                          NHYDovf=["P2-OVF"]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
*     -JFSA, 2021-01-22  "W_CLAR_UNDE" (west of Clarke sub-catchment) discharges
directly to the jock river through a road side ditch on the west side of Borrisokane
road (station 6016)
*CONTINUOUS NASHYD   NHYD=["W_CLAR_UNDE"], DT=[1]min, AREA=[35.65](ha),
*                    DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                    N=[3], TP=[1.10]hrs,
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[12](hrs)
*                    Baseflow simulation parameters:
*                    BaseFlowOption=[1] ,
*                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                    VHydCond=[0.055](mm/hr),   END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_CE"], NHYDs to
add=["N_CE"+"S-1-D4R"+"S-1-D5R"+"S-1-D4Rovf"+"S-1-D5Rovf"+"MS_P2"+"P2-OVF"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["SN_CE"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows before Station 5737 on Jock River"]
*%----------------|-------------------------------------------------------------|
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
```

```
*# 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model
T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\HEC-RAS\JockLidar2005
*# JFSA 2021-03-02  change the slope to 0.0175% instead of 0.02593 to stabilize the model
ROUTE CHANNEL         NHYDout=["5737"] ,NHYDin=["SN_CE"] ,
                      RDT=[1](min),
                      CHLGTH=[270](m),   CHSLOPE=[0.0175](%),
                                           FPSLOPE=[0.0175](%),
                      SECNUM=[1.0],         NSEG=[3]
                      ( SEGROUGH, SEGDIST(m))=
                        [0.050,-24.04
                        -0.035,23.92
                        0.050,1130.8] NSEG times
                      ( DISTANCE(m), ELEVATION(m))=
                      [-1060.52, 94 ]
                      [-268.6, 91.5 ]
                      [-259.43, 91.5 ]
                      [-179.48, 91.5 ]
                      [-67.9, 91.5 ]
                      [-59.21, 91.5 ]
                      [-33.19, 91 ]
                      [-26.08, 90.5 ]
                      [-24.04, 90 ]
                      [-13.14, 86.77 ]
                      [0, 85 ]
                      [14.68, 86.74 ]
                      [23.92, 90 ]
                      [25.78, 90.5 ]
                      [31.91, 91 ]
                      [91.95, 91.5 ]
                      [772.15, 92 ]
                      [961.49, 92.5 ]
                      [1044.69, 93 ]
                      [1130.8, 95 ]
*%----------------|---------------------------------------------------------------|
ADD HYD               NHYDsum=["5002"], NHYDs to add=["5737"+"S-1-D1R"+"S-1-D6R"+"S-1-D7R"+"S-1-D1Rovf"+"S-1-D6Rovf"+"S-1-D7Rovf"]
*%----------------|---------------------------------------------------------------|
SAVE HYD              NHYD=["5002"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                      HYD_COMMENT=["Total Flows before Station 5002 on Jock River"]
*%----------------|---------------------------------------------------------------|
*# Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
*# JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable and give reasonable results. It is justifiable as ROUTE CHANNELs aren't well suited to really flat slopes.
*# JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model will be more stable
*# JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m  That is because of adding station 5737 between station 6016 and station 5002. Then the length from station 5737 to station 5002 is 736 m  Change the slope from 0.0255 % to 0.09511 %
*
ROUTE CHANNEL         NHYDout=["N_WCa"] ,NHYDin=["5002"] ,
                      RDT=[1](min),
                      CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                           FPSLOPE=[0.09511](%),
                      SECNUM=[1.0],         NSEG=[3]
                      ( SEGROUGH, SEGDIST(m))=
                        [0.050,-37.5
                        -0.035,37.50
                        0.050,157.05] NSEG times
                      ( DISTANCE(m), ELEVATION(m))=
                      [-601.81, 91.5]
                      [-37.50, 90.00]
                      [-19.61, 87.04]
                      [0.00, 85.70]
```

```
                        [14.87,  86.93]
                        [37.50,  90.00]
                        [38.54,  90.50]
                        [42.23,  91]
                        [157.05,91.50]
*                        [161.44,  91.50]
*                        [236.48,  93.00]
*                        [385.47,  92.50]
*                        [390.78,  92.50]
*%----------------|-------------------------------------------------------------|
ROUTE CHANNEL           NHYDout=["N_WCb"] ,NHYDin=["N_WCa"] ,
                        RDT=[1](min),
                        CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                                 FPSLOPE=[0.09511](%),
                        SECNUM=[1.0],            NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-37.5
                          -0.035,37.50
                          0.050,157.05] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-601.81,  91.5]
                        [-37.50,  90.00]
                        [-19.61,  87.04]
                        [0.00,  85.70]
                        [14.87,  86.93]
                        [37.50,  90.00]
                        [38.54,  90.50]
                        [42.23,  91]
                        [157.05,91.50]
*%----------------|-------------------------------------------------------------|
ROUTE CHANNEL           NHYDout=["N_WC"] ,NHYDin=["N_WCb"] ,
                        RDT=[1](min),
                        CHLGTH=[245.33333](m),   CHSLOPE=[0.09511](%),
                                                 FPSLOPE=[0.09511](%),
                        SECNUM=[1.0],            NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.050,-37.5
                          -0.035,37.50
                          0.050,157.05] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-601.81,  91.5]
                        [-37.50,  90.00]
                        [-19.61,  87.04]
                        [0.00,  85.70]
                        [14.87,  86.93]
                        [37.50,  90.00]
                        [38.54,  90.50]
                        [42.23,  91]
                        [157.05,91.50]
*#*************************************************************************
*       -JFSA 2021-02-08 Clarke (MS_P2 and P2-OVF) and Clarke Undeveloped area
(W_CLAR_UNDE) drain to Jock River at Station 5002 instead of Station 4534
*ADD HYD                 NHYDsum=["SN_WC"], NHYDs to
add=["MS_P2"+"P2-OVF"+"N_WC"+"W_CLAR_UNDE"]
*%----------------|-------------------------------------------------------------|
*SAVE HYD                NHYD=["SN_WC"],    # OF PCYCLES=[-1],  ICASEsh=[1]
*                       HYD_COMMENT=["Total Flows at West Clarke Pond Outlet"]
*%----------------|-------------------------------------------------------------|
*# Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
*#
ROUTE CHANNEL           NHYDout=["N_KB"] ,NHYDin=["N_WC"] ,
                        RDT=[1](min),
                        CHLGTH=[1020](m),   CHSLOPE=[0.0498](%),
                                             FPSLOPE=[0.0498](%),
                        SECNUM=[1.0],            NSEG=[3]
```

```
                    ( SEGROUGH, SEGDIST (m))=
                      [0.050,-23.63
                      -0.035,23.63
                      0.050,728.3] NSEG times
                    ( DISTANCE (m), ELEVATION (m))=
                    [-1082.01,94]
                    [-1028.17,92.5]
                    [-992.3,93.5]
                    [-279.34,90]
                    [-23.63,90]
                    [-13.45,87.13]
                    [-0.07,86.24]
                    [10.54,87.15]
                    [23.63,90]
                    [24.86,90.5]
                    [26.72,91]
                    [45.07,91.5]
                    [128.17,91.5]
                    [270.7,92.5]
                    [728.3,95]
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#    Catchment KEN_BU
*#    - To Kennedy-Burnett SWM Facility
*#    - Outlets to Fraser-Clarke drain (north of the Jock)
*#    - Medium density residential subdivision
*     - Add Kennedy Burnett model (Convert PCSWMM from NOVATECH June, 2020 to SWMHYMO)
*#*****************************************************************************
*CONTINUOUS STANDHYD NHYD=["KEN_BU"], DT=[1]min, AREA=[281](ha),
*                    XIMP=[0.55], TIMP=[0.55], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[71],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                            LGI=[1369](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),   END=-1
*%----------------|-----------------------------------------------------------|
*#*****************************************************************************
*#   Existing Kennedy-Burnett SWM Facility
*#    - Rating curve obtained from URTKBP
*#    - Tributary Drainage Area to Pond = 160 ha
*#*****************************************************************************
*ROUTE RESERVOIR     NHYDout=["KEN_P"],  NHYDin=["KEN_BU"],
*                    RDT=[1](min),
*                          TABLE of ( OUTFLOW-STORAGE ) values
*                                     (cms) - (ha-m)
*                                   [   0.0 ,  0.0 ]
*                                   [   0.13 , 0.26]
*                                   [   0.43 , 0.56]
*                                   [   0.67 , 0.90]
*                                   [   0.86 , 1.32]
*                                   [   1.01 , 1.79]
*                                   [   1.15 , 2.33]
*                                   [   -1  ,  -1  ]  (max twenty pts)
*                          NHYDovf=["KEN-OV"]
*%----------------|-----------------------------------------------------------|
*     -JFSA, 2021-01-19  update all KEN_BU areas based on GIS measurements
CONTINUOUS STANDHYD NHYD=["KB-01A"], DT=[1]min, AREA=[40.82](ha), XIMP=[0.097],
TIMP=[0.4], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                    F=[0.00](mm),
                    Pervious   areas: IAper=[4.67](mm), SLPP=[0.5](%), LGP=[40](m),
                    MNP=[0.250], SCP=[0](min),
```

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                        Impervious areas: IAimp=[0.785](mm), SLPI=[0.5](%),
                        LGI=[521.664](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-01A"], CINLET=[3.6](cms), NINLET=[1],
                        MajNHYD=["KB-01A-MJ"]
                        MinNHYD=["KB-01A-MN"]
                        TMISTO=[4995](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-01A-S"], NHYDs to add=["KB-01A-MJ"+"KB-01A-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-01B"], DT=[1]min, AREA=[31.1](ha), XIMP=[0.1875],
TIMP=[0.375], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[0.42](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[0.42](%),
                        LGI=[455.339](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-01B"], CINLET=[1.585](cms), NINLET=[1],
                        MajNHYD=["KB-01B-MJ"]
                        MinNHYD=["KB-01B-MN"]
                        TMISTO=[6075](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-01B-S"], NHYDs to add=["KB-01B-MJ"+"KB-01B-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-01C"], DT=[1]min, AREA=[13.78](ha), XIMP=[0.2045],
TIMP=[0.409], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[0.5](%),
                        LGI=[303.095](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-01C"], CINLET=[1.35](cms), NINLET=[1],
                        MajNHYD=["KB-01C-MJ"]
                        MinNHYD=["KB-01C-MN"]
                        TMISTO=[1880](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-01C-S"], NHYDs to add=["KB-01C-MJ"+"KB-01C-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-03"], DT=[1]min, AREA=[84.78](ha), XIMP=[0.197],
TIMP=[0.394], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[0.63](%),
                        LGI=[751.798](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-03"], CINLET=[5.27](cms), NINLET=[1],
                        MajNHYD=["KB-03-MJ"]
                        MinNHYD=["KB-03-MN"]
```

```
                        TMJSTO=[15500](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-03-S"], NHYDs to add=["KB-03-MJ"+"KB-03-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-04"], DT=[1]min, AREA=[6.95](ha), XIMP=[0.85],
TIMP=[0.85], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.942](mm), SLPI=[0.5](%),
                        LGI=[215.252](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-04"], CINLET=[0.503](cms), NINLET=[1],
                        MajNHYD=["KB-04-MJ"]
                        MinNHYD=["KB-04-MN"]
                        TMJSTO=[1972](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-04-S"], NHYDs to add=["KB-04-MJ"+"KB-04-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-05"], DT=[1]min, AREA=[5.19](ha), XIMP=[0.93],
TIMP=[0.93], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[0.5](%),
                        LGI=[186.011](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-06"], DT=[1]min, AREA=[12.93](ha), XIMP=[0.873],
TIMP=[0.873], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.942](mm), SLPI=[4.75](%),
                        LGI=[293.598](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-06"], CINLET=[2.262](cms), NINLET=[1],
                        MajNHYD=["KB-06-MJ"]
                        MinNHYD=["KB-06-MN"]
                        TMJSTO=[1950](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-06-S"], NHYDs to add=["KB-06-MJ"+"KB-06-MN"]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-11"], DT=[1]min, AREA=[4.03](ha), XIMP=[0.675],
TIMP=[0.675], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[163.911](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
```

```
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD    NHYDin=["KB-11"], CINLET=[0.5773](cms), NINLET=[1],
                   MajNHYD=["KB-11-MJ"]
                   MinNHYD=["KB-11-MN"]
                   TMJSTO=[597](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD            NHYDsum=["KB-11-S"], NHYDs to add=["KB-11-MJ"+"KB-11-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["S1"], DT=[1]min, AREA=[4.99](ha), XIMP=[0.93], TIMP=[0.93],
DWF=[0](cms), LOSS=[1]:
                   Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                   F=[0.00](mm),
                   Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                   MNP=[0.250], SCP=[0](min),
                   Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                   LGI=[182.392](m), MNI=[0.013], SCI=[0](min),
                   Continuous simulation parameters:
                   IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-15"], DT=[1]min, AREA=[2.15](ha), XIMP=[0.79],
TIMP=[0.79], DWF=[0](cms), LOSS=[1]:
                   Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                   F=[0.00](mm),
                   Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                   MNP=[0.250], SCP=[0](min),
                   Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%),
                   LGI=[119.722](m), MNI=[0.013], SCI=[0](min),
                   Continuous simulation parameters:
                   IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                   END=-1
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD            NHYDsum=["KB-P1"], NHYDs to
add=["KB-01A-S"+"KB-01B-S"+"KB-01C-S"+"KB-03-S"+"KB-04-S"+"KB-05"+"KB-06-S"+"KB-11-S"+"KB
-15"+"S1"]
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR    NHYDout=["KB-P1R"],   NHYDin=["KB-P1"],
                   RDT=[1](min),
                         TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [   0.0 ,  0.0 ]
                                  [0.076,0.003]
                                  [0.088,0.006]
                                  [0.136,0.011]
                                  [0.301,0.017]
                                  [0.454,0.027]
                                  [0.631,0.041]
                                  [1.173,0.068]
                                  [1.91,0.111]
                                  [4.847,0.231]
                                  [9.813,0.436]
                                  [12.134,0.617]
                                  [12.438,0.732]
                                  [12.424,0.811]
                                  [12.425,0.894]
                                  [   -1  ,  -1  ]  (max twenty pts)
                         NHYDovf=["KB-P1ovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD            NHYDsum=["KB-Pond1"], NHYDs to add=["KB-P1R"+"KB-P1ovf"]
*%----------------|-------------------------------------------------------------|
SAVE HYD           NHYD=["KB-Pond1"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                   HYD_COMMENT=["Total Flows at KB first pond"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-07"], DT=[1]min, AREA=[10.86](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
```

```
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[269.072](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-07"], CINLET=[2.094](cms), NINLET=[1],
                        MajNHYD=["KB-07-MJ"]
                        MinNHYD=["KB-07-MN"]
                        TMJSTO=[1378](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-07-S"], NHYDs to add=["KB-07-MJ"+"KB-07-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-08"], DT=[1]min, AREA=[6.61](ha), XIMP=[0.64],
TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[209.921](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["KB-08"], CINLET=[1.058](cms), NINLET=[1],
                        MajNHYD=["KB-08-MJ"]
                        MinNHYD=["KB-08-MN"]
                        TMJSTO=[787](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["KB-08-S"], NHYDs to add=["KB-08-MJ"+"KB-08-MN"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-09"], DT=[1]min, AREA=[2.6](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                        LGI=[131.656](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-10_1"], DT=[1]min, AREA=[2.37](ha),  XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%),
                        LGI=[125.698](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-10_2"], DT=[1]min, AREA=[1.14](ha), XIMP=[0.86],
TIMP=[0.86], DWF=[0](cms), LOSS=[1]:
                        Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
```

```
                        MNP=[0.250], SCP=[0](min),
3294                    Impervious areas: IAimp=[1.57](mm), SLPI=[2.0](%), LGI=[87.178](m),
                        MNI=[0.013], SCI=[0](min),
3295                    Continuous simulation parameters:
3296                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3297    *%--------------|-------------------------------------------------------------|
3298    *%--------------|-------------------------------------------------------------|
3299    CONTINUOUS STANDHYD NHYD=["KB-12"], DT=[1]min, AREA=[4.86](ha), XIMP=[0.79],
        TIMP=[0.79], DWF=[0](cms), LOSS=[1]:
3300                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3301                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3302                    Impervious areas: IAimp=[1.099](mm), SLPI=[2.0](%),
                        LGI=[180.000](m), MNI=[0.013], SCI=[0](min),
3303                    Continuous simulation parameters:
3304                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3305    *%--------------|-------------------------------------------------------------|
3306    COMPUTE DUALHYD     NHYDin=["KB-12"], CINLET=[0.8665](cms), NINLET=[1],
3307                        MajNHYD=["KB-12-MJ"]
3308                        MinNHYD=["KB-12-MN"]
3309                        TMJSTO=[632](cu-m)
3310    *%--------------|-------------------------------------------------------------|
3311    ADD HYD             NHYDsum=["KB-12-S"], NHYDs to add=["KB-12-MJ"+"KB-12-MN"]
3312    *%--------------|-------------------------------------------------------------|
3313    CONTINUOUS STANDHYD NHYD=["KB-13"], DT=[1]min, AREA=[10.19](ha), XIMP=[0.64],
        TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
3314                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3315                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3316                    Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[260.640](m), MNI=[0.013], SCI=[0](min),
3317                    Continuous simulation parameters:
3318                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3319    *%--------------|-------------------------------------------------------------|
3320    COMPUTE DUALHYD     NHYDin=["KB-13"], CINLET=[1.722](cms), NINLET=[1],
3321                        MajNHYD=["KB-13-MJ"]
3322                        MinNHYD=["KB-13-MN"]
3323                        TMJSTO=[1077](cu-m)
3324    *%--------------|-------------------------------------------------------------|
3325    ADD HYD             NHYDsum=["KB-13-S"], NHYDs to add=["KB-13-MJ"+"KB-13-MN"]
3326    *%--------------|-------------------------------------------------------------|
3327    CONTINUOUS STANDHYD NHYD=["KB-14"], DT=[1]min, AREA=[5.47](ha), XIMP=[0.64],
        TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
3328                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                        F=[0.00](mm),
3329                    Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
3330                    Impervious areas: IAimp=[0.785](mm), SLPI=[2.0](%),
                        LGI=[190.962](m), MNI=[0.013], SCI=[0](min),
3331                    Continuous simulation parameters:
3332                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
3333    *%--------------|-------------------------------------------------------------|
3334    COMPUTE DUALHYD     NHYDin=["KB-14"], CINLET=[0.8734](cms), NINLET=[1],
3335                        MajNHYD=["KB-14-MJ"]
3336                        MinNHYD=["KB-14-MN"]
3337                        TMJSTO=[631](cu-m)
3338    *%--------------|-------------------------------------------------------------|
3339    ADD HYD             NHYDsum=["KB-14-S"], NHYDs to add=["KB-14-MJ"+"KB-14-MN"]
3340    *%--------------|-------------------------------------------------------------|
3341    *%--------------|-------------------------------------------------------------|
```

```
CONTINUOUS STANDHYD NHYD=["KB-16_2"], DT=[1]min, AREA=[3.42](ha), XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%), LGI=[150.997](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-P2"], NHYDs to add=["KB-Pond1"+"KB-07-S"+"KB-08-S"+"KB-09"+"KB-10_1"+"KB-10_2"+"KB-12-S"+"KB-13-S"+"KB-14-S"+"KB-16_2"]
*%-----------------|-------------------------------------------------------------|
ROUTE RESERVOIR     NHYDout=["KB-P2R"], NHYDin=["KB-P2"],
                    RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [   0.0 ,  0.0 ]
                                [0.053, 0.005]
                                [0.132, 0.009]
                                [0.269, 0.014]
                                [0.455, 0.023]
                                [0.699, 0.037]
                                [0.947, 0.056]
                                [1.853, 0.09]
                                [2.712, 0.146]
                                [6.626, 0.287]
                                [11.228, 0.515]
                                [14.885, 0.738]
                                [16.473, 0.893]
                                [17.311, 0.998]
                                [17.633, 1.063]
                                [17.634, 1.112]
                                [   -1 ,   -1 ]  (max twenty pts)
                        NHYDovf=["KB-P2ovf"]
*%-----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-Pond2"], NHYDs to add=["KB-P2R"+"KB-P2ovf"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["KB-Pond2"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at KB second pond"]
*%-----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["KB-16_1"], DT=[1]min, AREA=[2.8](ha), XIMP=[0.75], TIMP=[0.75], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[0.157](mm), SLPI=[0.3](%), LGI=[136.626](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["KB-P3"], NHYDs to add=["KB-Pond2"+"KB-16_1"]
*%-----------------|-------------------------------------------------------------|
*%-----------------|-------------------------------------------------------------|
* One inflow node from pond 3 is added to the model (ROUTE RESERVOIR)
* Another inflow node from right side of pond 3 is not added to the model
ROUTE RESERVOIR     NHYDout=["KB-P3R"], NHYDin=["KB-P3"],
                    RDT=[1](min),
                        TABLE of ( OUTFLOW-STORAGE ) values
                                  (cms) - (ha-m)
                                [   0.0 ,  0.0 ]
```

```
                                        [0.051,0.002]
                                        [0.048,0.003]
                                        [0.057,0.029]
                                        [0.089,0.045]
                                        [0.133,0.069]
                                        [0.199,0.106]
                                        [0.321,0.172]
                                        [1.029,0.306]
                                        [4.036,0.527]
                                        [8.332,0.761]
                                        [11.727,0.941]
                                        [14.125,1.067]
                                        [15.675,1.149]
                                        [16.555,1.196]
                                        [16.911,1.214]
                                        [   -1   ,   -1   ]   (max twenty pts)
                              NHYDovf=["KB-P3ovf"]
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["KB-Pond3"], NHYDs to add=["KB-P3R"+"KB-P3ovf"]
*%----------------|-------------------------------------------------------------|
SAVE HYD          NHYD=["KB-Pond3"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                  HYD_COMMENT=["Total Flows at KB third pond"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#    EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM
Modeling Approach, NOVATECH Report June, 2020)
*#    - TO FRASER-CLARKE DRAIN
*#*****************************************************************************
CONTINUOUS STANDHYD NHYD=["FC-01"], DT=[1]min, AREA=[8.03](ha), XIMP=[0.47],
TIMP=[0.47], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                  LGI=[231.373](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["FC-01"], CINLET=[0.756](cms), NINLET=[1],
                  MajNHYD=["FC-01-MJ"]
                  MinNHYD=["FC-01-MN"]
                  TMJSTO=[714](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["FC-01-S"], NHYDs to add=["FC-01-MJ"+"FC-01-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["FC-02"], DT=[1]min, AREA=[16.05](ha), XIMP=[0.93],
TIMP=[0.93], DWF=[0](cms), LOSS=[1]:
                  Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr),
                  F=[0.00](mm),
                  Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                  MNP=[0.250], SCP=[0](min),
                  Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                  LGI=[327.109](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                  END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["FC-02"], CINLET=[1.159](cms), NINLET=[1],
                  MajNHYD=["FC-02-MJ"]
                  MinNHYD=["FC-02-MN"]
                  TMJSTO=[2385](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["FC-02-S"], NHYDs to add=["FC-02-MJ"+"FC-02-MN"]
*%----------------|-------------------------------------------------------------|
```

```
CONTINUOUS STANDHYD NHYD=["FC-03"], DT=[1]min, AREA=[7.37](ha), XIMP=[0.64], TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%), LGI=[221.660](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["FC-03"], CINLET=[0.358](cms), NINLET=[1],
                    MajNHYD=["FC-03-MJ"]
                    MinNHYD=["FC-03-MN"]
                    TMJSTO=[1131](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["FC-03-S"], NHYDs to add=["FC-03-MJ"+"FC-03-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["FC-04"], DT=[1]min, AREA=[12.87](ha), XIMP=[0.64], TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%), LGI=[292.916](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["FC-04"], CINLET=[0.741](cms), NINLET=[1],
                    MajNHYD=["FC-04-MJ"]
                    MinNHYD=["FC-04-MN"]
                    TMJSTO=[1794](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["FC-04-S"], NHYDs to add=["FC-04-MJ"+"FC-04-MN"]
*%----------------|-------------------------------------------------------------|
*#*********************************************************************
*#     PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report June, 2020)
*#     - TO JOCK RIVER
*#*********************************************************************
CONTINUOUS STANDHYD NHYD=["JR-01"], DT=[1]min, AREA=[8.24](ha), XIMP=[0.64], TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
                    Pervious areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m), MNP=[0.250], SCP=[0](min),
                    Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%), LGI=[234.379](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs), END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["JR-01"], CINLET=[0.563](cms), NINLET=[1],
                    MajNHYD=["JR-01-MJ"]
                    MinNHYD=["JR-01-MN"]
                    TMJSTO=[1040](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["JR-01-S"], NHYDs to add=["JR-01-MJ"+"JR-01-MN"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["JR-02"], DT=[1]min, AREA=[1.59](ha), XIMP=[0.64], TIMP=[0.64], DWF=[0](cms), LOSS=[1]:
                    Horton: Fo=[76.20](mm/hr), Fc=[13.20](mm/hr), DCAY=[4.14](/hr), F=[0.00](mm),
```

```
                        Pervious   areas: IAper=[4.67](mm), SLPP=[2.0](%), LGP=[40](m),
                        MNP=[0.250], SCP=[0](min),
                        Impervious areas: IAimp=[1.57](mm), SLPI=[1.0](%),
                        LGI=[102.956](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs), InterEventTime=[12](hrs),
                        END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["JR-02"], CINLET=[0.153](cms), NINLET=[1],
                        MajNHYD=["JR-02-MJ"]
                        MinNHYD=["JR-02-MN"]
                        TMISTO=[153](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["JR-02-S"], NHYDs to add=["JR-02-MJ"+"JR-02-MN"]
*%----------------|-------------------------------------------------------------|
*#*************************************************************************
*#     Catchment FRASER
*#     - To Fraser-Clarke drain (north of the Jock)
*#     - Developed land with assumed 43% imp.
*#     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
*#     - 2020-12-17 All Fraser is undeveloped (Nashyd)
*#*************************************************************************
CONTINUOUS NASHYD       NHYD=["FRASER-DRN"], DT=[1]min, AREA=[13.65](ha),
                        DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
                        N=[3], TP=[0.4258]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
*
CONTINUOUS STANDHYD NHYD=["FRASER-D"], DT=[1]min, AREA=[21.61](ha),
                        XIMP=[0.585], TIMP=[0.585], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[80],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[379.561](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["FRASER-D"], CINLET=[2.281](cms), NINLET=[1],
                        MajNHYD=["FRASER-J"]
                        MinNHYD=["FRASER-N"]
                        TMISTO=[9999999](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["FRASER-S"], NHYDs to add=["FRASER-J"+"FRASER-N"]
*%----------------|-------------------------------------------------------------|
*ROUTE RESERVOIR      NHYDout=["MS_P20"],   NHYDin=["FRASER"],
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                 [    0.0 ,   0.0 ]
*                                 [    0.04 ,  0.36]
*                                 [    -1   ,  -1  ]  (max twenty pts)
*                           NHYDovf=["P20-OVF"]
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["4241"], NHYDs to
add=["KB-Pond3"+"S-1-B"+"FRASER-DRN"+"FRASER-S"+"N_KB"+"FC-01-S"+"FC-02-S"+"FC-03-S"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["4241"],    # OF PCYCLES=[-1],   ICASEsh=[1]
```

```
                        HYD_COMMENT=["Total Flows at Ken-Burnett Outlet"]
*%----------------|---------------------------------------------------------------|
*# Hydrograph from Node Ken-Burnett to station 3633
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
*#
ROUTE CHANNEL           NHYDout=["4241-out"], NHYDin=["4241"],   RDT=[1](min),
                        CHLGTH=[294](m),   CHSLOPE=[0.1088](%), FPSLOPE=[0.1088](%),
                        SECNUM=[1.0],         NSEG=[3]
                        (SEGROUGH, SEGDIST(m))=[0.05, -20.12
                                                -0.035, 45.26
                                                 0.05, 403.84] NSEG times
                        (DISTANCE(m), ELEVATION(m))=[]
                        [-909.72, 95 ]
                        [-907.09, 94.5 ]
                        [-904.65, 94 ]
                        [-902.26, 93.5 ]
                        [-44.51, 91.5 ]
                        [-25.1, 91.5 ]
                        [-20.98, 91 ]
                        [-20.61, 90.5 ]
                        [-20.12, 90 ]
                        [-6.13, 87.26 ]
                        [17.51, 86.56 ]
                        [31.37, 87.2 ]
                        [45.26, 90 ]
                        [50.41, 90.5 ]
                        [63.06, 91 ]
                        [134.5, 91.5 ]
                        [190.63, 92 ]
                        [251.98, 92.5 ]
                        [321.32, 93.5 ]
                        [403.84, 95 ]
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_KB"], NHYDs to
add=["4241-out"+"FC-04-S"+"JR-01-S"+"JR-02-S"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["SN_KB"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows before Station 3633"]
*%----------------|---------------------------------------------------------------|
*# Hydrograph from Station 3633 to Node Todd
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
*# JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and
change the slope from 0.0498% to 0.24671% That is because of adding station 4241
between station 4534 and  station 3633
*#
ROUTE CHANNEL           NHYDout=["N_TO"], NHYDin=["SN_KB"],   RDT=[1](min),
                        CHLGTH=[608](m),   CHSLOPE=[0.24671](%), FPSLOPE=[0.24671](%),
                        SECNUM=[1.0],         NSEG=[3]
                        (SEGROUGH, SEGDIST(m))=[0.05, -23.74
                                                -0.035, 23.74
                                                 0.05, 26.50] NSEG times
                        (DISTANCE(m), ELEVATION(m))=[]
                        -29.24, 91.0
                        -27.41, 90.5
                        -25.64, 90
                        -23.74, 89.5
                        -22, 89.26
                        -20, 88.51
                        -19, 88.32
                        -15, 88.1
                        -10, 88.11
                        -5, 88.17
                        0, 88.27
                        5, 88.19
                        10, 88.06
                        15, 88.48
```

```
                        16, 88.7
                        23.74, 89.5
                        24.68, 90
                        25.57, 90.5
                        26.50, 91.0
*                                       [-29.24, 91]
*                                       [-27.41, 90.5]
*                                       [-25.64, 90]
*                                       [-23.74, 89.5]
*                                       [-22, 89. 26]
*                                       [-20, 88.51]
*                                       [-19, 88.32]
*                                       [-15, 88.1]
*                                       [-10, 88.11]
*                                       [-5, 88.17]
*                                       [0, 88.27]
*                                       [5, 88.19]
*                                       [10, 88.06]
*                                       [15, 88.48]
*                                       [16, 88.7]
*                                       [23.74, 89.5]
*                                       [24.68, 90]
*                                       [25.57, 90.5]
*%----------------|-------------------------------------------------------------|
*#################################################################################
*#    Catchment Greenbank
*#    - To Greenbank Drain (south of the Jock)
*#    - JFSA 2021-01-18 add Greenbank pond as per JFSA, P598(06)-15, June 2016
*#    - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
*#################################################################################
CONTINUOUS STANDHYD NHYD=["Greenbank"], DT=[1]min, AREA=[36.6](ha),
                        XIMP=[0.639], TIMP=[0.682], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[493.96](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ROUTE RESERVOIR         NHYDout=["GreenB_MN"] ,NHYDin=["Greenbank"] ,
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                      [    0.0 , 0.0    ]
                                      [ 0.033 , 0.084 ]
                                      [ 0.039 , 0.201 ]
                                      [ 0.113 , 0.292 ]
                                      [ 0.237 , 0.386 ]
                                      [ 0.382 , 0.484 ]
                                      [ 0.539 , 0.585 ]
                                      [ 0.7 , 0.692 ]
                                      [ 0.86 , 0.804 ]
                                      [ 4.684 , 0.922 ]
                                      [ 11.539 , 1.052 ]
                                      [ 20.867 , 1.168 ]
                                      [ 103.616 , 1.974 ]
                                      [    -1 ,  -1    ]  (max twenty pts)
                              NHYDovf=["GreenB_MJ"] ,
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["GreenB"], NHYDs to add=["N_TO"+"GreenB_MJ"+"GreenB_MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["GreenB"],    # OF PCYCLES=[-1],   ICASEsh=[1]
```

```
                        HYD_COMMENT=["Total Flows at Greenbank Drain"]
*%----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment TODD
*#     - To Todd Drain (south of the Jock)
*#     - Subdivision with 43% imp. as per Barrhaven South MSS
*#     - 2020-11-30 increase imp. based on P598(04)-11
*#     - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on
P598(04)-11
*#     - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
*#*****************************************************************************
*#     - JFSA 2021-01-19 add "TODD_MN1" as part of Clarke("W_CLAR_MJ") and remove it
from Todd
*CONTINUOUS STANDHYD NHYD=["TODD_MN1"], DT=[1]min, AREA=[1.772](ha),
*                    XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
*                    SCS curve number CN=[77],
*                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                            LGI=[108.689](m), MNI=[0.013], SCI=[0](min),
*                    Continuous simulation parameters:
*                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MN2"], DT=[1]min, AREA=[2.1](ha),
                    XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[118.322](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MN3"], DT=[1]min, AREA=[0.117](ha),
                    XIMP=[0.53], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[27.928](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_MJ"], DT=[1]min, AREA=[30.230](ha),
                    XIMP=[0.52], TIMP=[0.64], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[448.925](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA, 2021-01-19  update "TODD_ALL" area from 108.741 ha to 112.908 ha based on
GIS measurements (148.41-30.23-0.117-2.1-3.055=112.908 ha)
CONTINUOUS STANDHYD NHYD=["TODD_ALL"], DT=[1]min, AREA=[112.908](ha),
                    XIMP=[0.52], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[77],
```

```
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[867.594](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["TODD_P"], DT=[1]min, AREA=[3.055](ha),
                        XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[142.712](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs), IaRECimp=[4](hrs),
                        SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_DEVL" is part of the Corrigan sub-catchment because it drains to Corrigan SWM as per geoOttawa.ca Feb. 2021. "TODD_DEVL" now is called "corr1" and its parameters remain the same.
*CONTINUOUS STANDHYD NHYD=["TODD_DEVL"], DT=[1]min, AREA=[15.87](ha),
*                       XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[77],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                               LGI=[325.27](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs), IaRECimp=[4](hrs),
*                       SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_UnD" is part of the Corrigan sub-catchment. "TODD_UnD" now is called "corr2" and its parameters remain the same.
*CONTINUOUS NASHYD   NHYD=["TODD_UnD"], DT=[1]min, AREA=[12.47](ha),
*                       DWF=[0](cms), CNVC=[77],  IA=[4.67](mm),
*                       N=[3], TP=[1.10]hrs,
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),   END=-1
*%----------------|-------------------------------------------------------------|
*# 5-Year + 12% Capture
*COMPUTE DUALHYD     NHYDin=["TODD_MJ"], CINLET=[3.314](cms), NINLET=[1],
*                       MajNHYD=["TODD_MJ"]
*                       MinNHYD=["TODD_MN"]
*                       TMJSTO=[0.1](cu-m)
ROUTE RESERVOIR     NHYDout=["TODD_MN"] ,NHYDin=["TODD_MJ"] ,
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [     0.0 ,  0.0     ]
                                    [  3.314  ,  0.0001  ]
                                    [     -1  ,   -1     ]  (max twenty pts)
                              NHYDovf=["TODD_MJ"] ,
*%----------------|-------------------------------------------------------------|
*# 5-Year + 12% Capture
```

```
*COMPUTE DUALHYD      NHYDin=["TODD_MN1"], CINLET=[0.227](cms), NINLET=[1],
*                     MajNHYD=["TODD_MN1j"]
*                     MinNHYD=["TODD_MN1n"]
*                     TMISTO=[0.1](cu-m)
*ROUTE RESERVOIR      NHYDout=["TODD_MN1n"] ,NHYDin=["TODD_MN1"] ,
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                    (cms) - (ha-m)
*                                  [     0.0 , 0.0     ]
*                                  [ 0.227   , 0.0001  ]
*                                  [     -1  ,  -1     ]  (max twenty pts)
*                           NHYDovf=["TODD_MN1j"] ,
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["TODD_MN2"], CINLET=[0.268](cms), NINLET=[1],
*                     MajNHYD=["TODD_MN2j"]
*                     MinNHYD=["TODD_MN2n"]
*                     TMISTO=[0.1](cu-m)
ROUTE RESERVOIR      NHYDout=["TODD_MN2n"] ,NHYDin=["TODD_MN2"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [     0.0 , 0.0     ]
                                  [ 0.268   , 0.0001  ]
                                  [     -1  ,  -1     ]  (max twenty pts)
                           NHYDovf=["TODD_MN2j"] ,
*%-----------------|-------------------------------------------------------|
*COMPUTE DUALHYD      NHYDin=["TODD_MN3"], CINLET=[0.016](cms), NINLET=[1],
*                     MajNHYD=["TODD_MN3j"]
*                     MinNHYD=["TODD_MN3n"]
*                     TMISTO=[0.1](cu-m)
ROUTE RESERVOIR      NHYDout=["TODD_MN3n"] ,NHYDin=["TODD_MN3"] ,
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                  [     0.0 , 0.0     ]
                                  [ 0.016   , 0.0001  ]
                                  [     -1  ,  -1     ]  (max twenty pts)
                           NHYDovf=["TODD_MN3j"] ,
*%-----------------|-------------------------------------------------------|
*     -JFSA 2021-01-19 move A2 from Corrigan sub-catchment to Todd sub-catchment so the
major system from A2 can be added to Todd
CONTINUOUS STANDHYD NHYD=["A2"], DT=[1]min, AREA=[25.5](ha),
                     XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
                     SCS curve number CN=[75],
                     Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                              LGP=[40](m), MNP=[0.25], SCP=[0](min),
                     Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                              LGI=[566](m), MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[18](hrs),    END=-1
*%-----------------|-------------------------------------------------------|
COMPUTE DUALHYD      NHYDin=["A2"], CINLET=[1.818](cms), NINLET=[1],
                     MajNHYD=["A2-MJ"]
                     MinNHYD=["A2-MN"]
                     TMISTO=[924](cu-m)
*%-----------------|-------------------------------------------------------|
ADD HYD              NHYDsum=["TODD"], NHYDs to
add=["TODD_MN2n"+"TODD_MN3n"+"TODD_MJj"+"TODD_P"+"TODD_ALL"+"W_CLAR_MJn"]
*%-----------------|-------------------------------------------------------|
SAVE HYD             NHYD=["TODD"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Todd Drain"]
*%-----------------|-------------------------------------------------------|
*#*****************************************************************************
*#     Todd Pond 3
```

```
*#     - Rating curve obtained from Barrhaven South MSS modeling
*#     - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
*#*************************************************************************
ROUTE RESERVOIR      NHYDout=["MS_P3"],   NHYDin=["TODD"],
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                 (cms) - (ha-m)
                              [    0.0 ,   0.0 ]
                              [  0.014 ,  0.155 ]
                              [  0.048 ,  0.394 ]
                              [  0.061 ,  0.56 ]
                              [  0.08 ,  0.909 ]
                              [  0.088 ,  1.089 ]
                              [  0.109 ,  1.652 ]
                              [  0.118 ,  1.952 ]
                              [  0.122 ,  2.099 ]
                              [  1.972 ,  2.269 ]
                              [  9.135 ,  2.598 ]
                              [  15.608 ,  2.826 ]
                              [  19.256 ,  2.942 ]
                              [  27.282 ,  3.181 ]
                              [  40.957 ,  3.55 ]
                              [  56.372 ,  3.929 ]
                              [  73.349 ,  4.317 ]
                              [  85.469 ,  4.579 ]
                              [  104.771 ,  4.977 ]
                              [    -1   ,   -1   ]  (max twenty pts)
                           NHYDovf=["P3-OVF"]
*%-----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["SN_TO"], NHYDs to
add=["GreenB"+"MS_P3"+"P3-OVF"+"TODD_MN2j"+"A2-MJ"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["SN_TO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Todd Drain"]
*%-----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Todd Drain routed to Corrigan Drain
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*# 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so
the model will be more stable and give reasonable results. It is justifiable as ROUTE
CHANNELs aren't well suited to really flat slopes.
*
ROUTE CHANNEL        NHYDout=["N_TO"] ,NHYDin=["SN_TO"] ,
                     RDT=[1](min),
                     CHLGTH=[280](m),   CHSLOPE=[0.05](%),
                                          FPSLOPE=[0.05](%),
                     SECNUM=[1.0],          NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.075, -17.72
                       -0.045, 17.72
                       0.075, 80.62] NSEG times
                     ( DISTANCE (m), ELEVATION (m))=
                     [-83.32,  90.00]
                     [-81.36,  89.50]
                     [-79.12,  89.00]
                     [-76.13,  88.50]
                     [-20.46,  88.00]
                     [-19.36,  87.50]
                     [-18.51,  87.00]
                     [-17.72,  86.50]
                     [-11.95,  85.24]
                     [-0.11,  85.12]
                     [11.49,  85.20]
                     [17.72,  86.50]
                     [19.74,  87.00]
                     [21.22,  87.50]
```

```
                        [22.68,  88.00]
                        [24.28,  88.50]
                        [26.79,  89.00]
                        [71.98,  90.00]
                        [80.62,  90.50]
*%----------------|------------------------------------------------------------|
SAVE HYD                NHYD=["N_TO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total inflows at Station 2462"]
*%----------------|------------------------------------------------------------|
*#*****************************************************************************
*#     Catchment CORRIG
*#     - To Corrigan Drain (south of the Jock)
*#     - Primarily Developed (medium density)
*#     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
*#*****************************************************************************
*ROUTE RESERVOIR     NHYDout=["MS_P1"],   NHYDin=["CORRIG"],
*                        RDT=[1](min),
*                              TABLE of ( OUTFLOW-STORAGE ) values
*                                        (cms) - (ha-m)
*                                     [    0.0 ,   0.0 ]
*                                     [    0.06 ,  0.58]
*                                     [    -1  ,   -1  ]  (max twenty pts)
*                              NHYDovf=["P1-OVF"]
*%----------------|------------------------------------------------------------|
*ADD HYD                 NHYDsum=["SN_CO"], NHYDs to add=["N_TO"+"P1-OVF"+"MS_P1"]
*%----------------|------------------------------------------------------------|
*SAVE HYD                NHYD=["SN_CO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
*                        HYD_COMMENT=["Total Flows at Corrigan Drain"]
*%----------------|------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_DEVL" is part of the Corrigan sub-catchment because it drains to Corrigan SWM as per geoOttawa.ca Feb. 2021. "TODD_DEVL" now is called "corr1" and its parameters remain the same.
CONTINUOUS STANDHYD NHYD=["corr1"], DT=[1]min, AREA=[15.87](ha),
                        XIMP=[0.63], TIMP=[0.63], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[325.27](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|------------------------------------------------------------|
*      -JFSA 2021-02-23 add DUALHYD for "corr1". "corr1" DUALHYD Parameters are the same as A2 DUALHYD Parameters because A2 is the nearest sub-catchment to "corr1".
*       At the same time, Corrigan Report, IBI group 2008 has no DUALHYD Parameters for A1-Corrig
COMPUTE DUALHYD     NHYDin=["corr1"], CINLET=[1.818](cms), NINLET=[1],
                        MajNHYD=["corr1-MJ"]
                        MinNHYD=["corr1-MN"]
                        TMISTO=[924](cu-m)
*%----------------|------------------------------------------------------------|
*    -JFSA 2021-02-23 "TODD_UnD" is part of the Corrigan sub-catchment. "TODD_UnD" now is called "corr2" and its parameters remain the same.
CONTINUOUS NASHYD   NHYD=["corr2"], DT=[1]min, AREA=[12.47](ha),
                        DWF=[0](cms), CNVC=[77],   IA=[4.67](mm),
                        N=[3], TP=[1.10]hrs,
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[12](hrs)
                        Baseflow simulation parameters:
                        BaseFlowOption=[1] ,
                        InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                        VHydCond=[0.055](mm/hr),    END=-1
```

```
*%----------------|---------------------------------------------------------|
*     -JFSA 2021-01-19 change A1-Corrig to be developed as per geoottawa website and apply the parameters of A2, the nearest sub-catchment to A1-Corrig, LGI is calculated based on A1-Corrig area
*     -JFSA 2021-01-19 update all Corrigan areas based on GIS measurements, and keep LGI as it is from Corrigan Report, IBI Group, 2008 because LGI calculated is less than LGI from the Corrigan Report
CONTINUOUS STANDHYD NHYD=["A1-Corrig"], DT=[1]min, AREA=[15.75](ha),
                    XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[324.037](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*
*      -JFSA 2021-01-25 add DUALHYD for A1-Corrig. A1-Corrig DUALHYD Parameters are the same as A2 DUALHYD Parameters because A2 is the nearest sub-catchment to A1-Corrig.
*       At the same time, Corrigan Report, IBI group 2008 has no DUALHYD Parameters for A1-Corrig
COMPUTE DUALHYD     NHYDin=["A1-Corrig"], CINLET=[1.818](cms), NINLET=[1],
                    MajNHYD=["A1-MJ"]
                    MinNHYD=["A1-MN"]
                    TMJSTO=[924](cu-m)
*%----------------|---------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["A1-Corrig"], DT=[1]min, AREA=[15.75](ha),
*                   DWF=[0](cms),  CNVC=[66], IA=[2.5](mm),
*                   N=[3.0], TP=[0.36]hrs,
*                   Continuous simulation parameters:
*                   IaRECper=[4](hrs),
*                   SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                   InterEventTime=[12](hrs)
*                   Baseflow simulation parameters:
*                   BaseFlowOption=[1] ,
*                   InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                   VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS NASHYD   NHYD=["B1"], DT=[1]min, AREA=[2.77](ha),
                    DWF=[0](cms),  CNVC=[56], IA=[2.5](mm),
                    N=[3.0], TP=[0.23]hrs,
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                    BaseFlowOption=[1] ,
                    InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                    VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A4"], DT=[1]min, AREA=[1.27](ha),
                    XIMP=[0.65], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[253](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A4"], CINLET=[0.405](cms), NINLET=[1],
                    MajNHYD=["A4-MJ"]
```

```
                        MinNHYD=["A4-MN"]
                        TMISTO=[68](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH101"], NHYDs to
add=["A1-MJ"+"A1-MN"+"corr1-MJ"+"corr1-MN"+"corr2"+"B1"+"A4-MN"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["MH101"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH101"]
*%----------------|-------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["101-102"], RNUMBER=[1.0], PDIAM=[1050](mm),
                        PLNGTH=[368](m), PROUGH=[0.013], PSLOPE=[0.0054](m/m),
                        NHYDin=["MH101"], RDT=[1]
*%----------------|-------------------------------------------------------------|
*    -JFSA 2021-01-19 move A2 from Corrigan sub-catchment to Todd sub-catchment so the
major system from A2 can be added to Todd
*CONTINUOUS STANDHYD NHYD=["A2"], DT=[1]min, AREA=[25.5](ha),
*                       XIMP=[0.42], TIMP=[0.52], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[75],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                               LGI=[566](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
*COMPUTE DUALHYD     NHYDin=["A2"], CINLET=[1.818](cms), NINLET=[1],
*                       MajNHYD=["A2-MJ"]
*                       MinNHYD=["A2-MN"]
*                       TMISTO=[924](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH102"], NHYDs to add=["A2-MN"+"101-102"]
*%----------------|-------------------------------------------------------------|
SAVE HYD                NHYD=["MH102"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH102"]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A5"], DT=[1]min, AREA=[1.6](ha),
                        XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[300](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD                 NHYDsum=["A5T"], NHYDs to add=["A4-MJ"+"A5"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A5T"], CINLET=[0.357](cms), NINLET=[1],
                        MajNHYD=["A5-MJ"]
                        MinNHYD=["A5-MN"]
                        TMISTO=[60](cu-m)
*%----------------|-------------------------------------------------------------|
*   -JFSA Jan. 2021, A3 is a part of Todd so it is removed
*   -JFSA Jan. 2021, "A2-MJ" added to "Todd"
*CONTINUOUS STANDHYD NHYD=["A3"], DT=[1]min, AREA=[18.4](ha),
*                       XIMP=[0.58], TIMP=[0.65], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[75],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                               LGI=[450](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
```

```
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["A3-A2MJ"], NHYDs to add=["A2-MJ"+"A3"]
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["A3-A2MJ"], CINLET=[2.208](cms), NINLET=[1],
*                       MajNHYD=["A3R-MJ"]
*                       MinNHYD=["A3R-MN"]
*                       TMSTO=[908](cu-m)
*%----------------|---------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["102-103"], RNUMBER=[1.0], PDIAM=[1500](mm),
                        PLNGTH=[504](m), PROUGH=[0.013], PSLOPE=[0.0028](m/m),
                        NHYDin=["MH102"], RDT=[1]
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["MH103"], NHYDs to add=["102-103"+"A5-MN"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["MH103"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH103"]
*%----------------|---------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["103-104"], RNUMBER=[1.0], PDIAM=[1650](mm),
                        PLNGTH=[438](m), PROUGH=[0.013], PSLOPE=[0.0046](m/m),
                        NHYDin=["MH103"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A6"], DT=[1]min, AREA=[1.56](ha),
                        XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[280](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["A6T"], NHYDs to add=["A5-MJ"+"A6"]
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["A6T"], CINLET=[0.357](cms), NINLET=[1],
                        MajNHYD=["A6-MJ"]
                        MinNHYD=["A6-MN"]
                        TMSTO=[60](cu-m)
*%----------------|---------------------------------------------------------|
*   -JFSA Jan. 2021, A7-corrig is a part of Todd so it is removed
*CONTINUOUS STANDHYD NHYD=["A7-corrig"], DT=[1]min, AREA=[11.8](ha),
*                       XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
*                       SCS curve number CN=[75],
*                       Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
*                               LGP=[40](m), MNP=[0.25], SCP=[0](min),
*                       Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
*                               LGI=[438](m), MNI=[0.013], SCI=[0](min),
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),  IaRECimp=[4](hrs),
*                       SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*ADD HYD                NHYDsum=["A7-A3RMJ"], NHYDs to add=["A3R-MJ"+"A7-corrig"]
*%----------------|---------------------------------------------------------|
*COMPUTE DUALHYD        NHYDin=["A7-A3RMJ"], CINLET=[1.003](cms), NINLET=[1],
*                       MajNHYD=["A7R-MJ"]
*                       MinNHYD=["A7R-MN"]
*                       TMSTO=[496](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["MH104"], NHYDs to add=["A6-MN"+"103-104"+"TODD_MJn"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["MH104"],    # OF PCYCLES=[-1],   ICASEsh=[1]
```

```
                        HYD_COMMENT=["Total Flows at MH104"]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B2"], DT=[1]min, AREA=[12.31](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[417](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B2"], CINLET=[1.029](cms), NINLET=[1],
                    MajNHYD=["B2-MJ"]
                    MinNHYD=["B2-MN"]
                    TMJSTO=[508](cu-m)
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["315-333"], RNUMBER=[1.0], PDIAM=[1200](mm),
                    PLNGTH=[254](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["B2-MN"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B3"], DT=[1]min, AREA=[5.59](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[345](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B3"], CINLET=[0.459](cms), NINLET=[1],
                    MajNHYD=["B3-MJ"]
                    MinNHYD=["B3-MN"]
                    TMJSTO=[227](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD             NHYDsum=["MH333"], NHYDs to add=["B3-MN"+"315-333"]
*%----------------|---------------------------------------------------------|
SAVE HYD            NHYD=["MH333"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH333"]
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["333-335"], RNUMBER=[1.0], PDIAM=[1200](mm),
                    PLNGTH=[251](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["MH333"], RDT=[1]
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["335-338"], RNUMBER=[1.0], PDIAM=[1200](mm),
                    PLNGTH=[185](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["333-335"], RDT=[1]
*%----------------|---------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["338-340"], RNUMBER=[1.0], PDIAM=[1350](mm),
                    PLNGTH=[233](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["335-338"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B4"], DT=[1]min, AREA=[7.6](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[388](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
```

```
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["B4"], CINLET=[0.655](cms), NINLET=[1],
                        MajNHYD=["B4-MJ"]
                        MinNHYD=["B4-MN"]
                        TMISTO=[323](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["MH340"], NHYDs to add=["338-340"+"B4-MN"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["MH340"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH340"]
*%----------------|---------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["340-104"], RNUMBER=[1.0], PDIAM=[1650](mm),
                        PLNGTH=[240](m), PROUGH=[0.013], PSLOPE=[0.0015](m/m),
                        NHYDin=["MH340"], RDT=[1]
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["MH104T"], NHYDs to add=["340-104"+"MH104"]
*%----------------|---------------------------------------------------------|
ROUTE PIPE              PTYPE=[2]rect, NHYDout=["104-105"], RNUMBER=[1.0],
PWIDTH=[2400](mm)   by PHEIGHT=[2100](mm),
                        PLNGTH=[380](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                        NHYDin=["MH104T"], RDT=[1]
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B5"], DT=[1]min, AREA=[2.2](ha),
                        XIMP=[0.57], TIMP=[0.57], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[187](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["B5"], CINLET=[0.260](cms), NINLET=[1],
                        MajNHYD=["B5-MJ"]
                        MinNHYD=["B5-MN"]
                        TMISTO=[250](cu-m)
*%----------------|---------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A8"], DT=[1]min, AREA=[0.96](ha),
                        XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[186](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["A8T"], NHYDs to add=["A6-MJ"+"A8"]
*%----------------|---------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["A8T"], CINLET=[0.238](cms), NINLET=[1],
                        MajNHYD=["A8-MJ"]
                        MinNHYD=["A8-MN"]
                        TMISTO=[40](cu-m)
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["MH105"], NHYDs to
add=["104-105"+"B5-MN"+"A8-MN"+"TODD_MN3j"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["MH105"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH105"]
```

```
*%----------------|-------------------------------------------------------------|
DIVERT HYD        NHYDin=["A8-MJ"] NIDout=[2]max five,
                  outflow hydrographs (NHYDs)=["A8-MJ-JR" "A8-MJ-B6"]
                  flow distribution table: (modify as necessary)
                  Note: all flows are in (cms)
                    QIDi  +  QIDii   =  QTOTAL
                  [   0   +    0     =    0    ]                    ]
                  [   50  +   50     =    100  ] end
*%----------------|-------------------------------------------------------------------------------|
DIVERT HYD        NHYDin=["MH105"] NIDout=[2]max five,
                  outflow hydrographs (NHYDs)=["MH105-JR"  "MH105-B6"]
                  flow distribution table: (modify as necessary)
                  Note: all flows are in (cms)
                    QIDi  +  QIDii   =  QTOTAL
                  [   0   +    0     =    0    ]
                  [   0   +   3.0    =   3.0   ]
                  [  96.9+   3.1     =    100  ] end
*%----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["B7"], DT=[1]min, AREA=[7.19](ha),
                  XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[211](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
ADD HYD           NHYDsum=["B7-B4MJ"], NHYDs to add=["B4-MJ"+"B7"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD   NHYDin=["B7-B4MJ"], CINLET=[0.629](cms), NINLET=[1],
                  MajNHYD=["B7R-MJ"]
                  MinNHYD=["B7R-MN"]
                  TMJSTO=[311](cu-m)
*%----------------|-------------------------------------------------------------|
ROUTE PIPE        PTYPE=[1]circ, NHYDout=["360-106A"], RNUMBER=[1.0], PDIAM=[1050](mm),
                  PLNGTH=[167](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                  NHYDin=["B7R-MN"], RDT=[1]
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-19 change B6 to be developed as per geoottawa website and apply the
parameters of A7, the nearest sub-catchment to B6, LGI is calculated based on B6 area
CONTINUOUS STANDHYD NHYD=["B6"], DT=[1]min, AREA=[3.29](ha),
                  XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                  SCS curve number CN=[75],
                  Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                          LGP=[40](m), MNP=[0.25], SCP=[0](min),
                  Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                          LGI=[148.099](m), MNI=[0.013], SCI=[0](min),
                  Continuous simulation parameters:
                  IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                  SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                  InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------------|
*     -JFSA 2021-01-25   add B1 DUALHYD as per Corrigan Report, IBI Group, 2008
COMPUTE DUALHYD   NHYDin=["B6"], CINLET=[0.064](cms), NINLET=[1],
                  MajNHYD=["B6-MJ"]
                  MinNHYD=["B6-MN"]
                  TMJSTO=[5484](cu-m)
*%----------------|-------------------------------------------------------------|
*CONTINUOUS NASHYD   NHYD=["B6"], DT=[1]min, AREA=[3.29](ha),
*                   DWF=[0](cms),  CNVC=[75], IA=[2.5](mm),
*                   N=[3.0], TP=[0.36]hrs,
```

```
*                       Continuous simulation parameters:
*                       IaRECper=[4](hrs),
*                       SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
*                       InterEventTime=[12](hrs)
*                       Baseflow simulation parameters:
*                       BaseFlowOption=[1] ,
*                       InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
*                       VHydCond=[0.055](mm/hr),    END=-1
*%----------------|-------------------------------------------------------------|
*%    -EX-LAND is external land. It is a part of JOCKVA sub-catchment as per Corrigan Report, IBI Group, 2008
CONTINUOUS STANDHYD NHYD=["EX-LAND"], DT=[1]min, AREA=[32.5](ha),
                    XIMP=[0.50], TIMP=[0.50], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[74],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[465.475](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["EX-LAND"], CINLET=[2.275](cms), NINLET=[1],
                    MajNHYD=["EX-LAND-MJ"]
                    MinNHYD=["EX-LAND-MN"]
                    TMJSTO=[1365](cu-m)
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["B6-B7ExMJ"], NHYDs to add=["B7R-MJ"+"EX-LAND-MJ"+"B5-MJ"+"B6-MJ"+"B6-MN"+"A8-MJ-B6"]
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["B6-B7ExMJ"], CINLET=[0.064](cms), NINLET=[1],
                    MajNHYD=["B6R-MJ"]
                    MinNHYD=["B6R-MN"]
                    TMJSTO=[5484](cu-m)
*%----------------|-------------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["105-106A"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[208](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["MH105-B6"], RDT=[1]
*%----------------|-------------------------------------------------------------|
ADD HYD             NHYDsum=["MH106A"], NHYDs to add=["360-106A"+"105-106A"+"B6R-MN"+"B6R-MJ"]
*%----------------|-------------------------------------------------------------|
SAVE HYD            NHYD=["MH106A"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH106A"]
*%----------------|-------------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH106 is called MH117/106 in Corrigan Report, IBI Group, July 2008
*%
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["106A-106"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[190](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                    NHYDin=["MH106A"], RDT=[1]
*%----------------|-------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A9"], DT=[1]min, AREA=[2.44](ha),
                    XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[262](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                    SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),    END=-1
*%----------------|-------------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A9"], CINLET=[0.547](cms), NINLET=[1],
```

```
                        MajNHYD=["A9-MJ"]
                        MinNHYD=["A9-MN"]
                        TMJSTO=[0](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH106"], NHYDs to add=["106A-106"+"A9-MN"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["MH106"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH106"]
*%----------------|---------------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH107 is called MH118/107 in Corrigan Report, IBI Group, July 2008
*%
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["106-107"], RNUMBER=[1.0], PDIAM=[1800](mm),
                        PLNGTH=[122.5](m), PROUGH=[0.013], PSLOPE=[0.001](m/m),
                        NHYDin=["MH106"], RDT=[1]
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A10"], DT=[1]min, AREA=[4.14](ha),
                        XIMP=[0.35], TIMP=[0.47], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[183](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["A10"], CINLET=[0.310](cms), NINLET=[1],
                        MajNHYD=["A10-MJ"]
                        MinNHYD=["A10-MN"]
                        TMJSTO=[228](cu-m)
*%----------------|---------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A11"], DT=[1]min, AREA=[10.61](ha),
                        XIMP=[0.53], TIMP=[0.62], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[75],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[379](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),   END=-1
*%----------------|---------------------------------------------------------------|
COMPUTE DUALHYD         NHYDin=["A11"], CINLET=[0.993](cms), NINLET=[1],
                        MajNHYD=["A11-MJ"]
                        MinNHYD=["A11-MN"]
                        TMJSTO=[556](cu-m)
*%----------------|---------------------------------------------------------------|
ADD HYD                 NHYDsum=["MH107"], NHYDs to add=["106-107"+"A10-MN"+"A11-MN"]
*%----------------|---------------------------------------------------------------|
SAVE HYD                NHYD=["MH107"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at MH107"]
*%----------------|---------------------------------------------------------------|
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["107-119"], RNUMBER=[1.0], PDIAM=[1800](mm),
                        PLNGTH=[114](m), PROUGH=[0.013], PSLOPE=[0.0012](m/m),
                        NHYDin=["MH107"], RDT=[1]
*%----------------|---------------------------------------------------------------|
*%    -JFSA 2021-01-12 THE MANHOLE MH108 is called MH120/108 in Corrigan Report, IBI Group, July 2008
*%
ROUTE PIPE              PTYPE=[1]circ, NHYDout=["119-108"], RNUMBER=[1.0], PDIAM=[1800](mm),
                        PLNGTH=[65.8](m), PROUGH=[0.013], PSLOPE=[0.0012](m/m),
                        NHYDin=["107-119"], RDT=[1]
*%----------------|---------------------------------------------------------------|
```

```
CONTINUOUS STANDHYD NHYD=["A12"], DT=[1]min, AREA=[12.29](ha),
                    XIMP=[0.41], TIMP=[0.54], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[183](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A12"], CINLET=[1.029](cms), NINLET=[1],
                    MajNHYD=["A12-MJ"]
                    MinNHYD=["A12-MN"]
                    TMJSTO=[672](cu-m)
*%----------------|-------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["A13"], DT=[1]min, AREA=[2.59](ha),
                    XIMP=[0.71], TIMP=[0.71], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[379](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------|
COMPUTE DUALHYD     NHYDin=["A13"], CINLET=[0.571](cms), NINLET=[1],
                    MajNHYD=["A13-MJ"]
                    MinNHYD=["A13-MN"]
                    TMJSTO=[0](cu-m)
*%----------------|-------------------------------------------------------|
*   -JFSA 2021-01-22 add the Corrigan pond area ("Pond-Block")
CONTINUOUS STANDHYD NHYD=["Pond-Block"], DT=[1]min, AREA=[2.94](ha),
                    XIMP=[0.415], TIMP=[0.415], DWF=[0](cms), LOSS=[2],
                    SCS curve number CN=[75],
                    Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                            LGP=[40](m), MNP=[0.25], SCP=[0](min),
                    Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                            LGI=[183](m), MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[4](hrs), IaRECimp=[4](hrs),
                    SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.010]/(mm),
                    InterEventTime=[18](hrs),   END=-1
*%----------------|-------------------------------------------------------|
ADD HYD             NHYDsum=["MH108"], NHYDs to add=["119-108"+"A13-MN"+"A12-MN"]
*%----------------|-------------------------------------------------------|
SAVE HYD            NHYD=["MH108"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at MH108"]
*%----------------|-------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["108-116"], RNUMBER=[1.0], PDIAM=[1800](mm),
                    PLNGTH=[76.6](m), PROUGH=[0.013], PSLOPE=[0.0013](m/m),
                    NHYDin=["MH108"], RDT=[1]
*%----------------|-------------------------------------------------------|
ROUTE PIPE          PTYPE=[1]circ, NHYDout=["116-corrig"], RNUMBER=[1.0],
PDIAM=[1800](mm),
                    PLNGTH=[79.5](m), PROUGH=[0.013], PSLOPE=[0.0013](m/m),
                    NHYDin=["108-116"], RDT=[1]
*%----------------|-------------------------------------------------------|
ADD HYD             NHYDsum=["Corrigan"], NHYDs to add=["116-corrig"+"Pond-Block"]
*%----------------|-------------------------------------------------------|
SAVE HYD            NHYD=["Corrigan"],   # OF PCYCLES=[-1],  ICASEsh=[1]
                    HYD_COMMENT=["Total Flows at Corrigan Pond]
*%----------------|-------------------------------------------------------|
```

```
ROUTE RESERVOIR      NHYDout=["Co-P"],   NHYDin=["Corrigan"],
                     RDT=[1](min),
                           TABLE of ( OUTFLOW-STORAGE ) values
                                      (cms) - (ha-m)
                                    [    0.0 ,   0.0 ]
                                    [    0.015 ,  0.04118]
                                    [    0.030 ,  0.08297]
                                    [    0.045 ,  0.12537]
                                    [    0.060 ,  0.16837]
                                    [    0.075 ,  0.21199]
                                    [    0.090 ,  0.27545]
                                    [    0.105 ,  0.34650]
                                    [    0.120 ,  0.42049]
                                    [    0.135 ,  0.50188]
                                    [    0.186 ,  0.60307]
                                    [    2.110 ,  0.79083]
                                    [    5.874 ,  1.00271]
                                    [    11.395 ,  1.29643]
                                    [    18.770 ,  1.62054]
                                    [    28.143 ,  1.97516]
                                    [    -1   ,   -1   ]  (max twenty pts)
                           NHYDovf=["Co-P-OVF"]
*%-----------------|-------------------------------------------------------------|
ADD HYD              NHYDsum=["corrig"], NHYDs to
add=["Co-P-OVF"+"Co-P"+"N_TO"+"MH105-JR"+"A8-MJ-JR"+"A9-MJ"+"A10-MJ"+"A11-MJ"+"A12-MJ"+"A
13-MJ"]
*%-----------------|-------------------------------------------------------------|
SAVE HYD             NHYD=["corrig"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Corrigan Pond"]
*%-----------------|-------------------------------------------------------------|
*#*****************************************************************************
*#     Corrigan Pond 1
*#     - Rating curve obtained from Barrhaven South MSS modeling
*#     - Tributary Drainage Area to MSS Pond 1 = 145 ha
*#*****************************************************************************
*ROUTE RESERVOIR      NHYDout=["MS_P1"],   NHYDin=["CORRIG"],
*                     RDT=[1](min),
*                           TABLE of ( OUTFLOW-STORAGE ) values
*                                      (cms) - (ha-m)
*                                    [    0.0 ,   0.0 ]
*                                    [    0.06 ,  0.58]
*                                    [    -1   ,   -1   ]  (max twenty pts)
*                           NHYDovf=["P1-OVF"]
*%-----------------|-------------------------------------------------------------|
*ADD HYD              NHYDsum=["SN_CO"], NHYDs to add=["N_TO"+"P1-OVF"+"MS_P1"]
*%-----------------|-------------------------------------------------------------|
*SAVE HYD             NHYD=["SN_CO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
*                     HYD_COMMENT=["Total Flows at Corrigan Drain"]
*%-----------------|-------------------------------------------------------------|
*#
*# Hydrograph from Corrigan Drain routed to Jockvale Road
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
*#
ROUTE CHANNEL        NHYDout=["N_MJ"] ,NHYDin=["corrig"] ,
                     RDT=[1](min),
                     CHLGTH=[580](m),   CHSLOPE=[0.4448](%),
                                          FPSLOPE=[0.4448](%),
                     SECNUM=[1.0],          NSEG=[3]
                     ( SEGROUGH, SEGDIST (m))=
                       [0.075,-17.72
                       -0.045,17.72
                       0.075,80.62] NSEG times
                     ( DISTANCE (m), ELEVATION (m))=
                     [-83.32,  90.00]
                     [-81.36,  89.50]
                     [-79.12,  89.00]
```

```
                        [-76.13,  88.50]
                        [-20.46,  88.00]
                        [-19.36,  87.50]
                        [-18.51,  87.00]
                        [-17.72,  86.50]
                        [-11.95,  85.24]
                        [-0.11,  85.12]
                        [11.49,  85.20]
                        [17.72,  86.50]
                        [19.74,  87.00]
                        [21.22,  87.50]
                        [22.68,  88.00]
                        [24.28,  88.50]
                        [26.79,  89.00]
                        [71.98,  90.00]
                        [80.62,  90.50]
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Catchment MILLS
*#     - To SWM Facility north of the Jock
*#     - Primarily residental development
*#################################################################################
CONTINUOUS STANDHYD NHYD=["MILLS"], DT=[1]min, AREA=[175.99](ha),
                        XIMP=[0.38], TIMP=[0.38], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[74],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[1118.123](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------------|
*#################################################################################
*#     Chapman Mills SWM Pond
*#     - Rating curve obtained from CCL hydraulic modeling
*#################################################################################
ROUTE RESERVOIR     NHYDout=["MILL_P"],   NHYDin=["MILLS"],
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                        (cms) - (ha-m)
                                    [    0.0 ,   0.0 ]
                                    [    0.01 ,  0.01]
                                    [    0.05 ,  0.06]
                                    [    0.09 ,  0.11]
                                    [    0.13 ,  0.15]
                                    [    0.18 ,  0.19]
                                    [    0.28 ,  0.28]
                                    [    0.37 ,  0.34]
                                    [    0.45 ,  0.40]
                                    [    0.51 ,  0.44]
                                    [    0.56 ,  0.47]
                                    [    0.64 ,  0.52]
                                    [    0.76 ,  0.59]
                                    [    0.86 ,  0.65]
                                    [    1.09 ,  0.78]
                                    [    1.44 ,  0.96]
                                    [    3.18 ,  1.84]
                                    [    4.05 ,  2.31]
                                    [    -1   ,  -1   ]  (max twenty pts)
                              NHYDovf=["MIL-OV"]
*%----------------|---------------------------------------------------------------|
ADD HYD             NHYDsum=["SN_MI"], NHYDs to add=["N_MI"+"MIL-OV"+"MILL_P"]
*%----------------|---------------------------------------------------------------|
SAVE HYD            NHYD=["SN_MI"],    # OF PCYCLES=[-1],   ICASEsh=[1]
```

```
                        HYD_COMMENT=["Total Flows at Jockvale Road"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Jockvale Road routed to Heart's Desire
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 689
*#
ROUTE CHANNEL           NHYDout=["N_DE"] ,NHYDin=["SN_MI"] ,
                        RDT=[1](min),
                        CHLGTH=[1962](m),   CHSLOPE=[0.2227](%),
                                              FPSLOPE=[0.2227](%),
                        SECNUM=[1.0],         NSEG=[3]
                        ( SEGROUGH, SEGDIST(m))=
                          [0.075,-17.56
                          -0.045,18.27
                          0.075,32.51] NSEG times
                        ( DISTANCE(m), ELEVATION(m))=
                        [-54.07, 85.00]
                        [-39.43, 84.50]
                        [-28.30, 84.00]
                        [-24.12, 83.50]
                        [-22.30, 83.00]
                        [-20.55, 82.50]
                        [-17.56, 82.00]
                        [-12.63, 81.22]
                        [-0.11, 80.75]
                        [11.55, 81.22]
                        [18.27, 82.00]
                        [19.82, 82.50]
                        [22.48, 83.00]
                        [27.90, 83.50]
                        [29.31, 84.00]
                        [30.81, 84.50]
                        [32.51, 85.00]
*%----------------|---------------------------------------------------------|
*#************************************************************************
*#     Catchment DESIRE
*#     - To Jock River (north of the Jock)
*#     - Rural-estate subdivision (Heart's Desire Community)
*#************************************************************************
CONTINUOUS STANDHYD NHYD=["DESIRE"], DT=[1]min, AREA=[23.78](ha),
                        XIMP=[0.25], TIMP=[0.25], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[77],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[400](m), MNI=[0.013], SCI=[0](min),
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),  IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
*#************************************************************************
*#     Catchment JOCKVA
*#     - To Jockvale SWM Facility
*#     - Residential development & golf course
*#     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
*#       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two
areas JOCKVA and EX-LAND 32.5 ha as per IBI GROUP, July 2008.
*#************************************************************************
CONTINUOUS STANDHYD NHYD=["JOCKVA"], DT=[1]min, AREA=[225.13](ha),
                        XIMP=[0.50], TIMP=[0.50], DWF=[0](cms), LOSS=[2],
                        SCS curve number CN=[74],
                        Pervious   surfaces: IAper=[4.67](mm), SLPP=[1](%),
                                LGP=[40](m), MNP=[0.25], SCP=[0](min),
                        Impervious surfaces: IAimp=[1.57](mm), SLPI=[1](%),
                                LGI=[1310.55](m), MNI=[0.013], SCI=[0](min),
```

```
                        Continuous simulation parameters:
                        IaRECper=[4](hrs),   IaRECimp=[4](hrs),
                        SMIN=[-1](mm),   SMAX=[-1](mm), SK=[0.010]/(mm),
                        InterEventTime=[18](hrs),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["JOCKVA-TO"], NHYDs to
add=["EX-LAND-MN"+"JOCKVA"+"B2-MJ"+"B3-MJ"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["JOCKVA-TO"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at KB first pond"]
*%----------------|---------------------------------------------------------|
*#*************************************************************************
*#    Jockvale SWM Facility
*#    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
*#*************************************************************************
ROUTE RESERVOIR         NHYDout=["JOCK_P"],   NHYDin=["JOCKVA-TO"],
                        RDT=[1](min),
                              TABLE of ( OUTFLOW-STORAGE ) values
                                    (cms) - (ha-m)
                                 [    0.0 ,   0.0 ]
                                 [    0.27 ,  0.03]
                                 [    0.28 ,  0.55]
                                 [    0.29 ,  1.14]
                                 [    0.30 ,  1.80]
                                 [    0.31 ,  2.32]
                                 [    1.12 ,  2.87]
                                 [    2.92 ,  3.45]
                                 [    4.64 ,  4.07]
                                 [    6.69 ,  4.72]
                                 [    9.02 ,  5.39]
                                 [    11.62 ,  6.10]
                                 [    14.42 ,  6.85]
                                 [    17.45 ,  7.62]
                                 [    20.69 ,  8.44]
                                 [    24.08 ,  9.28]
                                 [    27.68 ,  10.17]
                                 [    -1   ,   -1   ]  (max twenty pts)
                              NHYDovf=["JO-OVF"]
*%----------------|---------------------------------------------------------|
ADD HYD                 NHYDsum=["SN_DE"], NHYDs to add=["N_DE"+"DESIRE"+"JO-OVF"+"JOCK_P"]
*%----------------|---------------------------------------------------------|
SAVE HYD                NHYD=["SN_DE"],    # OF PCYCLES=[-1],   ICASEsh=[1]
                        HYD_COMMENT=["Total Flows at Heart's Desire"]
*%----------------|---------------------------------------------------------|
*#
*# Hydrograph from Heart's Desire routed to Rideau River
*# Channel X-Section obtained from RVCA Hydraulic Model - Station 0
*#
ROUTE CHANNEL           NHYDout=["N1"] ,NHYDin=["SN_DE"] ,
                        RDT=[1](min),
                        CHLGTH=[563](m),   CHSLOPE=[0.9668](%),
                                              FPSLOPE=[0.9668](%),
                        SECNUM=[1.0],         NSEG=[3]
                        ( SEGROUGH, SEGDIST (m))=
                          [0.075,-30.20
                          -0.045,30.20
                          0.075,48.48] NSEG times
                        ( DISTANCE (m), ELEVATION (m))=
                        [-98.46,  81.50]
                        [-92.24,  81.00]
                        [-86.88,  80.50]
                        [-81.54,  80.00]
                        [-74.36,  79.50]
                        [-63.54,  79.00]
                        [-39.23,  78.50]
                        [-34.51,  78.00]
```

```
                        [-33.01,  77.50]
                        [-30.20,  77.00]
                        [-13.42,  76.18]
                        [-1.14,  76.09]
                        [17.06,  76.18]
                        [30.20,  77.00]
                        [32.95,  77.50]
                        [34.06,  78.00]
                        [35.11,  78.50]
                        [36.32,  79.00]
                        [37.74,  79.50]
                        [48.48,  81.50]
*%----------------|---------------------------------------------------------|
*#########################################################################
*#     Catchment S-2
*#     - To Jock River (north and south)
*#     - Undeveloped floodplain and river
*#########################################################################
CONTINUOUS NASHYD    NHYD=["S-2"], DT=[1]min, AREA=[102.94](ha),
                     DWF=[0](cms), CN/C=[72],  IA=[4.67](mm),
                     N=[3], TP=[0.40]hrs,
                     Continuous simulation parameters:
                     IaRECper=[4](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.010]/(mm),
                     InterEventTime=[12](hrs)
                     Baseflow simulation parameters:
                     BaseFlowOption=[1] ,
                     InitGWResVol=[50](mm), GWResK=[0.96](mm/day/mm)
                     VHydCond=[0.055](mm/hr),    END=-1
*%----------------|---------------------------------------------------------|
ADD HYD              NHYDsum=["SN_N1"], NHYDs to add=["N1"+"S-2"]
*%----------------|---------------------------------------------------------|
SAVE HYD             NHYD=["SN_N1"],    # OF PCYCLES=[-1],  ICASEsh=[1]
                     HYD_COMMENT=["Total Flows at Rideau River"]
*%----------------|---------------------------------------------------------|
*########################################################################
*% 5 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[5]
*%                    ["C24SC005.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 10 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[10]
*%                    ["C24SC010.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 25 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[25]
*%                    ["C24SC025.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 50 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[50]
*%                    ["C24SC050.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 3 hr Chicago storm based on OTTAWA CDA IDF Curves
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                    ["100YC3H.STM"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 24 hr SCS storm based on OTTAWA CDA IDF Curves
START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                    ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
*%----------------|---------------------------------------------------------|
*% 100 yr, 3 hr Chicago storm based on OTTAWA CDA IDF Curves
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[100]
*%                    ["C24SC100.stm"] <--storm filename, one per line for NSTORM time
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[101]
*%                    ["A24SC100.stm"] <--storm filename, one per line for NSTORM time
*START                TZERO=[0.0],  METOUT=[2],  NSTORM=[1],  NRUN=[102]
```

```
*%                  ["A24SC100_60.stm"] <--storm filename, one per line for NSTORM time
FINISH

```

```
00001>  ================================================================================
00002>
00003>  SSSSS    W    W   M   M   H   H   Y   Y    M   M     OOO          222     000    11    5555    ========
00004>  S        W    W   MM MM   H   H    Y Y     MM MM    O   O        2   2   0   0  111   5
00005>  SSSSS    W W W   M M M   HHHHH     Y      M M M    O   O            2    0   0   11   5        Ver 5.500
00006>      S    W W W   M   M   H   H     Y      M   M    O   O        222     0   0   11   555     FEB 2015
00007>  SSSSS     W W    M   M   H   H     Y      M   M     OOO         2       0   0   11      5    ========
00008>                                                                  2       0   0   11      5    # 2549237
00009>           StormWater Management HYdrologic Model                 222     000    11    555    ========
00010>
00011>  ********************************************************************************
00012>  **********                                                            **********
00013>  **********  A single event and continuous hydrologic simulation model **********
00014>  **********       based on the principles of HYMO and its successors   **********
00015>  **********                    OTTHYMO-83 and OTTHYMO-89.               **********
00016>  **********                                                            **********
00017>  ********** Distributed by:  J. F. Sabourin and Associates Inc.         **********
00018>  **********                  Ottawa,  Ontario: (613) 836-3884          **********
00019>  **********                  Gatineau, Quebec: (819) 243-6858          **********
00020>  **********                  E-Mail:  swmhymo@jfsa.Com                 **********
00021>  ********************************************************************************
00022>
00023>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024>  ++++++++++++++++++  Licensed user: JFSAinc.                  ++++++++++++++++++
00025>  ++++++++++++++++++           Ottawa                SERIAL#: 2549237          ++++++++++++++++++
00026>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028>  ********************************************************************************
00029>  **********                                                            **********
00030>  **********              ++++++ PROGRAM ARRAY DIMENSIONS ++++++        **********
00031>  **********              Maximum value for ID numbers  :  11           **********
00032>  **********              Max. number of rainfall points: 105408        **********
00033>  **********              Max. number of flow points    : 105408        **********
00034>  ********************************************************************************
00035>
00036>  **********                S U M M A R Y   O U T P U T                 **********
00037>  ********************************************************************************
00038>  *                  RUN DATE: 2021-03-04       TIME: 11:57:49       RUN COUNTER: 002084          *
00039>  ********************************************************************************
00040>  * Input   file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO\SMR-Model\updated*
00041>  *                3\SMR_S-1_SDR-Fr_SD.dat                                                       *
00042>  * Output  file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO\SMR-Model\updated*
00043>  *                3\SMR_S-1_SDR-Fr_SD.out                                                       *
00044>  * Summary file: T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO\SMR-Model\updated*
00045>  *                3\SMR_S-1_SDR-Fr_SD.sum                                                       *
00046>  * User comments:                                                                             *
00047>  * 1:_____________________________________________________________________________________*
00048>  * 2:_____________________________________________________________________________________*
00049>  * 3:_____________________________________________________________________________________*
00050>  ********************************************************************************
00051>
00052>
00053> #*******************************************************************************
00054> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00055> #*******************************************************************************
00056> #  Project Name: [Jock River]      Project Number: [1474-16]
00057> #  Date        : 04-03-2021
00058> #  Modeller    : [MM]
00059> #  Company     : JFSAinc.
00060> #  License #   : 2549237
00061> #*******************************************************************************
00062> # CALIBRATION OF SUMMER MODEL PARAMETERS
00063> # USING CONTINUOUS SIMULATIONS
00064> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00065> # Use data collected from May 1st to July 14, 2003
00066> # 2020-11-30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0.1 instead of 0.0001)
00067> # 2020-12-01 correct pond curve values
00068> # 2020-12-01 change W_CLAR_BRAZ_XIMP to 0.55, SLPI=[0.5]/(% (impervious slope), and LGI up to 700m
00069> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TOT"], NHYDin=["SN_TOT"]) from 0.033 %(as per S
00070> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
00071> # ------------------------------------------------------------------------------
00072>    ** END OF RUN :  1
00073>
00074> ********************************************************************************
00075>
00076>
00077>
00078>
00079>
00080>  RUN#: COMMAND#
00081> R0002: CO0001-------------------------------------------------------------------------
00082>       START
00083>        [TZERO =     .00 hrs on      0]
00084>        [METOUT=   2    (1=imperial, 2=metric output)]
00085>        [NSTORM=   1 ]
00086>        [NRUN  = 0002 ]
00087> #*******************************************************************************
00088> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00089> #*******************************************************************************
00090> #  Project Name: [Jock River]      Project Number: [1474-16]
00091> #  Date        : 04-03-2021
00092> #  Modeller    : [MM]
00093> #  Company     : JFSAinc.
00094> #  License #   : 2549237
00095> #*******************************************************************************
00096> # CALIBRATION OF SUMMER MODEL PARAMETERS
00097> # USING CONTINUOUS SIMULATIONS
00098> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
00099> # Use data collected from May 1st to July 14, 2003
00100> # 2020-11-30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0.1 instead of 0.0001)
00101> # 2020-12-01 correct pond curve values
00102> # 2020-12-01 change W_CLAR_BRAZ_XIMP to 0.55, SLPI=[0.5]/(% (impervious slope), and LGI up to 700m
00103> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TOT"], NHYDin=["SN_TOT"]) from 0.033 %(as per S
00104> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
00105> # ------------------------------------------------------------------------------
00106> R0002: CO0002-------------------------------------------------------------------------
00107>       READ STORM
00108>        Filename = storm001
00109>        Comment  = Pluie SCS de 24 hres 1:2 ans pour Ottawa CDA
00110>        [SDI=10.00:SDUR=  24.00:PTOT=  45.51]
00111> R0002: CO0003-------------------------------------------------------------------------
00112>       MODIFY STORM
00113>        [RFACT=   1.00:TSHIFT= 960.00 min]
00114>        [SDI=10.00:SDUR=  40.00:PTOT=  45.51]
00115> R0002: CO0004-------------------------------------------------------------------------
00116>       DEFAULT VALUES
00117>        Filename = T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO\SMR-Model\updated3\CitiGate.DEF
00118>        [CASEdv  = 1 (read and print data)
00119>        FileTitle= File comment: [Based onvarious calibration exercises in Onta
00120>                   THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
00121>        Horton's infiltration equation parameters:
00122>        [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=   .00 mm]
00123>        Parameters for PERVIOUS surfaces in STANDHYD:
00124>        [IAper=   4.67 mm] [LGP=50.00 m] [MNP=  .250]
00125>        Parameters for IMPERVIOUS surfaces in STANDHYD:
00126>        [IAimp=   1.57 mm] [CLI= 1.50]   [MNI=  .013]
00127>        Parameters used in NASHYD:
00128>        [Ia=   4.67 mm] [N= 3.00]
00129>        Average monthly Pan Evaporation data in    (mm)
00130>     JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
00131>     .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
00132>        Average monthly Potential Evapotranspiration in    (mm)
00133>     JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
00134>     .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
00135> R0002: CO0005-------------------------------------------------------------------------
00136>       COMPUTE API
00137>        [APIini= 50.00:  APIkdy=  .8500:  APIkdt= .9989]
00138>        [APImax= 80.12:  APIavg=  56.74:  APImin= 44.87]
00139> #
00140> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00141> # of 1.32
00142> R0002: CO0006-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00143>       CONTINUOUS NASHYD      1.0 01:JR_HW       3680.00     6.204 No_date   37:06   11.47 .252      .000
00144>        [CN= 64.0: N= 3.00: Tp= 7.13]
00145>        [IaREC= 4.00: SMN= 57.05: SMX=380.32: SK= .010]
00146>        [InterEventTime=  12.00]
00147> #
00148> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00149> # of 1.32
00150> R0002: CO0007-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00151>       CONTINUOUS NASHYD      1.0 01:SW_13        971.00     2.187 No_date   32:37   10.75 .236      .000
00152>        [CN= 61.0: N= 3.00: Tp= 3.76]
00153>        [IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
00154>        [InterEventTime=  12.00]
00155> #
00156> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00157> # of 1.80
00158> R0002: CO0008-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00159>       CONTINUOUS NASHYD      1.0 01:JR_GWM      3074.00     3.218 No_date   39:59    9.43 .207      .000
00160>        [CN= 55.0: N= 3.00: Tp=11.33]
00161>        [IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
00162>        [InterEventTime=  12.00]
00163> R0002: CO0009-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00164>       CONTINUOUS NASHYD      1.0 01:JR_ASH      1781.00     5.504 No_date   32:45   13.94 .306      .000
00165>        [CN= 72.0: N= 3.00: Tp= 3.91]
00166>        [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00167>        [InterEventTime=  12.00]
00168> R0002: CO0010-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00169>       CONTINUOUS NASHYD      1.0 01:SW_11        500.00     2.720 No_date   29:22   11.98 .263      .000
00170>        [CN= 66.0: N= 3.00: Tp= 1.24]
00171>        [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00172>        [InterEventTime=  12.00]
00173> #
00174> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00175> # of 1.80
00176> R0002: CO0011-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00177>       CONTINUOUS NASHYD      1.0 01:NC_CK       1917.00     4.042 No_date   34:34   11.98 .263      .000
00178>        [CN= 66.0: N= 3.00: Tp= 5.29]
00179>        [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00180>        [InterEventTime=  12.00]
00181> #
00182> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00183> # of 1.52
00184> R0002: CO0012-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00185>       CONTINUOUS NASHYD      1.0 01:SW_10       5666.00    11.228 No_date   38:07   13.94 .306      .000
00186>        [CN= 72.0: N= 3.00: Tp= 8.00]
00187>        [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00188>        [InterEventTime=  12.00]
00189> #
00190> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00191> # of 1.75
00192> R0002: CO0013-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00193>       CONTINUOUS NASHYD      1.0 01:KG_CK       8376.00    11.072 No_date   39:59   11.98 .263      .000
00194>        [CN= 66.0: N= 3.00: Tp=11.66]
00195>        [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00196>        [InterEventTime=  12.00]
00197> #
00198> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00199> # of 1.68
00200> R0002: CO0014-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00201>       CONTINUOUS NASHYD      1.0 01:SW_9        1132.00     4.434 No_date   30:56   13.35 .293      .000
00202>        [CN= 70.0: N= 3.00: Tp= 2.51]
00203>        [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
00204>        [InterEventTime=  12.00]
00205> #
00206> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00207> # of 1.82
00208> R0002: CO0015-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00209>       CONTINUOUS NASHYD      1.0 01:NC_CK       4464.00     5.504 No_date   39:59   10.98 .241      .000
00210>        [CN= 62.0: N= 3.00: Tp=11.32]
00211>        [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
00212>        [InterEventTime=  12.00]
00213> #
00214> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00215> # of 1.80
00216> R0002: CO0016-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00217>       CONTINUOUS NASHYD      1.0 01:SW_8         131.00      .805 No_date   28:57   11.22 .247      .000
00218>        [CN= 63.0: N= 3.00: Tp=  .90]
00219>        [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
00220>        [InterEventTime=  12.00]
00221> #
00222> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00223> # of 1.65
00224> R0002: CO0017-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00225>       CONTINUOUS NASHYD      1.0 01:HB_DR       3854.00     6.242 No_date   38:46   11.98 .263      .000
00226>        [CN= 66.0: N= 3.00: Tp= 8.42]
00227>        [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
00228>        [InterEventTime=  12.00]
00229> #
00230> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00231> # of 1.82
00232> R0002: CO0018-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00233>       CONTINUOUS NASHYD      1.0 01:SW_7        3197.00     4.651 No_date   36:31    9.85 .217      .000
00234>        [CN= 57.0: N= 3.00: Tp= 6.65]
00235>        [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
00236>        [InterEventTime=  12.00]
00237> #
00238> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00239> # of 1.75
00240> R0002: CO0019-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00241>       CONTINUOUS NASHYD      1.0 01:SW_6         165.00      .413 No_date   33:07   12.24 .269      .000
00242>        [CN= 67.0: N= 3.00: Tp= 4.18]
00243>        [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
00244>        [InterEventTime=  12.00]
00245> #
00246> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00247> # of 1.67
00248> R0002: CO0020-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00249>       CONTINUOUS NASHYD      1.0 01:VG_DR       1332.00     3.148 No_date   35:23   13.94 .306      .000
00250>        [CN= 72.0: N= 3.00: Tp= 5.95]
00251>        [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
00252>        [InterEventTime=  12.00]
00253> R0002: CO0021-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00254>       CONTINUOUS NASHYD      1.0 01:SW_5         224.00     2.597 No_date   28:45   15.91 .350      .000
00255>        [CN= 77.0: N= 3.00: Tp=  .75]
00256>        [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00257>        [InterEventTime=  12.00]
00258> #
00259> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00260> # of 1.20
00261> R0002: CO0022-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00262>       CONTINUOUS NASHYD      1.0 01:FL_CK       4945.00    14.839 No_date   33:25   14.57 .320      .000
00263>        [CN= 74.0: N= 3.00: Tp= 4.45]
00264>        [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
00265>        [InterEventTime=  12.00]
00266> R0002: CO0023-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00267>       CONTINUOUS NASHYD      1.0 01:SW_5A2        20.00      .309 No_date   28:36   17.79 .391      .000
00268>        [CN= 81.0: N= 3.00: Tp=  .62]
00269>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00270>        [InterEventTime=  12.00]
00271> #
00272> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
00273> # of 1.61
00274> R0002: CO0024-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00275>       CONTINUOUS NASHYD      1.0 01:SW_5A1      1412.00     3.090 No_date   38:04   15.22 .334      .000
00276>        [CN= 75.0: N= 3.00: Tp= 8.00]
00277>        [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
00278>        [InterEventTime=  12.00]
00279> R0002: CO0025-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00280>       CONTINUOUS NASHYD      1.0 01:SW_4         585.00     4.325 No_date   29:58   17.79 .391      .000
00281>        [CN= 81.0: N= 3.00: Tp= 1.75]
00282>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00283>        [InterEventTime=  12.00]
00284> R0002: CO0026-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00285>       CONTINUOUS NASHYD      1.0 01:LM_CK       1021.00     5.747 No_date   30:50   17.39 .382      .000
00286>        [CN= 80.0: N= 3.00: Tp= 2.46]
00287>        [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
00288>        [InterEventTime=  12.00]
00289> R0002: CO0027-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00290>       CONTINUOUS NASHYD      1.0 01:SW_2         177.00     2.052 No_date   28:45   15.91 .350      .000
00291>        [CN= 77.0: N= 3.00: Tp=  .75]
00292>        [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
00293>        [InterEventTime=  12.00]
00294> R0002: CO0028-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00295>       CONTINUOUS NASHYD      1.0 01:SM_DR       1122.00     5.337 No_date   31:50   17.79 .391      .000
00296>        [CN= 81.0: N= 3.00: Tp= 3.25]
00297>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
00298>        [InterEventTime=  12.00]
00299> R0002: CO0029-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00300>       CONTINUOUS NASHYD      1.0 01:MO_DR       2737.00    11.528 No_date   31:35   15.56 .342      .000
00301>        [CN= 76.0: N= 3.00: Tp= 3.03]
00302>        [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
00303>        [InterEventTime=  12.00]
00304> #
00305> # Routing hydrographs
00306> #
00307> # Starting with the addition of Jock River Headwater and Subwatershed 13
00308> #
00309> R0002: CO0030-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00310>       ADD HYD                1.0 02:JR_HW       3680.00     6.204 No_date   37:06   11.47  n/a      .000
00311>                          +   1.0 02:SW_13        971.00     2.187 No_date   32:37   10.75  n/a      .000
00312>                        SUM=  1.0 01:S_N13       4651.00     7.871 No_date   35:37   11.32  n/a      .000
00313> #
00314> # Sum of hydrographs from Node 13 routed to Node 13A
00315> # (Approximated cross-section - see cross-section 258)
00316> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00317> #
00318> R0002: CO0031-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00319>       ROUTE CHANNEL     ->     1.0 02:S_N13       4651.00     7.871 No_date   35:37   11.32  n/a      .000
00320>        [RDT= 1.00]  out<-     1.0 01:N13A        4651.00     6.258 No_date   39:59   11.32  n/a      .000
00321>        [L/S/n= 9074./ .022/ .040]
00322>        [Vmax=  .429: Dmax= 2.557]
00323> #
00324> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
00325> #
00326> R0002: CO0032-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00327>       ADD HYD                1.0 02:N13A        4651.00     6.258 No_date   39:59   11.32  n/a      .000
00328>                          +   1.0 02:JR_GWM      3074.00     3.218 No_date   39:59    9.43  n/a      .000
00329>                        SUM=  1.0 01:SN13A       7725.00     9.475 No_date   39:59   10.57  n/a      .000
00330> #
00331> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
00332> #
00333> R0002: CO0033-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00334>       ROUTE RESERVOIR   ->     1.0 02:SN13A       7725.00     9.475 No_date   39:59   10.57  n/a      .000
00335>                         out <=  1.0 01:RES_GM      7725.00     2.619 No_date   55:07   10.57  n/a      .000
00336>        {MxStoUsed=  .3585E+02  m3}
00337> #
00338> R0002: CO0034-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00339>       SAVE HYD               1.0 01:RES_GM      7725.00     2.619 No_date   55:07   10.57  n/a      .000
00340>        fname :H_RESGM
00341>        remark: Outflow from Res GM
00342> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
00343> # (Approximated cross-section - see cross-section 258)
00344> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00345> R0002: CO0035-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00346>       ROUTE CHANNEL     ->     1.0 02:RES_GM      7725.00     2.619 No_date   55:07   10.57  n/a      .000
00347>        [RDT= 1.00]  out<-     1.0 01:N12         7725.00     2.609 No_date   58:09   10.57  n/a      .000
00348>        [L/S/n= 5926./ .076/ .040]
00349>        [Vmax=  .501: Dmax= 1.329]
00350> #
00351> # Addition of Subwatershed Jock River at Ashton to Node 12
00352> #
00353> R0002: CO0036-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00354>       ADD HYD                1.0 02:N12         7725.00     2.609 No_date   58:08   10.57  n/a      .000
00355>                          +   1.0 02:JR_ASH      1781.00     5.504 No_date   32:45   13.94  n/a      .000
00356>                        SUM=  1.0 01:S_N12       9506.00     7.458 No_date   32:50   11.20  n/a      .000
00357> R0002: CO0037-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00358>       SAVE HYD               1.0 01:S_N12       9506.00     7.458 No_date   32:50   11.20  n/a      .000
00359>        fname :H_SN12
00360>        remark: flow at S_N12 near Ashton
00361> #
00362> # Sum of hydrographs from Node 12 routed to Node 11
00363> # (Approximated cross-section - see cross-section 258)
00364> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
00365> #
00366> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
00367> #
00368> R0002: CO0038-------------DTmin-ID:NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00369>       ROUTE CHANNEL     ->     1.0 02:S_N12       9506.00     7.458 No_date   32:50   11.20  n/a      .000
00370>        [RDT= 1.00]  out<-     1.0 01:Dum11       9506.00     7.379 No_date   33:12   11.20  n/a      .000
00371>        [L/S/n=  972./ .054/ .040]
00372>        [Vmax=  .591: Dmax= 2.108]
00373> #
00374> # Addition of Subwatershed 11 and No Name Creek to Node 11
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00375> #
00376> R0002: CO0039-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00377>      ADD HYD                1.0 02: Dam1          9506.00     7.379 No_date   33:12   11.20  n/a      .000
00378>                        +    1.0 02: SW_11          500.00     2.720 No_date   29:22   11.98  n/a      .000
00379>                        +    1.0 02: NN_CK         1917.00     4.042 No_date   34:34   11.98  n/a      .000
00380>                   SUM=      1.0 01: S_N11        11923.00    12.077 No_date   33:14   11.36  n/a      .000
00381> #
00382> # Sum of hydrographs from Node 11 routed to Node 10
00383> # Section 1
00384> #
00385> R0002: CO0040-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00386>      ROUTE CHANNEL     ->     1.0 02: S_N11        11923.00    12.077 No_date   33:14   11.36  n/a      .000
00387>        [ RDT= 1.00] out <-     1.0 01: N10        11923.00     8.276 No_date   39:46   11.36  n/a      .000
00388>          [ L/ S/ n=14028. /  .157/ .040]
00389>          { Vmx=  .462: Dmx=  .886}
00390> #
00391> # Addition of Subwatersheds 10 to Node 10
00392> #
00393> R0002: CO0041-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00394>      ADD HYD                1.0 02: N10        11923.00     8.276 No_date   39:46   11.36  n/a      .000
00395>                        +    1.0 02: SW_10        5666.00    11.228 No_date   38:07   13.94  n/a      .000
00396>                   SUM=      1.0 01: S_N10      17589.00    19.451 No_date   38:31   12.19  n/a      .000
00397> R0002: CO0042-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00398>      SAVE HYD               1.0 01: S_N10      17589.00    19.451 No_date   38:31   12.19  n/a      .000
00399>          fname : H_SN10
00400>          remark: flow at S_N10:  N10 + SW10
00401> # Addition of Kings Creek to S_N10
00402> #
00403> R0002: CO0043-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00404>      ADD HYD                1.0 02: S_N10      17589.00    19.451 No_date   38:31   12.19  n/a      .000
00405>                        +    1.0 02: KG_CK         8376.00    11.072 No_date   39:59   11.98  n/a      .000
00406>                   SUM=      1.0 01: S_N10A     25965.00    30.328 No_date   39:58   12.12  n/a      .000
00407> #
00408> # Sum of hydrographs from Node 10 routed to Node 9
00409> # Section 2
00410> #
00411> R0002: CO0044-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00412>      ROUTE CHANNEL     ->     1.0 02: S_N10A     25965.00    30.328 No_date   39:58   12.12  n/a      .000
00413>        [ RDT= 1.00] out <-     1.0 01: N9         25965.00    29.579 No_date   39:59   12.12  n/a      .000
00414>          [ L/ S/ n= 3982. /  .075/ .040]
00415>          { Vmx=  .595: Dmx=  1.208}
00416> #
00417> # Addition of Subwatershed 9 and Nichols Creek to Node 9
00418> #
00419> R0002: CO0045-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00420>      ADD HYD                1.0 02: N9         25965.00    29.579 No_date   39:59   12.12  n/a      .000
00421>                        +    1.0 02: SW_9          1132.00     4.434 No_date   30:56   13.35  n/a      .000
00422>                        +    1.0 02: NC_CK         4464.00     5.504 No_date   39:59   10.98  n/a      .000
00423>                   SUM=      1.0 01: S_N9         31561.00    36.313 No_date   39:59   12.00  n/a      .000
00424> #
00425> # Sum of hydrographs from Node 9 routed to Node 8
00426> # Section 3
00427> #
00428> R0002: CO0046-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00429>      ROUTE CHANNEL     ->     1.0 02: S_N9         31561.00    36.313 No_date   39:59   12.00  n/a      .000
00430>        [ RDT= 1.00] out <-     1.0 01: N8         31561.00    34.173 No_date   39:59   12.00  n/a      .000
00431>          [ L/ S/ n= 2269. /  .088/ .045]
00432>          { Vmx=  .418: Dmx=  1.281}
00433> #
00434> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
00435> #
00436> R0002: CO0047-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00437>      ADD HYD                1.0 02: N8         31561.00    34.173 No_date   39:59   12.00  n/a      .000
00438>                        +    1.0 02: SW_8          131.00      .805 No_date   28:57   11.22  n/a      .000
00439>                        +    1.0 02: HB_DR        3854.00     6.242 No_date   38:46   11.98  n/a      .000
00440>                   SUM=      1.0 01: S_N8         35546.00    40.474 No_date   39:59   12.00  n/a      .000
00441> #
00442> # Sum of hydrographs from Node 8 routed to Node 7
00443> # Section 4
00444> #
00445> R0002: CO0048-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00446>      ROUTE CHANNEL     ->     1.0 02: S_N8         35546.00    40.474 No_date   39:59   12.00  n/a      .000
00447>        [ RDT= 1.00] out <-     1.0 01: N7         35546.00    32.891 No_date   44:30   12.00  n/a      .000
00448>          [ L/ S/ n= 3750. /  .053/ .070]
00449>          { Vmx=  .208: Dmx=  1.651}
00450> #
00451> # Addition of Subwatershed 7 to Node 7
00452> #
00453> R0002: CO0049-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00454>      ADD HYD                1.0 02: N7         35546.00    32.891 No_date   44:30   12.00  n/a      .000
00455>                        +    1.0 02: SW_7          3197.00     4.651 No_date   36:31    9.85  n/a      .000
00456>                   SUM=      1.0 01: S_N7         38743.00    35.071 No_date   43:33   11.82  n/a      .000
00457> R0002: CO0050-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00458>      SAVE HYD               1.0 01: S_N7         38743.00    35.071 No_date   43:33   11.82  n/a      .000
00459>          fname : H_SN7
00460>          remark: flow at S_N7:  N7 + SW_7
00461> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
00462> # Storage area and volumes were estimated from available topo maps.
00463> # Release rate from Fen was assumed to be controlled by the downstream
00464> # river cross-section for summer conditions.  It is was assumed that for up to
00465> # 0.75 m of water, the main channel of the river provided the storage.  Above
00466> # this depth, the wetland starts to significantly store water.
00467> #
00468> R0002: CO0051-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00469>      ROUTE RESERVOIR ->     1.0 02: S_N7         38743.00    35.071 No_date   43:33   11.82  n/a      .000
00470>                   out <=    1.0 01: RES_RF       38743.00    23.265 No_date   55:09   11.82  n/a      .000
00471>          [ MxStok ed=  7801E+02   m3]
00472> R0002: CO0052-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00473>      SAVE HYD               1.0 01: RES_RF       38743.00    23.265 No_date   55:09   11.82  n/a      .000
00474>          fname : H_ResRF
00475>          remark: outflow of Richmond Fen
00476> #
00477> # Sum of hydrographs from Node 7 routed to Node 6
00478> # Section 5
00479> #
00480> R0002: CO0053-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00481>      ROUTE CHANNEL     ->     1.0 02: RES_RF       38743.00    23.265 No_date   55:09   11.82  n/a      .000
00482>        [ RDT= 1.00] out <-     1.0 01: N6         38743.00    23.228 No_date   56:38   11.82  n/a      .000
00483>          [ L/ S/ n= 3056. /  .082/ .025]
00484>          { Vmx=  .432: Dmx=  .808}
00485> #
00486> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
00487> #
00488> R0002: CO0054-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00489>      ADD HYD                1.0 02: N6         38743.00    23.228 No_date   56:38   11.82  n/a      .000
00490>                        +    1.0 02: SW_6          165.00      .413 No_date   33:07   12.24  n/a      .000
00491>                        +    1.0 02: VG_DR        1332.00     3.148 No_date   35:23   13.94  n/a      .000
00492>                   SUM=      1.0 01: S_N6         40240.01    23.318 No_date   39:59   11.89  n/a      .000
00493> #
00494> # Sum of hydrographs from Node 6 routed to Node 5
00495> # Section 6
00496> #
00497> R0002: CO0055-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00498>      ROUTE CHANNEL     ->     1.0 02: S_N6         40240.01    23.318 No_date   39:59   11.89  n/a      .000
00499>        [ RDT= 1.00] out <-     1.0 01: N5         40240.01    23.285 No_date   56:09   11.89  n/a      .000
00500>          [ L/ S/ n= 1852. /  .054/ .035]
00501>          { Vmx=  .378: Dmx=  .917}
00502> #
00503> # Addition of Subwatershed 5 and Flowing Creek to Node 5
00504> #
00505> R0002: CO0056-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00506>      ADD HYD                1.0 02: N5         40240.01    23.285 No_date   56:09   11.89  n/a      .000
00507>                        +    1.0 02: SW_5          224.00     2.597 No_date   28:45   15.91  n/a      .000
00508>                        +    1.0 02: FL_CK        4945.00    14.839 No_date   33:25   14.57  n/a      .000
00509>                   SUM=      1.0 01: S_N5         45409.01    33.166 No_date   37:08   12.20  n/a      .000
00510> #
00511> # Sum of hydrographs from Node 5 routed to Node 5A
00512> # Section 7
00513> #
00514> R0002: CO0057-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00515>      ROUTE CHANNEL     ->     1.0 02: S_N5         45409.01    33.166 No_date   37:08   12.20  n/a      .000
00516>        [ RDT= 1.00] out <-     1.0 01: N5A        45409.01    33.135 No_date   37:20   12.20  n/a      .000
00517>          [ L/ S/ n=  556. /  .090/ .040]
00518>          { Vmx=  .443: Dmx=  .937}
00519> #
00520> # Addition of Subwatershed 5AI and Subwatershed 5A2 to Node 5A
00521> #
00522> R0002: CO0058-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00523>      ADD HYD                1.0 02: N5A        45409.01    33.135 No_date   37:20   12.20  n/a      .000
00524>                        +    1.0 02: SW_5A2          20.00      .309 No_date   28:36   17.79  n/a      .000
00525>                        +    1.0 02: SW_5AI        1412.00     3.090 No_date   38:04   15.22  n/a      .000
00526>                   SUM=      1.0 01: S_N5A        46841.01    36.236 No_date   37:28   12.30  n/a      .000
00527> #
00528> # Sum of hydrographs from Node 5A routed to Node 4
00529> # Section 8
00530> #
00531> R0002: CO0059-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00532>      ROUTE CHANNEL     ->     1.0 02: S_N5A        46841.01    36.236 No_date   37:28   12.30  n/a      .000
00533>        [ RDT= 1.00] out <-     1.0 01: N4         46841.01    35.288 No_date   39:22   12.30  n/a      .000
00534>          [ L/ S/ n= 4630. /  .043/ .035]
00535>          { Vmx=  .695: Dmx=  2.844}
00536> #
00537> # Addition of Subwatershed 4 and Leamy Creek to Node 4
00538> #
00539> R0002: CO0060-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00540>      ADD HYD                1.0 02: N4         46841.01    35.288 No_date   39:22   12.30  n/a      .000
00541>                        +    1.0 02: SW_4          585.00     4.325 No_date   29:58   17.79  n/a      .000
00542>                        +    1.0 02: LM_CK        1021.00     5.747 No_date   30:50   17.39  n/a      .000
00543>                   SUM=      1.0 01: S_N4         48447.00    37.581 No_date   38:13   12.47  n/a      .000
00544> R0002: CO0061-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00545>      SAVE HYD               1.0 01: S_N4         48447.00    37.581 No_date   38:13   12.47  n/a      .000
00546>          fname : S_N4. 0002
00547>          remark: flow at S_N4
00548> #
00549> # Sum of hydrographs from Node 4 routed to Node 2
00550> # Section 9
00551> #
00552> R0002: CO0062-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00553>      ROUTE CHANNEL     ->     1.0 02: S_N4         48447.00    37.581 No_date   38:13   12.47  n/a      .000
00554>        [ RDT= 1.00] out <-     1.0 01: N2         48447.00    37.455 No_date   38:49   12.47  n/a      .000
00555>          [ L/ S/ n= 1667. /  .060/ .040]
00556>          { Vmx=  .715: Dmx=  2.845}
00557> #
00558> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
00559> #
00560> R0002: CO0063-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00561>      ADD HYD                1.0 02: N2         48447.00    37.455 No_date   38:49   12.47  n/a      .000
00562>                        +    1.0 02: SW_2          177.00     2.052 No_date   28:45   15.91  n/a      .000
00563>                        +    1.0 02: SM_DR        1122.00     5.337 No_date   31:50   17.79  n/a      .000
00564>                        +    1.0 02: MD_DR        2737.00    11.528 No_date   31:35   15.56  n/a      .000
00565>                   SUM=      1.0 01: S_N2         52483.00    46.294 No_date   33:33   12.76  n/a      .000
00566> R0002: CO0064-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00567>      SAVE HYD               1.0 01: S_N2         52483.00    46.294 No_date   33:33   12.76  n/a      .000
00568>          fname : H_SN2
00569>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
00570> #
00571> # Sum of hydrographs from Node 2 routed to Node 1
00572> # Section 10
00573> #
00574> ##########################################################################
00575> #
00576> # Hydrograph from Node 2 routed to Node 416
00577> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
00578> #
00579> R0002: CO0065-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00580>      ROUTE CHANNEL     ->     1.0 02: S_N2         52483.00    46.294 No_date   33:33   12.76  n/a      .000
00581>        [ RDT= 1.00] out <-     1.0 01: N_416      52483.00    45.431 No_date   35:37   12.76  n/a      .000
00582>          [ L/ S/ n= 2327. /  .050/ .055]
00583>          { Vmx=  .577: Dmx=  2.212}
00584> ##########################################################################
00585> #     Catchment SW1a
00586> #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
00587> #     - Undeveloped agricultural land
00588> ##########################################################################
00589> R0002: CO0066-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00590>      CONTINUOUS NASHYD      1.0 01: SW1a         536.42     1.885 No_date   31:21   13.01  .286      .000
00591>          [ CN= 72.0: N=  3.00: Tp=  .79]
00592>          [ IaREC= 4.00: SMN=  39.75: SMX=264.99: SK=  .010]
00593>          [ InterEventTime=  12.00]
00594> R0002: CO0067-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00595>      CONTINUOUS STANDHYD    1.0 01: S-1-Okeefe    44.93     3.420 No_date   28:04   32.20  .707      .000
00596>          [ XI MP=. 65: TI MP=. 65]
00597>          [ LOSS= 2 : CN=  75.0]
00598>          [ Pervious      area:  I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
00599>          [ Impervious    area:  I Aimp=  1. 57: SLPI =  . 75: LGI =  547. : MNI =. 013: SCI =    .0]
00600>          [ IaRECImp=   4. 00:  IaRECper=    4. 00]
00601>          [ SMN=  33. 81:  SMX=225. 43:  SK=  . 010]
00602> R0002: CO0068-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00603>      COMPUTE DUALHYD        1.0 01: S-1-Okeefe    44.93     3.420 No_date   28:04   32.20  n/a      .000
00604>        Major System    /    1.0 02: S-1-OkMI        .00      .000 No_date    0:00     .00  n/a      .000
00605>        Minor System    \    1.0 03: S-1-OkMN      44.93     3.420 No_date   28:04   32.20  n/a      .000
00606>          [ MjSysSto=. 0000E+00:  TotOrfVol=. 0000E+00:  N-Orf=    0:  TotDurOrf=    0. hrs]
00607> R0002: CO0069-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00608>      ADD HYD                1.0 02: S-1-OkMI        .00      .000 No_date    0:00     .00  n/a      .000
00609>                        +    1.0 02: S-1-OkMN      44.93     3.420 No_date   28:04   32.20  n/a      .000
00610>                   SUM=      1.0 01: S-1-OkS       44.93     3.420 No_date   28:04   32.20  n/a      .000
00611> R0002: CO0070-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00612>      ROUTE RESERVOIR ->     1.0 02: S-1-OkS       44.93     3.420 No_date   28:04   32.20  n/a      .000
00613>                   out <=    1.0 01: S-1-OkSR      44.93      .261 No_date   29:32   32.20  n/a      .000
00614>                overflow <=  1.0 03: S-1-OkSovf       .00      .000 No_date    0:00     .00  n/a      .000
00615>          [ MxStok ed=  8722E+00   m3,  N-Orf=    0,  TotDurOrf=    0. hrs]
00616> R0002: CO0071-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00617>      ADD HYD                1.0 02: N_416      52483.00    45.431 No_date   35:37   12.76  n/a      .000
00618>                        +    1.0 02: SW1a          536.42     1.885 No_date   31:21   13.01  n/a      .000
00619>                        +    1.0 02: S-1-OkSR      44.93      .261 No_date   29:32   32.20  n/a      .000
00620>                        +    1.0 02: S-1-OkSovf       .00      .000 No_date    0:00     .00  n/a      .000
00621>                   SUM=      1.0 01: SW_416     53064.36    46.727 No_date   35:24   12.78  n/a      .000
00622> R0002: CO0072-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00623>      SAVE HYD               1.0 01: SN_416     53064.36    46.727 No_date   35:24   12.78  n/a      .000
00624>          fname : SN_416. 0002
00625>          remark: Total Flows at Highway 416 before Station 7245
00626> #
00627> # Hydrograph from Node 416 routed to Node at Okeefe drain
00628> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
00629> #
00630> R0002: CO0073-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00631>      ROUTE CHANNEL     ->     1.0 02: SN_416     53064.36    46.727 No_date   35:24   12.78  n/a      .000
00632>        [ RDT= 1.00] out <-     1.0 01: N_OK       53064.36    46.720 No_date   35:24   12.78  n/a      .000
00633>          [ L/ S/ n=  497. /  .302/ .055]
00634>          { Vmx=  1. 191: Dmx=  1. 882}
00635> ##########################################################################
00636> #     Catchment OKEEFE
00637> #     - To O'Keefe drain (north of the Jock)
00638> #     - Developed with assumed 1335 imp.
00639> #     - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
00640> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
00641> ##########################################################################
00642> R0002: CO0074-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00643>      CONTINUOUS NASHYD      1.0 01: O-1           63.72      .305 No_date   28:59    9.62  .211      .000
00644>          [ CN= 61.0: N=  3.00: Tp=  .90]
00645>          [ IaREC= 4.00: SMN=  64.50: SMX=430.01: SK=  .010]
00646>          [ InterEventTime=  12.00]
00647> R0002: CO0075-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00648>      ROUTE CHANNEL     ->     1.0 02: O-1           63.72      .305 No_date   28:59    9.62  n/a      .000
00649>        [ RDT= 1.00] out <-     1.0 01: O-1R          63.72      .272 No_date   29:20    9.62  n/a      .000
00650>          [ L/ S/ n=  960. /  .630/ .043]
00651>          { Vmx=  .589: Dmx=  .212}
00652> R0002: CO0076-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00653>      CONTINUOUS NASHYD      1.0 01: O-2           28.61      .110 No_date   29:14    9.11  .200      .000
00654>          [ CN= 57.0: N=  3.00: Tp= 1.10]
00655>          [ IaREC= 4.00: SMN=  76.32: SMX=508.81: SK=  .010]
00656>          [ InterEventTime=  12.00]
00657> R0002: CO0077-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00658>      CONTINUOUS NASHYD      1.0 01: O-4           46.94      .126 No_date   29:02    7.06  .155      .000
00659>          [ CN= 49.0: N=  3.00: Tp=  .90]
00660>          [ IaREC= 4.00: SMN=104.59: SMX=697.25: SK=  .010]
00661>          [ InterEventTime=  12.00]
00662> R0002: CO0078-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00663>      ADD HYD                1.0 02: O-1R          63.72      .272 No_date   29:20    9.62  n/a      .000
00664>                        +    1.0 02: O-2           28.61      .110 No_date   29:14    9.11  n/a      .000
00665>                        +    1.0 02: O-4           46.94      .126 No_date   29:02    7.06  n/a      .000
00666>                   SUM=      1.0 01: OKF-N        139.27      .504 No_date   29:15    8.65  n/a      .000
00667> R0002: CO0079-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00668>      ROUTE CHANNEL     ->     1.0 02: OKF-N        139.27      .504 No_date   29:15    8.65  n/a      .000
00669>        [ RDT= 1.00] out <-     1.0 01: OKF-NR       139.27      .502 No_date   29:20    8.65  n/a      .000
00670>          [ L/ S/ n=  210. /  .810/ .043]
00671>          { Vmx=  .722: Dmx=  .437}
00672> R0002: CO0080-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00673>      CONTINUOUS NASHYD      1.0 01: O-6           16.46      .042 No_date   28:47    6.40  .141      .000
00674>          [ CN= 43.0: N=  3.00: Tp=  .70]
00675>          [ IaREC= 4.00: SMN=134.47: SMX=896.47: SK=  .010]
00676>          [ InterEventTime=  12.00]
00677> R0002: CO0081-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00678>      CONTINUOUS STANDHYD    1.0 01: O-3           39.67      .402 No_date   28:28   11.03  .242      .000
00679>          [ XI MP=. 15: TI MP=. 30]
00680>          [ LOSS= 2 : CN=  50.0]
00681>          [ Pervious      area:  I Aper= 4. 67: SLPP=  . 32: LGP=  440. : MNP=. 035: SCP=    .0]
00682>          [ Impervious    area:  I Aimp=  1. 57: SLPI =  . 32: LGI =1880. : MNI =. 013: SCI =    .0]
00683>          [ IaRECImp=   4. 00:  IaRECper=    4. 00]
00684>          [ SMN=  99. 77:  SMX=665. 12:  SK=  . 010]
00685> R0002: CO0082-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00686>      CONTINUOUS STANDHYD    1.0 01: O-5           60.63      .937 No_date   28:10   12.08  .265      .000
00687>          [ XI MP=. 13: TI MP=. 26]
00688>          [ LOSS= 2 : CN=  61.0]
00689>          [ Pervious      area:  I Aper= 4. 67: SLPP=1. 38: LGP=  550. : MNP=. 035: SCP=    .0]
00690>          [ Impervious    area:  I Aimp=  1. 57: SLPI =1. 38: LGI =1450. : MNI =. 013: SCI =    .0]
00691>          [ IaRECImp=   4. 00:  IaRECper=    4. 00]
00692>          [ SMN=  64. 50:  SMX=430. 01:  SK=  . 010]
00693> R0002: CO0083-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00694>      ADD HYD                1.0 02: OKF-NR       139.27      .502 No_date   29:20    8.65  n/a      .000
00695>                        +    1.0 02: O-3           39.67      .402 No_date   28:28   11.03  n/a      .000
00696>                        +    1.0 02: O-5           60.63      .937 No_date   28:10   12.08  n/a      .000
00697>                        +    1.0 02: O-6           16.46      .042 No_date   28:47    6.40  n/a      .000
00698>                   SUM=      1.0 01: PT1          256.03     1.441 No_date   28:30    9.69  n/a      .000
00699> R0002: CO0084-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00700>      CONTINUOUS NASHYD      1.0 01: O-7            5.28      .024 No_date   28:38    8.02  .176      .000
00701>          [ CN= 54.0: N=  3.00: Tp=  .60]
00702>          [ IaREC= 4.00: SMN=  87.01: SMX=580.07: SK=  .010]
00703>          [ InterEventTime=  12.00]
00704> R0002: CO0085-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00705>      ADD HYD                1.0 02: PT1           256.03     1.441 No_date   28:30    9.69  n/a      .000
00706>                        +    1.0 02: O-7             5.28      .024 No_date   28:38    8.02  n/a      .000
00707>                   SUM=      1.0 01: FP            261.31     1.465 No_date   28:30    9.65  n/a      .000
00708> R0002: CO0086-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00709>      ROUTE CHANNEL     ->     1.0 02: FP            261.31     1.465 No_date   28:30    9.65  n/a      .000
00710>        [ RDT= 1.00] out <-     1.0 01: DRAI NI      261.31     1.446 No_date   28:36    9.65  n/a      .000
00711>          [ L/ S/ n=  302. /1. 000/ .043]
00712>          { Vmx=  .953: Dmx=  .543}
00713> R0002: CO0087-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00714>      CONTINUOUS NASHYD      1.0 01: DI             1.17      .026 No_date   28:12   15.66  .344      .000
00715>          [ CN= 84.0: N=  3.00: Tp=  .28]
00716>          [ IaREC= 4.00: SMN=  21.09: SMX=140.62: SK=  .010]
00717>          [ InterEventTime=  12.00]
00718> R0002: CO0088-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00719>      CONTINUOUS STANDHYD    1.0 01: AI             2.50      .256 No_date   28:01   34.35  .755      .000
00720>          [ XI MP=. 68: TI MP=. 85]
00721>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=    .00]
00722>          [ Pervious      area:  I Aper= 4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    .0]
00723>          [ Impervious    area:  I Aimp=  1. 57: SLPI =  . 50: LGI =  224. : MNI =. 013: SCI =    .0]
00724>          [ IaRECImp=   4. 00:  IaRECper=    4. 00]
00725> R0002: CO0089-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00726>      ROUTE RESERVOIR ->     1.0 02: AI             2.50      .256 No_date   28:01   34.35  n/a      .000
00727>                   out <=    1.0 01: AI-STR         2.50      .048 No_date   28:35   34.35  n/a      .000
00728>                overflow <=  1.0 03: AI-OVF          .00      .000 No_date    0:00     .00  n/a      .000
00729>          [ MxStok ed=  4261E-01   m3,  TotOrfVol=. 0000E+00   m3,  N-Orf=    0,  TotDurOrf=    0. hrs]
00730> R0002: CO0090-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00731>      CONTINUOUS STANDHYD    1.0 01: ST-2            .59      .044 No_date   28:00   25.32  .556      .000
00732>          [ XI MP=. 46: TI MP=. 57]
00733>          [ Horton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=    .00]
00734>          [ Pervious      area:  I Aper= 4. 67: SLPP=  . 50: LGP=   50. : MNP=. 250: SCP=    .0]
00735>          [ Impervious    area:  I Aimp=  1. 57: SLPI =  . 50: LGI =  109. : MNI =. 013: SCI =    .0]
00736>          [ IaRECImp=   4. 00:  IaRECper=    4. 00]
00737> R0002: CO0091-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00738>      ROUTE RESERVOIR ->     1.0 02: ST-2            .59      .044 No_date   28:00   25.32  n/a      .000
00739>                   out <=    1.0 01: ST2STR          .59      .041 No_date   28:02   25.32  n/a      .000
00740>                overflow <=  1.0 03: ST2OVF          .00      .000 No_date    0:00     .00  n/a      .000
00741>          [ MxStok ed=. 7924E-03   m3,  TotOrfVol=. 0000E+00   m3,  N-Orf=    0,  TotDurOrf=    0. hrs]
00742> R0002: CO0092-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00743>      CONTINUOUS NASHYD      1.0 01: O-8           60.55      .405 No_date   29:05   12.46  .274      .000
00744>          [ CN= 69.0: N=  3.00: Tp= 1.00]
00745>          [ IaREC= 4.00: SMN=  44.82: SMX=298.82: SK=  .010]
00746>          [ InterEventTime=  12.00]
00747> R0002: CO0093-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
00748>      ROUTE PIPE        ->     1.0 02: O-8           60.55      .405 No_date   29:05   12.46  n/a      .000
```

```
00749>      [ RDT= 1. 00] out <-      1. 0 01: OKPIPE          60. 55       . 402 No_date    29: 10   12. 46   n/ a      . 000
00750>       [ L/ S/ n=  335. / . 100/ . 013]
00751>       [ Vmax=  . 842: Dmax=  . 265]
00752>       [ HGT H= 1. 20: WDTH= 1. 80]
00753> R0002: C00094- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00754>      ADD HYD                1. 0 02: DRAI N1          261. 31       1. 446 No_date    28: 36    9. 65   n/ a      . 000
00755>                        +     1. 0 02: DI                1. 17       . 026 No_date    28: 12   15. 66   n/ a      . 000
00756>                        +     1. 0 02: AI - STR          2. 50       . 048 No_date    28: 35   34. 35   n/ a      . 000
00757>                        +     1. 0 02: AI - OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00758>                        +     1. 0 02: ST2STR            . 59       . 041 No_date    28: 02   25. 32   n/ a      . 000
00759>                        +     1. 0 02: ST2OVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00760>                        +     1. 0 01: OKPI PE          60. 55       . 402 No_date    29: 10   12. 46   n/ a      . 000
00761>                   SUM=       1. 0 01: ST2- 1 N        326. 12      1. 834 No_date    28: 39   10. 41   n/ a      . 000
00762> R0002: C00095- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00763>      CONTI NUOUS STANDHYD   1. 0 01: AI 7              3. 51       . 348 No_date    28: 02   34. 35   . 755     . 000
00764>       [ XI MP=. 68: TI MP=. 85]
00765>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00766>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00767>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =  265. : MNI =. 013: SCI =    . 0]
00768>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00769> R0002: C00096- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00770>      ROUTE RESERVOI R - >      1. 0 02: AI 7              3. 51       . 348 No_date    28: 02   34. 35   n/ a      . 000
00771>                        out <=    1. 0 01: AI 7- STR       3. 51       . 067 No_date    28: 36   34. 35   n/ a      . 000
00772>                   overflow <=    1. 0 03: AI 7OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00773>       {Mi St ol ked=. 6002E- 01   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00774> R0002: C00097- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00775>      CONTI NUOUS STANDHYD   1. 0 01: ST- 3              . 71       . 053 No_date    28: 00   25. 32   . 556     . 000
00776>       [ XI MP=. 46: TI MP=. 57]
00777>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00778>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00779>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =  119. : MNI =. 013: SCI =    . 0]
00780>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00781> R0002: C00098- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00782>      ROUTE RESERVOI R - >      1. 0 02: ST- 3              . 71       . 053 No_date    28: 00   25. 32   n/ a      . 000
00783>                        out <=    1. 0 01: ST3STR          . 71       . 050 No_date    28: 02   25. 32   n/ a      . 000
00784>                   overflow <=    1. 0 03: ST3OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00785>       {Mi St ol ked=. 7947E- 03   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00786> R0002: C00099- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00787>      ADD HYD                1. 0 02: ST2- 1 N        326. 12      1. 834 No_date    28: 39   10. 41   n/ a      . 000
00788>                        +     1. 0 02: AI - STR          3. 51       . 067 No_date    28: 36   34. 35   n/ a      . 000
00789>                        +     1. 0 02: AI - OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00790>                        +     1. 0 02: ST3STR            . 71       . 050 No_date    28: 02   25. 32   n/ a      . 000
00791>                        +     1. 0 02: ST3OVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00792>                   SUM=       1. 0 01: PT2ST3          330. 34      1. 912 No_date    28: 38   10. 70   n/ a      . 000
00793> R0002: C00100- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00794>      ROUTE CHANNEL     - >      1. 0 02: PT2ST3          330. 34      1. 912 No_date    28: 38   10. 70   n/ a      . 000
00795>       [ RDT= 1. 00] out <-      1. 0 01: DRAI N2         330. 34      1. 821 No_date    28: 57   10. 70   n/ a      . 000
00796>       [ L/ S/ n=  592. / . 230/ . 043]
00797>       [ Vmax=  . 681: Dmax=  . 785]
00798> R0002: C00101- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00799>      CONTI NUOUS NASHYD     1. 0 01: D2                2. 28       . 021 No_date    29: 07   15. 66   . 344     . 000
00800>       [ CN=  84. 0: N=  3. 00: Tp=   . 99]
00801>       [ I a REC=  4. 00: SMN=  21. 09: SMX=. 140. 62: SK=  . 010]
00802>       [ I nter Event Time=  12. 00]
00803> R0002: C00102- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00804>      CONTI NUOUS STANDHYD   1. 0 01: AI 7              12. 04      1. 030 No_date    28: 04   34. 35   . 755     . 000
00805>       [ XI MP=. 46: TI MP=. 85]
00806>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00807>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00808>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =  491. : MNI =. 013: SCI =    . 0]
00809>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00810> R0002: C00103- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00811>      ROUTE RESERVOI R - >      1. 0 02: AI 7              12. 04      1. 030 No_date    28: 04   34. 35   n/ a      . 000
00812>                        out <=    1. 0 01: AI 7STR         12. 04       . 220 No_date    28: 42   34. 35   n/ a      . 000
00813>                   overflow <=    1. 0 03: AI 7OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00814>       {Mi St ol ked=. 2030E+ 00   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00815> R0002: C00104- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00816>      CONTI NUOUS STANDHYD   1. 0 01: ST- 4              . 35       . 027 No_date    28: 00   25. 32   . 556     . 000
00817>       [ XI MP=. 46: TI MP=. 57]
00818>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00819>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00820>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =   84. : MNI =. 013: SCI =    . 0]
00821>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00822> R0002: C00105- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00823>      ROUTE RESERVOI R - >      1. 0 02: ST- 4              . 35       . 027 No_date    28: 00   25. 32   n/ a      . 000
00824>                        out <=    1. 0 01: ST4STR          . 35       . 023 No_date    28: 03   25. 32   n/ a      . 000
00825>                   overflow <=    1. 0 03: ST4OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00826>       {Mi St ol ked=. 7487E- 03   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00827> R0002: C00106- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00828>      CONTI NUOUS STANDHYD   1. 0 01: AI 8              5. 30       . 500 No_date    28: 03   34. 35   . 755     . 000
00829>       [ XI MP=. 68: TI MP=. 85]
00830>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00831>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00832>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =  326. : MNI =. 013: SCI =    . 0]
00833>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00834> R0002: C00107- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00835>      ROUTE RESERVOI R - >      1. 0 02: AI 8              5. 30       . 500 No_date    28: 03   34. 35   n/ a      . 000
00836>                        out <=    1. 0 01: AI 8STR         5. 30       . 099 No_date    28: 38   34. 35   n/ a      . 000
00837>                   overflow <=    1. 0 03: AI 8OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00838>       {Mi St ol ked=. 9042E- 01   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00839> R0002: C00108- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00840>      ADD HYD                1. 0 02: DRAI N2         330. 34      1. 821 No_date    28: 57   10. 70   n/ a      . 000
00841>                        +     1. 0 02: DI                2. 28       . 021 No_date    29: 07   15. 66   n/ a      . 000
00842>                        +     1. 0 02: AI 7STR          12. 04       . 220 No_date    28: 42   34. 35   n/ a      . 000
00843>                        +     1. 0 02: AI 7OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00844>                        +     1. 0 02: ST4STR            . 35       . 023 No_date    28: 03   25. 32   n/ a      . 000
00845>                        +     1. 0 02: ST4OVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00846>                        +     1. 0 02: AI 8STR          5. 30       . 099 No_date    28: 38   34. 35   n/ a      . 000
00847>                        +     1. 0 02: AI 8OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00848>                   SUM=       1. 0 01: PT3ST4          350. 31      2. 146 No_date    28: 54   11. 92   n/ a      . 000
00849> R0002: C00109- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00850>      ROUTE CHANNEL     - >      1. 0 02: PT3ST4          350. 31      2. 146 No_date    28: 54   11. 92   n/ a      . 000
00851>       [ RDT= 1. 00] out <-      1. 0 01: DRAI N3         350. 31      2. 088 No_date    29: 08   11. 92   n/ a      . 000
00852>       [ L/ S/ n=  525. / . 230/ . 043]
00853>       [ Vmax=  . 707: Dmax=  . 833]
00854> R0002: C00110- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00855>      CONTI NUOUS NASHYD     1. 0 01: D3                2. 51       . 033 No_date    28: 46   17. 40   . 382     . 000
00856>       [ CN=  86. 0: N=  3. 00: Tp=   . 73]
00857>       [ I a REC=  4. 00: SMN=  17. 43: SMX=. 116. 21: SK=  . 010]
00858>       [ I nter Event Time=  12. 00]
00859> R0002: C00111- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00860>      CONTI NUOUS STANDHYD   1. 0 01: CI                3. 41       . 339 No_date    28: 02   34. 35   . 755     . 000
00861>       [ XI MP=. 68: TI MP=. 85]
00862>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00863>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00864>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =  261. : MNI =. 013: SCI =    . 0]
00865>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00866> R0002: C00112- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00867>      ROUTE RESERVOI R - >      1. 0 02: CI                3. 41       . 339 No_date    28: 02   34. 35   n/ a      . 000
00868>                        out <=    1. 0 01: CI - STR        3. 41       . 065 No_date    28: 36   34. 35   n/ a      . 000
00869>                   overflow <=    1. 0 03: CI - OVF         . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00870>       {Mi St ol ked=. 5806E- 01   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00871> R0002: C00113- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00872>      CONTI NUOUS STANDHYD   1. 0 01: ST- 5              . 45       . 034 No_date    28: 00   25. 32   . 556     . 000
00873>       [ XI MP=. 46: TI MP=. 57]
00874>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00875>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00876>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =   95. : MNI =. 013: SCI =    . 0]
00877>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00878> R0002: C00114- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00879>      ROUTE RESERVOI R - >      1. 0 02: ST- 5              . 45       . 034 No_date    28: 00   25. 32   n/ a      . 000
00880>                        out <=    1. 0 01: ST5STR          . 45       . 031 No_date    28: 03   25. 32   n/ a      . 000
00881>                   overflow <=    1. 0 03: ST5OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00882>       {Mi St ol ked=. 2042E- 03   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00883> R0002: C00115- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00884>      ADD HYD                1. 0 02: DRAI N3         350. 31      2. 088 No_date    29: 08   11. 92   n/ a      . 000
00885>                        +     1. 0 02: DI                2. 51       . 033 No_date    28: 46   17. 40   n/ a      . 000
00886>                        +     1. 0 02: CI - STR          3. 41       . 065 No_date    28: 36   34. 35   n/ a      . 000
00887>                        +     1. 0 02: CI - OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00888>                        +     1. 0 02: ST5STR            . 45       . 031 No_date    28: 03   25. 32   n/ a      . 000
00889>                        +     1. 0 02: ST5OVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00890>                   SUM=       1. 0 01: ST5- E          356. 68      2. 174 No_date    29: 07   12. 19   n/ a      . 000
00891> R0002: C00116- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00892>      CONTI NUOUS STANDHYD   1. 0 01: STRAND            7. 59       . 471 No_date    28: 13   33. 47   . 735     . 000
00893>       [ XI MP=. 64: TI MP=. 85]
00894>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00895>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   40. : MNP=. 250: SCP=     . 0]
00896>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =1230. : MNI =. 013: SCI =    . 0]
00897>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00898> R0002: C00117- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00899>      ROUTE RESERVOI R - >      1. 0 02: STRAND            7. 59       . 471 No_date    28: 13   33. 47   n/ a      . 000
00900>                        out <=    1. 0 01: S- POND           7. 59       . 032 No_date    30: 14   33. 47   n/ a      . 000
00901>                   overflow <=    1. 0 03: S- OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00902>       {Mi St ol ked=. 1805E+ 00   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00903> R0002: C00118- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00904>      ADD HYD                1. 0 02: ST5- E          356. 68      2. 174 No_date    29: 07   12. 19   n/ a      . 000
00905>                        +     1. 0 02: S- POND           7. 59       . 032 No_date    30: 14   33. 47   n/ a      . 000
00906>                        +     1. 0 02: S- OVF             . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00907>                   SUM=       1. 0 01: SSAOUT          364. 27      2. 204 No_date    29: 07   12. 63   n/ a      . 000
00908> R0002: C00119- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00909>      SAVE HYD               1. 0 01: SSAOUT          364. 27      2. 204 No_date    29: 07   12. 63   n/ a      . 000
00910>          fname : SSAOUT. 0002
00911>          remark: SSAOUT
00912> R0002: C00120- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00913>      CONTI NUOUS STANDHYD   1. 0 01: Area- A           66. 75       3. 902 No_date    28: 13   32. 66   . 718     . 000
00914>       [ XI MP=. 64: TI MP=. 80]
00915>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00916>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00917>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =1155. : MNI =. 013: SCI =    . 0]
00918>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00919> R0002: C00121- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00920>      SAVE HYD               1. 0 01: Area- A           66. 75       3. 902 No_date    28: 13   32. 66   n/ a      . 000
00921>          fname : Area- A 0002
00922>          remark: SMWF- A I nflow
00923> R0002: C00122- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00924>      ROUTE RESERVOI R - >      1. 0 02: Area- A           66. 75       3. 902 No_date    28: 13   32. 66   n/ a      . 000
00925>                        out <=    1. 0 01: SWMF- A          66. 75       . 126 No_date    32: 26   32. 66   n/ a      . 000
00926>                   overflow <=    1. 0 03: SWMOV            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00927>       {Mi St ol ked=. 1708E+ 01   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00928> R0002: C00123- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00929>      SAVE HYD               1. 0 01: SWMF- A           66. 75       . 126 No_date    32: 26   32. 66   n/ a      . 000
00930>          fname : SWMF- A 0002
00931>          remark: SMWF- A Outflow
00932> R0002: C00124- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00933>      ADD HYD                1. 0 02: SSAOUT          364. 27      2. 204 No_date    29: 07   12. 63   n/ a      . 000
00934>                        +     1. 0 02: SWMF- A           66. 75       . 126 No_date    32: 26   32. 66   n/ a      . 000
00935>                        +     1. 0 02: SWMNOV            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00936>                   SUM=       1. 0 01: PT4ST5          431. 02      2. 323 No_date    29: 07   15. 73   n/ a      . 000
00937> R0002: C00125- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00938>      CONTI NUOUS STANDHYD   1. 0 01: C6                1. 87       . 196 No_date    28: 01   34. 35   . 755     . 000
00939>       [ XI MP=. 68: TI MP=. 85]
00940>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00941>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00942>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =  193. : MNI =. 013: SCI =    . 0]
00943>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00944> R0002: C00126- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00945>      ROUTE RESERVOI R - >      1. 0 02: C6                1. 87       . 196 No_date    28: 01   34. 35   n/ a      . 000
00946>                        out <=    1. 0 01: C6- STR         1. 87       . 036 No_date    28: 34   34. 35   n/ a      . 000
00947>                   overflow <=    1. 0 03: C6- OVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00948>       {Mi St ol ked=. 3218E- 01   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00949> R0002: C00127- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00950>      CONTI NUOUS STANDHYD   1. 0 01: C7                1. 62       . 171 No_date    28: 01   34. 35   . 755     . 000
00951>       [ XI MP=. 68: TI MP=. 85]
00952>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00953>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00954>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =  180. : MNI =. 013: SCI =    . 0]
00955>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00956> R0002: C00128- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00957>      ROUTE RESERVOI R - >      1. 0 02: C7                1. 62       . 171 No_date    28: 01   34. 35   n/ a      . 000
00958>                        out <=    1. 0 01: C7- STR         1. 62       . 031 No_date    28: 34   34. 35   n/ a      . 000
00959>                   overflow <=    1. 0 03: C7OVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00960>       {Mi St ol ked=. 2774E- 01   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00961> R0002: C00129- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00962>      CONTI NUOUS STANDHYD   1. 0 01: ST- 6              . 41       . 031 No_date    28: 00   25. 32   . 556     . 000
00963>       [ XI MP=. 46: TI MP=. 57]
00964>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00965>       [ Pervious      area:  I Aper=  4. 67: SLPP=  - 50: LGP=   50. : MNP=. 250: SCP=     . 0]
00966>       [ Impervious    area:  I Aimp=  1. 57: SLPI =  - 50: LGI =   91. : MNI =. 013: SCI =    . 0]
00967>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00968> R0002: C00130- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00969>      ROUTE RESERVOI R - >      1. 0 02: ST- 6              . 41       . 031 No_date    28: 00   25. 32   n/ a      . 000
00970>                        out <=    1. 0 01: ST6STR          . 41       . 028 No_date    28: 03   25. 32   n/ a      . 000
00971>                   overflow <=    1. 0 03: ST6OVF           . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00972>       {Mi St ol ked=. 7725E- 03   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
00973> R0002: C00131- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00974>      ADD HYD                1. 0 02: PT4ST5          431. 02      2. 323 No_date    29: 07   15. 73   n/ a      . 000
00975>                        +     1. 0 02: C6- STR           1. 87       . 036 No_date    28: 34   34. 35   n/ a      . 000
00976>                        +     1. 0 02: C6- OVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00977>                        +     1. 0 02: ST7STR            1. 62       . 031 No_date    28: 34   34. 35   n/ a      . 000
00978>                        +     1. 0 02: C7- OVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00979>                        +     1. 0 02: ST6STR            . 41       . 028 No_date    28: 03   25. 32   n/ a      . 000
00980>                        +     1. 0 02: ST6OVF             . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
00981>                   SUM=       1. 0 01: PT5ST6          434. 92      2. 379 No_date    29: 06   15. 89   n/ a      . 000
00982> R0002: C00132- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00983>      ROUTE CHANNEL     - >      1. 0 02: PT5ST6          434. 92      2. 379 No_date    29: 06   15. 73   n/ a      . 000
00984>       [ RDT= 1. 00] out <-      1. 0 01: DRAI N4         434. 92      2. 319 No_date    29: 17   15. 89   n/ a      . 000
00985>       [ L/ S/ n=  324. / . 100/ . 043]
00986>       [ Vmax=  . 532: Dmax=  1. 041]
00987> R0002: C00133- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00988>      CONTI NUOUS NASHYD     1. 0 01: D4                1. 73       . 030 No_date    28: 36   18. 93   . 416     . 000
00989>       [ CN=  88. 0: N=  3. 00: Tp=   . 90]
00990>       [ I a REC=  4. 00: SMN=  14. 94: SMX=  99. 61: SK=  . 010]
00991>       [ I nter Event Time=  12. 00]
00992> R0002: C00134- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
00993>      CONTI NUOUS STANDHYD   1. 0 01: Area- B            24. 04       2. 028 No_date    28: 04   31. 71   . 697     . 000
00994>       [ XI MP=. 62: TI MP=. 77]
00995>       [ Hor ton parameters:  Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:     F=  . 00]
00996>       [ Pervious      area:  I Aper=  4. 67: SLPP=1. 40: LGP=   50. : MNP=. 250: SCP=     . 0]
00997>       [ Impervious    area:  I Aimp=  1. 57: SLPI =1. 40: LGI =  693. : MNI =. 013: SCI =    . 0]
00998>       [ I a REC] mp=    4. 00: I a REC per=    4. 00]
00999> R0002: C00135- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
01000>      ROUTE RESERVOI R - >      1. 0 02: Area- B            24. 04       2. 028 No_date    28: 04   31. 71   n/ a      . 000
01001>                        out <=    1. 0 01: SWMF- B          24. 04       . 169 No_date    29: 09   31. 71   n/ a      . 000
01002>                   overflow <=    1. 0 03: SWMBOVF          . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
01003>       {Mi St ol ked=. 4926E+ 00   m3,  Tot Ovf Vol =. 0000E+ 00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s}
01004> R0002: C00136- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
01005>      ADD HYD                1. 0 02: DRAI N4         434. 92      2. 319 No_date    29: 17   15. 89   n/ a      . 000
01006>                        +     1. 0 02: DI                1. 73       . 030 No_date    28: 36   18. 93   n/ a      . 000
01007>                        +     1. 0 02: SWMF- B           24. 04       . 169 No_date    29: 09   31. 71   n/ a      . 000
01008>                        +     1. 0 02: SWMBOVF            . 00       . 000 No_date    0: 00     . 00   n/ a      . 000
01009>                   SUM=       1. 0 01: D4- EX          460. 69      2. 507 No_date    29: 17   16. 73   n/ a      . 000
01010> R0002: C00137- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
01011>      ROUTE CHANNEL     - >      1. 0 02: D4- EX          460. 69      2. 507 No_date    29: 17   16. 73   n/ a      . 000
01012>       [ RDT= 1. 00] out <-      1. 0 01: DRAI N5         460. 69      2. 448 No_date    29: 30   16. 73   n/ a      . 000
01013>       [ L/ S/ n=  413. / . 160/ . 033]
01014>       [ Vmax=  . 501: Dmax=  . 708]
01015> R0002: C00138- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
01016>      CONTI NUOUS NASHYD     1. 0 01: D5                1. 90       . 026 No_date    28: 43   17. 40   . 382     . 000
01017>       [ CN=  86. 0: N=  3. 00: Tp=   . 69]
01018>       [ I a REC=  4. 00: SMN=  17. 43: SMX=. 116. 21: SK=  . 010]
01019>       [ I nter Event Time=  12. 00]
01020> R0002: C00139- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
01021>      CONTI NUOUS NASHYD     1. 0 01: O- 13SDF          9. 74       . 182 No_date    28: 22   16. 95   . 372     . 000
01022>       [ CN=  81. 0: N=  3. 00: Tp=   . 43]
01023>       [ I a REC=  4. 00: SMN=  25. 21: SMX=. 168. 09: SK=  . 010]
01024>       [ I nter Event Time=  12. 00]
01025> R0002: C00140- ---------- DTmin- I D: NHYD- ------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mm- - - - RVmm R. C. - - - DWF cms
01026>      ROUTE RESERVOI R - >      1. 0 02: O- 13SDF          9. 74       . 182 No_date    28: 22   16. 95   n/ a      . 000
01027>                        out <=    1. 0 01: SWSDF           9. 74       . 021 No_date    32: 19   16. 95   n/ a      . 000
01028>                   overflow <=    1. 0 03: OWFSDF           . 00       . 000 No_date    0: 00     . 
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01123> #
01124> R0002: C00157-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01125>       ROUTE CHANNEL    ->      1. 0 02: SN_OK      53577. 82    47. 629 No_date    34: 57    12. 82   n/a      .000
01126>         [RDT= 1. 00] out <-      1. 0 01: N_FO     53577. 82    47. 599 No_date    35: 11    12. 82   n/a      .000
01127>           [ L/ S/ n= 1183. /  . 076/ . 035]
01128>           [ Vmx= .  919: Dmx= 2. 264]
01129> #*************************************************************************
01130> #     Catchment FOSTER
01131> #   - To Foster ditch (north of the Jock)
01132> #   - Partially developed (medium density); remining agricultural
01133> #   - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
01134> #   - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
01135> #   - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
01136> #*************************************************************************
01137> #     Foster Pond
01147> #   - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
01148> #     and a ratio of the catchment area to the West Clarke pond rating curve
01149> #     from the MSS for the next coordinates
01150> #*************************************************************************
01151> R0002: C00159-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01152>       ROUTE RESERVOIR ->      1. 0 02: FOSTER     325. 44   13. 697 No_date    28: 15    28. 56   n/a      .000
01153>                 out <=      1. 0 01: P_FOS      325. 44    3. 894 No_date    29: 12    28. 56   n/a      .000
01154>             overflow <=      1. 0 03: FO- OVF        .00        .000 No_date     0: 00      .00   n/a      .000
01155>         [MsStoRked= 3. 7766E+01  m3,  Tot Ovf Vol= 0. 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01156> R0002: C00160-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01157>       ADD HYD          1. 0 02: P_FOS      325. 44    3. 894 No_date    29: 12    28. 56   n/a      .000
01158>                      +      1. 0 02: FO- OVF        .00        .000 No_date     0: 00      .00   n/a      .000
01159>                    SUM=      1. 0 01: FOSTER- OUT  325. 44    3. 894 No_date    29: 12    28. 56   n/a      .000
01160> #*************************************************************************
01161> R0002: C00161-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01162>       CONTI NUOUS STANDHYD     1. 0 01: W_CLAR_BRA    73. 29    4. 584 No_date    28: 07    31. 34   . 689      .000
01163>           [ XI M= .  60: TI M= .  65]
01164>           [ LOSS= 2 : CN= 77. 0]
01165>           [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01166>           [ Impervious    area: I Aimp= 1. 57: SLPI= . 50: LGI= 699. : MNI= . 013: SCI=    . 0]
01167>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01168>           [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
01169> R0002: C00162-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01170>       ROUTE RESERVOIR ->      1. 0 02: W_CLAR_BRA    73. 29    4. 584 No_date    28: 07    31. 34   . 689      .000
01171>                 out <=      1. 0 01: MS_P10         73. 29    1. 033 No_date    28: 50    31. 34   n/a      .000
01172>             overflow <=      1. 0 03: P10- OVF        .00        .000 No_date     0: 00      .00   n/a      .000
01173>         [MsStoRked= 7493E+01  m3,  Tot Ovf Vol= 0. 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01174> R0002: C00163-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01175>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- FO- D2     4. 94     . 383 No_date    28: 01    28. 56   . 628      .000
01176>           [ XI M= 55: TI M= 55]
01177>           [ LOSS= 2 : CN= 74. 0]
01178>           [ Pervious      area: I Aper= 4. 67: SLPP= . 50: LGP=  40. : MNP= . 250: SCP=    . 0]
01179>           [ Impervious    area: I Aimp= 1. 57: SLPI= . 50: LGI= 181. : MNI= . 013: SCI=    . 0]
01180>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01181>           [ SMN= 36. 67:  SMX= 244. 49:  SK= . 010]
01182> R0002: C00164-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01183>       COMPUTE DUALHYD          1. 0 01: S- 1- FO- D2     4. 94     . 383 No_date    28: 01    28. 56   n/a      .000
01184>         Major System    /      1. 0 02: S- 1- FO- D2I       .00        .000 No_date     0: 00      .00   n/a      .000
01185>         Minor System    \      1. 0 03: S- 1- FO- D2N     4. 94     . 383 No_date    28: 01    28. 56   n/a      .000
01186>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01187> R0002: C00165-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01188>       ADD HYD          1. 0 02: S- 1- FO- D2I       .00        .000 No_date     0: 00      .00   n/a      .000
01189>                      +      1. 0 02: S- 1- FO- D2N     4. 94     . 383 No_date    28: 01    28. 56   n/a      .000
01190>                    SUM=      1. 0 01: S- 1- FO- D2S     4. 94     . 383 No_date    28: 01    28. 56   n/a      .000
01191> R0002: C00166-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01192>       ROUTE RESERVOIR ->      1. 0 02: S- 1- FO- D2S     4. 94     . 383 No_date    28: 01    28. 56   n/a      .000
01193>                 out <=      1. 0 01: S- 1- FO- D2R     4. 94     . 025 No_date    29: 35    28. 56   n/a      .000
01194>             overflow <=      1. 0 03: S- 1- FOD2ovf       .00        .000 No_date     0: 00      .00   n/a      .000
01195>         [MsStoRked= 8417E- 01  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01196> R0002: C00167-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01197>       ADD HYD          1. 0 02: FOSTER- OUT  325. 44    3. 894 No_date    29: 12    28. 56   n/a      .000
01198>                      +      1. 0 02: S- 1- FO- D2R     4. 94     . 025 No_date    29: 35    28. 56   n/a      .000
01199>                      +      1. 0 02: S- 1- FOD2ovf       .00        .000 No_date     0: 00      .00   n/a      .000
01200>                    SUM=      1. 0 01: 980        330. 38    3. 919 No_date    29: 12    28. 56   n/a      .000
01201> R0002: C00168-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01202>       SAVE HYD         1. 0 01: 980        330. 38    3. 919 No_date    29: 12    28. 56   n/a      .000
01203>           fname : 980. 0002
01204>           remark: Total Flows at Station 980 on Foster Drain
01205> #
01206> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
01207> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
01208> #
01209> R0002: C00169-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01210>       ROUTE CHANNEL    ->      1. 0 02: 980        330. 38    3. 919 No_date    29: 12    28. 56   n/a      .000
01211>         [RDT= 1. 00] out <-      1. 0 01: 980- out   330. 38    3. 791 No_date    29: 25    28. 56   n/a      .000
01212>           [ L/ S/ n= . 460. /  . 043/ . 035]
01213>           [ Vmx= .  544: Dmx= 1. 092]
01214> R0002: C00170-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01215>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- FO- DI        .5. 11        .460 No_date    28: 01    31. 98   . 703      .000
01216>           [ XI M= 65: TI M= 65]
01217>           [ LOSS= 2 : CN= 74. 0]
01218>           [ Pervious      area: I Aper= 4. 67: SLPP= . 50: LGP=  40. : MNP= . 250: SCP=    . 0]
01219>           [ Impervious    area: I Aimp= 1. 57: SLPI= . 50: LGI= 185. : MNI= . 013: SCI=    . 0]
01220>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01221>           [ SMN= 36. 67:  SMX= 244. 49:  SK= . 010]
01222> R0002: C00171-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01223>       COMPUTE DUALHYD          1. 0 02: S- 1- FO- DI        .5. 11        .460 No_date    28: 01    31. 98   n/a      .000
01224>         Major System    /      1. 0 02: S- 1- FO- DII       .00        .000 No_date     0: 00      .00   n/a      .000
01225>         Minor System    \      1. 0 03: S- 1- FO- DIN     5. 11        .460 No_date    28: 01    31. 98   n/a      .000
01226>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01227> R0002: C00172-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01228>       ADD HYD          1. 0 02: S- 1- FO- DIN     5. 11        .460 No_date    28: 01    31. 98   n/a      .000
01229>                      +      1. 0 02: S- 1- FO- DII       .00        .000 No_date     0: 00      .00   n/a      .000
01230>                    SUM=      1. 0 01: S- 1- FO- DIS     5. 11        .460 No_date    28: 01    31. 98   n/a      .000
01231> R0002: C00173-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01232>       ROUTE RESERVOIR ->      1. 0 02: S- 1- FO- DIS     5. 11        .460 No_date    28: 01    31. 98   n/a      .000
01233>                 out <=      1. 0 01: S- 1- FO- DIR     5. 11        .029 No_date    29: 30    31. 98   n/a      .000
01234>             overflow <=      1. 0 03: S- 1- FOD1ovf       .00        .000 No_date     0: 00      .00   n/a      .000
01235>         [MsStoRked= 9836E- 01  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01236> R0002: C00174-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01237>       ADD HYD          1. 0 02: 980- out   330. 38    3. 791 No_date    29: 25    28. 56   n/a      .000
01238>                      +      1. 0 02: S- 1- FO- DIR     5. 11        .029 No_date    29: 30    31. 98   n/a      .000
01239>                      +      1. 0 02: S- 1- FOD1ovf       .00        .000 No_date     0: 00      .00   n/a      .000
01240>                    SUM=      1. 0 01: 520        335. 49    3. 820 No_date    29: 25    28. 61   n/a      .000
01241> R0002: C00175-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01242>       SAVE HYD         1. 0 01: 520        335. 49    3. 820 No_date    29: 25    28. 61   n/a      .000
01243>           fname : 520. 0002
01244>           remark: Total Flows at Sation 520 on Foster Drain
01245> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
01246> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
01247> #
01248> R0002: C00176-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01249>       ROUTE CHANNEL    ->      1. 0 02: 520        335. 49    3. 820 No_date    29: 25    28. 61   n/a      .000
01250>         [RDT= 1. 00] out <-      1. 0 01: 520- out   335. 49    3. 787 No_date    29: 32    28. 61   n/a      .000
01251>           [ L/ S/ n=  860. /  . 587/ . 035]
01252>           [ Vmx= .  1. 196: Dmx=     . 520]
01253> R0002: C00177-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01254>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- FO- F- D     14. 96    1. 215 No_date    28: 02    31. 98   . 703      .000
01255>           [ XI M= 65: TI M= 65]
01256>           [ LOSS= 2 : CN= 74. 0]
01257>           [ Pervious      area: I Aper= 4. 67: SLPP= . 50: LGP=  40. : MNP= . 250: SCP=    . 0]
01258>           [ Impervious    area: I Aimp= 1. 57: SLPI= . 50: LGI= 316. : MNI= . 013: SCI=    . 0]
01259>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01260>           [ SMN= 36. 67:  SMX= 244. 49:  SK= . 010]
01261> R0002: C00178-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01262>       COMPUTE DUALHYD          1. 0 03: S- 1- FO- F- D     14. 96    1. 215 No_date    28: 02    31. 98   n/a      .000
01263>         Major System    /      1. 0 02: S- 1- FO- F- DI        .00        .000 No_date     0: 00      .00   n/a      .000
01264>         Minor System    \      1. 0 03: S- 1- FO- F- DN    14. 96    1. 215 No_date    28: 02    31. 98   n/a      .000
01265>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01266> R0002: C00179-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01267>       ADD HYD          1. 0 02: S- 1- FO- F- DI        .00        .000 No_date     0: 00      .00   n/a      .000
01268>                      +      1. 0 02: S- 1- FO- F- DN    14. 96    1. 215 No_date    28: 02    31. 98   n/a      .000
01269>                    SUM=      1. 0 01: S- 1- FO- F- DS    14. 96    1. 215 No_date    28: 02    31. 98   n/a      .000
01270> R0002: C00180-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01271>       ROUTE RESERVOIR ->      1. 0 02: S- 1- FO- F- DS    14. 96    1. 215 No_date    28: 02    31. 98   n/a      .000
01272>                 out <=      1. 0 01: S- 1- FO- F- DR    14. 96     . 086 No_date    29: 33    31. 98   n/a      .000
01273>             overflow <=      1. 0 03: S- 1- FoFDovf       .00        .000 No_date     0: 00      .00   n/a      .000
01274>         [MsStoRked= 2877E+00  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01275> R0002: C00181-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01276>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- D8        5. 27     . 475 No_date    28: 02    23. 52   . 512      .000
01277>           [ XI M= 32: TI M= 65]
01278>           [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
01279>           [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01280>           [ Impervious    area: I Aimp=  . 79: SLPI= . 75: LGI= 187. : MNI= . 013: SCI=    . 0]
01281>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01282> R0002: C00182-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01283>       COMPUTE DUALHYD          1. 0 01: S- 1- D8        5. 27     . 475 No_date    28: 02    23. 32   n/a      .000
01284>         Major System    /      1. 0 02: S- 1- D8J       .00        .000 No_date     0: 00      .00   n/a      .000
01285>         Minor System    \      1. 0 03: S- 1- D8N     5. 27     . 475 No_date    28: 02    23. 32   n/a      .000
01286>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01287> R0002: C00183-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01288>       ADD HYD          1. 0 02: S- 1- D8J       .00        .000 No_date     0: 00      .00   n/a      .000
01289>                      +      1. 0 02: S- 1- D8N     5. 27     . 475 No_date    28: 02    23. 32   n/a      .000
01290>                    SUM=      1. 0 01: S- 1- D8S     5. 27     . 475 No_date    28: 02    23. 32   n/a      .000
01291> R0002: C00184-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01292>       ROUTE RESERVOIR ->      1. 0 02: S- 1- D8S     5. 27     . 475 No_date    28: 02    23. 32   n/a      .000
01293>                 out <=      1. 0 01: S- 1- D8R     5. 27     . 027 No_date    28: 51    23. 32   n/a      .000
01294>             overflow <=      1. 0 03: S- 1- D8Rovf       .00        .000 No_date     0: 00      .00   n/a      .000
01295>         [MsStoRked= 8901E- 01  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01296> R0002: C00185-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01297>       CONTI NUOUS NASHYD       1. 0 01: S- 1- A        75. 88     . 912 No_date    28: 37    14. 83   . 326      .000
01298>           [ CN= 77. 0: N= 3. 00:  Tp=  . 62]
01299>           [ I aREC= 4. 00:  SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
01300>           [ I nterEvent Time=  12. 00]
01301> R0002: C00186-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01302>       CONTI NUOUS NASHYD       1. 0 01: W_CLAR_UND      35. 65     . 286 No_date    29: 12    14. 83   . 326      .000
01303>           [ CN= 77. 0: N= 3. 00:  Tp= 1. 10]
01304>           [ I aREC= 4. 00:  SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
01305>           [ I nterEvent Time=  12. 00]
01306> R0002: C00187-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01307>       ADD HYD          1. 0 02: N_FO       53577. 82    47. 599 No_date    35: 11    12. 82   n/a      .000
01308>                      +      1. 0 02: 520- out   335. 49    3. 787 No_date    29: 32    28. 61   n/a      .000
01309>                      +      1. 0 02: MS_P10         73. 29    1. 033 No_date    28: 50    31. 34   n/a      .000
01310>                      +      1. 0 02: P10- OVF        .00        .000 No_date     0: 00      .00   n/a      .000
01311>                      +      1. 0 02: W_CLAR_UND      35. 65     . 286 No_date    29: 12    14. 83   n/a      .000
01312>                      +      1. 0 02: S- 1- FoFDovf       .00        .000 No_date     0: 00      .00   n/a      .000
01313>                      +      1. 0 02: S- 1- FO- F- DR    14. 96     . 086 No_date    29: 33    31. 98   n/a      .000
01314>                      +      1. 0 02: S- 1- D8Rovf        .00        .000 No_date     0: 00      .00   n/a      .000
01315>                      +      1. 0 02: S- 1- D8R       5. 27     . 027 No_date    28: 51    23. 32   n/a      .000
01316>                      +      1. 0 02: S- 1- A        75. 88     . 912 No_date    28: 37    14. 83   n/a      .000
01317>                    SUM=      1. 0 01: SN_FO      54118. 36    49. 278 No_date    34: 33    12. 96   n/a      .000
01318> R0002: C00188-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01319>       SAVE HYD         1. 0 01: SN_FO      54118. 36    49. 278 No_date    34: 33    12. 96   n/a      .000
01320>           fname : SN_FO. 0002
01321>           remark: Total Flows at Foster Drain
01322> # Hydrograph from Node Foster routed to Node at Cedarview Road
01323> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
01324> #
01325> R0002: C00189-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01326>       ROUTE CHANNEL    ->      1. 0 02: SN_FO      54118. 36    49. 278 No_date    34: 33    12. 96   n/a      .000
01327> *       [RDT= 1. 00] out <-      1. 0 01: N_CE       54118. 36    49. 269 No_date    34: 41    12. 96   n/a      .000
01328>           [ L/ S/ n=  159. /  . 082/ . 035]
01329>           [ Vmx= .  1. 115: Dmx= 2. 629]
01330> #*************************************************************************
01331> #     Catchment S- 1
01332> #   - To Jock River (north and south of Jock)
01333> #   - Primarily agricultural fields; portion of sand quarry
01334> #*************************************************************************
01335> R0002: C00190-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01336>       CONTI NUOUS NASHYD       1. 0 01: S- 1- B        55. 36     . 825 No_date    28: 24    14. 83   . 326      .000
01337>           [ CN= 77. 0:  N= 3. 00:  Tp=  . 45]
01338>           [ I aREC= 4. 00:  SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
01339>           [ I nterEvent Time=  12. 00]
01340> #     -  JFSA 2021-02-24 change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
01341> #     -  JFSA 2021-02-24 "S- 1- BCDC 1" and "S- 1- BCDC 2" are not existing anymore.  "S- 1- BCDC 1" is part of "S- 1- FO- D2" and
01342> #     -  JFSA 2021-01-19,  after adding Greenbank pond,  "S- 1- BCDC 3" is not existing anymore
01343> R0002: C00191-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01344>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- DI       21. 67    1. 802 No_date    28: 02    32. 20   . 707      .000
01345>           [ XI M= 65: TI M= 65]
01346>           [ LOSS= 2 : CN= 75. 0]
01347>           [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01348>           [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 380. : MNI= . 013: SCI=    . 0]
01349>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01350>           [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
01351> R0002: C00192-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01352>       COMPUTE DUALHYD          1. 0 02: S- 1- DI       21. 67    1. 802 No_date    28: 02    32. 20   n/a      .000
01353>         Major System    /      1. 0 02: S- 1- DII           .00        .000 No_date     0: 00      .00   n/a      .000
01354>         Minor System    \      1. 0 03: S- 1- DIN      21. 67    1. 802 No_date    28: 02    32. 20   n/a      .000
01355>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01356> R0002: C00193-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01357>       ADD HYD          1. 0 02: S- 1- DII           .00        .000 No_date     0: 00      .00   n/a      .000
01358>                      +      1. 0 02: S- 1- DIN      21. 67    1. 802 No_date    28: 02    32. 20   n/a      .000
01359>                    SUM=      1. 0 01: S- 1- DIS      21. 67    1. 802 No_date    28: 02    32. 20   n/a      .000
01360> R0002: C00194-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01361>       ROUTE RESERVOIR ->      1. 0 02: S- 1- DIS      21. 67    1. 802 No_date    28: 02    32. 20   n/a      .000
01362>                 out <=      1. 0 01: S- 1- DIR      21. 67     . 126 No_date    29: 27    32. 20   n/a      .000
01363>             overflow <=      1. 0 03: S- 1- DIRovf        .00        .000 No_date     0: 00      .00   n/a      .000
01364>         [MsStoRked= 4209E+00  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01365> R0002: C00195-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01366>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- D4        3. 28     . 322 No_date    28: 00    32. 20   . 707      .000
01367>           [ XI M= 65: TI M= 65]
01368>           [ LOSS= 2 : CN= 75. 0]
01369>           [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01370>           [ Impervious    area: I Aimp= 1. 57: SLPI=  . 75: LGI= 148. : MNI= . 013: SCI=    . 0]
01371>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01372>           [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
01373> R0002: C00196-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01374>       COMPUTE DUALHYD          1. 0 01: S- 1- D4        3. 28     . 322 No_date    28: 00    32. 20   n/a      .000
01375>         Major System    /      1. 0 02: S- 1- D4J           .00        .000 No_date     0: 00      .00   n/a      .000
01376>         Minor System    \      1. 0 03: S- 1- D4N      3. 28     . 322 No_date    28: 00    32. 20   n/a      .000
01377>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01378> R0002: C00197-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01379>       ADD HYD          1. 0 02: S- 1- D4J           .00        .000 No_date     0: 00      .00   n/a      .000
01380>                      +      1. 0 02: S- 1- D4N      3. 28     . 322 No_date    28: 00    32. 20   n/a      .000
01381>                    SUM=      1. 0 01: S- 1- D4S      3. 28     . 322 No_date    28: 00    32. 20   n/a      .000
01382> R0002: C00198-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01383>       ROUTE RESERVOIR ->      1. 0 02: S- 1- D4S      3. 28     . 322 No_date    28: 00    32. 20   n/a      .000
01384>                 out <=      1. 0 01: S- 1- D4R      3. 28     . 019 No_date    29: 16    32. 20   n/a      .000
01385>             overflow <=      1. 0 03: S- 1- D4Rovf        .00        .000 No_date     0: 00      .00   n/a      .000
01386>         [MsStoRked= 6378E- 01  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01387> R0002: C00199-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01388>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- D5       12. 84    1. 124 No_date    28: 02    32. 20   . 707      .000
01389>           [ XI M= 65: TI M= 65]
01390>           [ LOSS= 2 : CN= 75. 0]
01391>           [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01392>           [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 293. : MNI= . 013: SCI=    . 0]
01393>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01394>           [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
01395> R0002: C00200-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01396>       COMPUTE DUALHYD          1. 0 01: S- 1- D5       12. 84    1. 124 No_date    28: 02    32. 20   n/a      .000
01397>         Major System    /      1. 0 02: S- 1- D5J           .00        .000 No_date     0: 00      .00   n/a      .000
01398>         Minor System    \      1. 0 03: S- 1- D5N      12. 84    1. 124 No_date    28: 02    32. 20   n/a      .000
01399>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01400> R0002: C00201-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01401>       ADD HYD          1. 0 02: S- 1- D5J           .00        .000 No_date     0: 00      .00   n/a      .000
01402>                      +      1. 0 02: S- 1- D5N      12. 84    1. 124 No_date    28: 02    32. 20   n/a      .000
01403>                    SUM=      1. 0 01: S- 1- D5S      12. 84    1. 124 No_date    28: 02    32. 20   n/a      .000
01404> R0002: C00202-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01405>       ROUTE RESERVOIR ->      1. 0 02: S- 1- D5S      12. 84    1. 124 No_date    28: 02    32. 20   n/a      .000
01406>                 out <=      1. 0 01: S- 1- D5R      12. 84     . 075 No_date    29: 23    32. 20   n/a      .000
01407>             overflow <=      1. 0 03: S- 1- D5Rovf        .00        .000 No_date     0: 00      .00   n/a      .000
01408>         [MsStoRked= 2495E+00  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01409> R0002: C00203-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01410>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- D6        1. 75     . 176 No_date    28: 00    32. 20   . 707      .000
01411>           [ XI M= 65: TI M= 65]
01412>           [ LOSS= 2 : CN= 75. 0]
01413>           [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01414>           [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 108. : MNI= . 013: SCI=    . 0]
01415>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01416>           [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
01417> R0002: C00204-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01418>       COMPUTE DUALHYD          1. 0 01: S- 1- D6        1. 75     . 176 No_date    28: 00    32. 20   n/a      .000
01419>         Major System    /      1. 0 02: S- 1- D6J           .00        .000 No_date     0: 00      .00   n/a      .000
01420>         Minor System    \      1. 0 03: S- 1- D6N      1. 75     . 176 No_date    28: 00    32. 20   n/a      .000
01421>         [ MjSysSto= . 0000E+00,  Tot Ovf Vol= . 0000E+00,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01422> R0002: C00205-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01423>       ADD HYD          1. 0 02: S- 1- D6J           .00        .000 No_date     0: 00      .00   n/a      .000
01424>                      +      1. 0 02: S- 1- D6N      1. 75     . 176 No_date    28: 00    32. 20   n/a      .000
01425>                    SUM=      1. 0 01: S- 1- D6S      1. 75     . 176 No_date    28: 00    32. 20   n/a      .000
01426> R0002: C00206-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01427>       ROUTE RESERVOIR ->      1. 0 02: S- 1- D6S      1. 75     . 176 No_date    28: 00    32. 20   n/a      .000
01428>                 out <=      1. 0 01: S- 1- D6R      1. 75     . 010 No_date    29: 14    32. 20   n/a      .000
01429>             overflow <=      1. 0 03: S- 1- D6Rovf        .00        .000 No_date     0: 00      .00   n/a      .000
01430>         [MsStoRked= . 3405E- 01  m3,  Tot Ovf Vol= . 0000E+00  m3,  N- Ovf=     0,  Tot Dur Ovf=     0. hrs]
01431> R0002: C00207-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01432>       CONTI NUOUS STANDHYD     1. 0 01: S- 1- D7        2. 03     . 204 No_date    28: 00    32. 20   . 707      .000
01433>           [ XI M= 65: TI M= 65]
01434>           [ LOSS= 2 : CN= 75. 0]
01435>           [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
01436>           [ Impervious    area: I Aimp= 1. 57: SLPI=  . 75: LGI= 116. : MNI= . 013: SCI=    . 0]
01437>           [ I aREC( mp=  4. 00: I aREC( per=  4. 00]
01438>           [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
01439> R0002: C00208-------------DTmin-1 D: NHYD----------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.---DWFcms
01440>       COMPUTE DUALHYD          1. 0 01: S- 1- D7        2. 03     . 204 No_date    28: 
```

```
01497>          overflow <=     1. 0 03: P2- OVF          .00      .000 No_date    0:00      .00  n/a      .000
01498>        [MaStoSked=.2096E+01   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01499> #*************************************************************************
01500> R0002: C00217- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01501>      ADD HYD                 1. 0 02: N_CE          54118. 36    49. 269 No_date   34: 41    12. 96   n/ a      .000
01502>                          +   1. 0 02: S- 1- D6R        3. 28      .019 No_date   29: 16    32. 20   n/ a      .000
01503>                          +   1. 0 02: S- 1- D5R       12. 84      .075 No_date   29: 23    32. 20   n/ a      .000
01504>                          +   1. 0 02: S- 1- D4Rovf      .00      .000 No_date    0: 00      .00   n/ a      .000
01505>                          +   1. 0 02: S- 1- D5Rovf      .00      .000 No_date    0: 00      .00   n/ a      .000
01506>                          +   1. 0 02: M$_P2          119. 40      .816 No_date   29: 25    31. 34   n/ a      .000
01507>                          +   1. 0 02: P2- OVF           .00      .000 No_date    0: 00      .00   n/ a      .000
01508>                      SUM=    1. 0 01: SN_CE         54253. 88    49. 833 No_date   34: 41    13. 00   n/ a      .000
01509> R0002: C00218- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01510>      SAVE HYD                1. 0 01: SN_CE         54253. 88    49. 833 No_date   34: 41    13. 00   n/ a      .000
01511>        fname: SN_CE. 0002
01512>        remark: Total Flows before Station 5737 on Jock River
01513> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5737
01514> # 2021- 02- 25 add station 5737 before station 5002. Station 5737 was extracted from the HEC- RAS model T: \ PROJ\ 1474- 16\ Des
01515> # JFSA 2021- 03- 02  change the slope to 0. 0175% instead of 0. 02593 to stabilize the model
01516> R0002: C00219- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01517>      ROUTE CHANNEL   - >     1. 0 02: SN_CE         54253. 88    49. 833 No_date   34: 41    13. 00   n/ a      .000
01518> *      [ RDT= 1. 00]  out <-    1. 0 01: 5737          54253. 88    48. 535 No_date   37: 45    13. 00   n/ a      .000
01519>        [ L/ S/ n=  270. /  . 018/ . 035]
01520>        [ Vmx=    611: Dmx=  3. 459]
01521> R0002: C00220- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01522>      ADD HYD                 1. 0 02: 5737          54253. 88    48. 535 No_date   37: 45    13. 00   n/ a      .000
01523>                          +   1. 0 02: S- 1- D1R       21. 67      .126 No_date   29: 27    32. 20   n/ a      .000
01524>                          +   1. 0 02: S- 1- D6R        1. 75      .010 No_date   29: 14    32. 20   n/ a      .000
01525>                          +   1. 0 02: S- 1- D7R        2. 03      .012 No_date   29: 15    32. 20   n/ a      .000
01526>                          +   1. 0 02: S- 1- D1Rovf      .00      .000 No_date    0: 00      .00   n/ a      .000
01527>                          +   1. 0 02: S- 1- D6Rovf      .00      .000 No_date    0: 00      .00   n/ a      .000
01528>                          +   1. 0 02: S- 1- D7Rovf      .00      .000 No_date    0: 00      .00   n/ a      .000
01529>                      SUM=    1. 0 01: 5002          54279. 33    48. 627 No_date   37: 44    13. 01   n/ a      .000
01530> R0002: C00221- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01531>      SAVE HYD                1. 0 01: 5002          54279. 33    48. 627 No_date   37: 44    13. 01   n/ a      .000
01532>        fname: 5002. 0002
01533>        remark: Total Flows before Station 5002 on Jock River
01534> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
01535> # Channel X- Section was created from RVCA Hydraulic Model - Station 5002
01536> # JFSA 2021- 02- 19 Change the slope from 0. 01 % (as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
01537> # JFSA 2021- 02- 19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
01538> # JFSA 2021- 02- 26  change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
01539> R0002: C00222- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01540>      ROUTE CHANNEL   - >     1. 0 02: 5002          54279. 33    48. 627 No_date   37: 44    13. 01   n/ a      .000
01541>        [ RDT= 1. 00]  out <-    1. 0 01: N_ WCa        54279. 33    48. 684 No_date   37: 20    13. 01   n/ a      .000
01542>        [ L/ S/ n=  245. /  . 095/ . 035]
01543>        [ Vmx=   . 960: Dmx=  2. 010]
01544> R0002: C00223- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01545>      ROUTE CHANNEL   - >     1. 0 02: N_ WCa        54279. 33    48. 684 No_date   37: 20    13. 01   n/ a      .000
01546>        [ RDT= 1. 00]  out <-    1. 0 01: N_ WCb        54279. 33    48. 709 No_date   37: 36    13. 01   n/ a      .000
01547>        [ L/ S/ n=  245. /  . 095/ . 035]
01548>        [ Vmx=   . 961: Dmx=  2. 011]
01549> R0002: C00224- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01550>      ROUTE CHANNEL   - >     1. 0 02: N_ WCb        54279. 33    48. 709 No_date   37: 36    13. 01   n/ a      .000
01551>        [ RDT= 1. 00]  out <-    1. 0 01: N_ WC         54279. 33    48. 660 No_date   36: 26    13. 01   n/ a      .000
01552>        [ L/ S/ n=  245. /  . 095/ . 035]
01553>        [ Vmx=   . 961: Dmx=  2. 011]
01554> #*************************************************************************
01555> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
01556> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
01557> #
01558> R0002: C00225- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01559>      ROUTE CHANNEL   - >     1. 0 02: N_ WC         54279. 33    48. 660 No_date   36: 26    13. 01   n/ a      .000
01560>        [ RDT= 1. 00]  out <-    1. 0 01: N_ KB         54279. 33    48. 613 No_date   37: 48    13. 01   n/ a      .000
01561>        [ L/ S/ n=  1020. /  . 050/ . 035]
01562>        [ Vmx=   . 848: Dmx=  2. 423]
01563> #*************************************************************************
01564> #     Catchment KEN_ BU
01565> #     - To Kennedy- Burnett SWM Facility
01566> #     - Outlets to Fraser- Clarke drain (north of the Jock)
01567> #     - Medium density residential subdivision
01568> #*************************************************************************
01569> #*************************************************************************
01570> #     Existing Kennedy- Burnett SWM Facility
01571> #     - Rating curve obtained from URTKBF
01572> #     - Tributary Drainage Area to Pond = 160 ha
01573> #*************************************************************************
01574> R0002: C00226- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01575>      CONTI NUOUS STANDHYD    1. 0 01: KB- 01A        40. 82     1. 627 No_date   28: 18    14. 35   . 315      .000
01576>        [ XI MP=. 10: TI MP=. 39]
01577>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01578>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
01579>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 50: LGI =  522. : MNI =. 013: SCI =    . 0]
01580>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01581> R0002: C00227- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01582>      COMPUTE DUALHYD         1. 0 01: KB- 01A        40. 82     1. 627 No_date   28: 18    14. 35   n/ a      .000
01583>        Major System    /     1. 0 02: KB- 01A- MI       .00      .000 No_date    0: 00      .00   n/ a      .000
01584>        Minor System    \     1. 0 03: KB- 01A- MN    40. 82     1. 627 No_date   28: 18    14. 35   n/ a      .000
01585>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01586> R0002: C00228- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01587>      ADD HYD                 1. 0 02: KB- 01A- MI       .00      .000 No_date    0: 00      .00   n/ a      .000
01588>                          +   1. 0 02: KB- 01A- MN    40. 82     1. 627 No_date   28: 18    14. 35   n/ a      .000
01589>                      SUM=    1. 0 01: KB- 01A- S     40. 82     1. 627 No_date   28: 18    14. 35   n/ a      .000
01590> R0002: C00229- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01591>      CONTI NUOUS STANDHYD    1. 0 01: KB- 01B        31. 10     1. 062 No_date   28: 08    16. 28   . 358      .000
01592>        [ XI MP=. 19: TI MP=. 38]
01593>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01594>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 42: LGP=  40. : MNP=. 250: SCP=    . 0]
01595>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 42: LGI =  455. : MNI =. 013: SCI =    . 0]
01596>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01597> R0002: C00230- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01598>      COMPUTE DUALHYD         1. 0 01: KB- 01B        31. 10     1. 062 No_date   28: 08    16. 28   n/ a      .000
01599>        Major System    /     1. 0 02: KB- 01B- MI       .00      .000 No_date    0: 00      .00   n/ a      .000
01600>        Minor System    \     1. 0 03: KB- 01B- MN    31. 10     1. 062 No_date   28: 08    16. 28   n/ a      .000
01601>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01602> R0002: C00231- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01603>      ADD HYD                 1. 0 02: KB- 01B- MI       .00      .000 No_date    0: 00      .00   n/ a      .000
01604>                          +   1. 0 02: KB- 01B- MN    31. 10     1. 062 No_date   28: 08    16. 28   n/ a      .000
01605>                      SUM=    1. 0 01: KB- 01B- S     31. 10     1. 062 No_date   28: 08    16. 28   n/ a      .000
01606> R0002: C00232- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01607>      CONTI NUOUS STANDHYD    1. 0 01: KB- 01C        13. 78      .776 No_date   28: 06    17. 09   . 375      .000
01608>        [ XI MP=. 20: TI MP=. 41]
01609>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01610>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01611>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 50: LGI =  303. : MNI =. 013: SCI =    . 0]
01612>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01613> R0002: C00233- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01614>      COMPUTE DUALHYD         1. 0 01: KB- 01C        13. 78      .776 No_date   28: 06    17. 09   n/ a      .000
01615>        Major System    /     1. 0 02: KB- 01C- MI       .00      .000 No_date    0: 00      .00   n/ a      .000
01616>        Minor System    \     1. 0 03: KB- 01C- MN    13. 78      .776 No_date   28: 06    17. 09   n/ a      .000
01617>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01618> R0002: C00234- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01619>      ADD HYD                 1. 0 02: KB- 01C- MI       .00      .000 No_date    0: 00      .00   n/ a      .000
01620>                          +   1. 0 02: KB- 01C- MN    13. 78      .776 No_date   28: 06    17. 09   n/ a      .000
01621>                      SUM=    1. 0 01: KB- 01C- S     13. 78      .776 No_date   28: 06    17. 09   n/ a      .000
01622> R0002: C00235- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01623>      CONTI NUOUS STANDHYD    1. 0 01: KB- 03         84. 78     3. 788 No_date   28: 12    16. 73   . 368      .000
01624>        [ XI MP=. 20: TI MP=. 39]
01625>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01626>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01627>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 63: LGI =  752. : MNI =. 013: SCI =    . 0]
01628>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01629> R0002: C00236- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01630>      COMPUTE DUALHYD         1. 0 01: KB- 03         84. 78     3. 788 No_date   28: 12    16. 73   n/ a      .000
01631>        Major System    /     1. 0 02: KB- 03- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01632>        Minor System    \     1. 0 03: KB- 03- MN     84. 78     3. 788 No_date   28: 12    16. 73   n/ a      .000
01633>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01634> R0002: C00237- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01635>      ADD HYD                 1. 0 02: KB- 03- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01636>                          +   1. 0 02: KB- 03- MN     84. 78     3. 788 No_date   28: 12    16. 73   n/ a      .000
01637>                      SUM=    1. 0 01: KB- 03- S      84. 78     3. 788 No_date   28: 12    16. 73   n/ a      .000
01638> R0002: C00238- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01639>      CONTI NUOUS STANDHYD    1. 0 01: KB- 04          6. 95      .792 No_date   28: 01    38. 80   . 853      .000
01640>        [ XI MP=. 85: TI MP=. 85]
01641>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01642>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01643>        [ Impervious    area: I Aimp=  . 94: SLPI =  . 50: LGI =  215. : MNI =. 013: SCI =    . 0]
01644>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01645> R0002: C00239- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01646>      COMPUTE DUALHYD         1. 0 01: KB- 04          6. 95      .792 No_date   28: 01    38. 80   n/ a      .000
01647>        Major System    /     1. 0 02: KB- 04- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01648>        Minor System    \     1. 0 03: KB- 04- MN      6. 95      .503 No_date   27: 53    39. 02   n/ a      .000
01649>        [ M$ Sys Sto=. 1541E+03,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01650> R0002: C00240- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01651>      ADD HYD                 1. 0 02: KB- 04- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01652>                          +   1. 0 02: KB- 04- MN      6. 95      .503 No_date   27: 53    39. 02   n/ a      .000
01653>                      SUM=    1. 0 01: KB- 04- S      6. 95      .503 No_date   27: 53    39. 02   n/ a      .000
01654> R0002: C00241- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01655>      CONTI NUOUS STANDHYD    1. 0 01: KB- 05          5. 19      .653 No_date   28: 01    41. 29   . 907      .000
01656>        [ XI MP=. 93: TI MP=. 93]
01657>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01658>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01659>        [ Impervious    area: I Aimp=  . 57: SLPI =  . 50: LGI =  186. : MNI =. 013: SCI =    . 0]
01660>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01661> R0002: C00242- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01662>      CONTI NUOUS STANDHYD    1. 0 01: KB- 06         12. 93     1. 683 No_date   28: 00    39. 68   . 872      .000
01663>        [ XI MP=. 87: TI MP=. 87]
01664>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01665>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01666>        [ Impervious    area: I Aimp=  . 94: SLPI =4. 75: LGI =  294. : MNI =. 013: SCI =    . 0]
01667>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01668> R0002: C00243- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01669>      COMPUTE DUALHYD         1. 0 01: KB- 06         12. 93     1. 683 No_date   28: 00    39. 68   n/ a      .000
01670>        Major System    /     1. 0 02: KB- 06- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01671>        Minor System    \     1. 0 03: KB- 06- MN     12. 93     1. 683 No_date   28: 00    39. 68   n/ a      .000
01672>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01673> R0002: C00244- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01674>      ADD HYD                 1. 0 02: KB- 06- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01675>                          +   1. 0 02: KB- 06- MN     12. 93     1. 683 No_date   28: 00    39. 68   n/ a      .000
01676>                      SUM=    1. 0 01: KB- 06- S      12. 93     1. 683 No_date   28: 00    39. 68   n/ a      .000
01677> R0002: C00245- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01678>      CONTI NUOUS STANDHYD    1. 0 01: KB- 11          4. 03      .425 No_date   28: 00    32. 17   . 707      .000
01679>        [ XI MP=. 68: TI MP=. 68]
01680>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01681>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01682>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI =  164. : MNI =. 013: SCI =    . 0]
01683>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01684> R0002: C00246- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01685>      COMPUTE DUALHYD         1. 0 01: KB- 11          4. 03      .425 No_date   28: 00    32. 17   n/ a      .000
01686>        Major System    /     1. 0 02: KB- 11- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01687>        Minor System    \     1. 0 03: KB- 11- MN      4. 03      .425 No_date   28: 00    32. 17   n/ a      .000
01688>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01689> R0002: C00247- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01690>      ADD HYD                 1. 0 02: KB- 11- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01691>                          +   1. 0 02: KB- 11- MN      4. 03      .425 No_date   28: 00    32. 17   n/ a      .000
01692>                      SUM=    1. 0 01: KB- 11- S      4. 03      .425 No_date   28: 00    32. 17   n/ a      .000
01693> R0002: C00248- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01694>      CONTI NUOUS STANDHYD    1. 0 01: S1              4. 99      .689 No_date   28: 00    41. 29   . 907      .000
01695>        [ XI MP=. 93: TI MP=. 93]
01696>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01697>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01698>        [ Impervious    area: I Aimp=  . 57: SLPI =2. 00: LGI =  182. : MNI =. 013: SCI =    . 0]
01699>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01700> R0002: C00249- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01701>      CONTI NUOUS STANDHYD    1. 0 01: KB- 15          2. 15      .241 No_date   28: 00    37. 11   . 815      .000
01702>        [ XI MP=. 79: TI MP=. 79]
01703>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01704>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01705>        [ Impervious    area: I Aimp=  . 16: SLPI =  . 30: LGI =  120. : MNI =. 013: SCI =    . 0]
01706>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01707> R0002: C00250- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01708>      ADD HYD                 1. 0 02: KB- 01A- S     40. 82     1. 627 No_date   28: 18    14. 35   n/ a      .000
01709>                          +   1. 0 02: KB- 01B- S     31. 10     1. 062 No_date   28: 08    16. 28   n/ a      .000
01710>                          +   1. 0 02: KB- 01C- S     13. 78      .776 No_date   28: 06    17. 09   n/ a      .000
01711>                          +   1. 0 02: KB- 03- S      84. 78     3. 788 No_date   28: 12    16. 73   n/ a      .000
01712>                          +   1. 0 02: KB- 04- S       6. 95      .503 No_date   27: 53    39. 02   n/ a      .000
01713>                          +   1. 0 02: KB- 05- S       5. 19      .653 No_date   28: 01    41. 29   n/ a      .000
01714>                          +   1. 0 02: KB- 06- S      12. 93     1. 683 No_date   28: 00    39. 68   n/ a      .000
01715>                          +   1. 0 02: KB- 11- S       4. 03      .425 No_date   28: 00    32. 17   n/ a      .000
01716>                          +   1. 0 02: KB- 15          2. 15      .241 No_date   28: 00    37. 11   n/ a      .000
01717>                          +   1. 0 01: S1              4. 99      .689 No_date   28: 00    41. 29   n/ a      .000
01718>                      SUM=    1. 0 01: KB- P1        206. 72     9. 491 No_date   28: 02    20. 13   n/ a      .000
01719> R0002: C00251- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01720>      ROUTE RESERVOIR - >     1. 0 02: KB- P1        206. 72     9. 491 No_date   28: 02    20. 13   n/ a      .000
01721>                      out <=  1. 0 01: KB- P1R       206. 72     8. 405 No_date   28: 13    20. 13   n/ a      .000
01722>                    overflow <=  1. 0 03: KB- P1ovf       .00      .000 No_date    0: 00      .00   n/ a      .000
01723>        [ MaStoSked=. 3779E+00   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01724> R0002: C00252- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01725>      ADD HYD                 1. 0 02: KB- P1R       206. 72     8. 405 No_date   28: 13    20. 13   n/ a      .000
01726>                          +   1. 0 02: KB- P1ovf       .00      .000 No_date    0: 00      .00   n/ a      .000
01727>                      SUM=    1. 0 01: KB- Pond1     206. 72     8. 405 No_date   28: 13    20. 13   n/ a      .000
01728> R0002: C00253- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01729>      SAVE HYD                1. 0 01: KB- Pond1     206. 72     8. 405 No_date   28: 13    20. 13   n/ a      .000
01730>        fname: KB- Pond1. 0002
01731>        remark: Total Flows at KB first pond
01732> R0002: C00254- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01733>      CONTI NUOUS STANDHYD    1. 0 01: KB- 07         10. 86     1. 337 No_date   28: 00    39. 32   . 864      .000
01734>        [ XI MP=. 86: TI MP=. 86]
01735>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01736>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01737>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI =  269. : MNI =. 013: SCI =    . 0]
01738>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01739> R0002: C00255- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01740>      COMPUTE DUALHYD         1. 0 01: KB- 07         10. 86     1. 337 No_date   28: 00    39. 32   n/ a      .000
01741>        Major System    /     1. 0 02: KB- 07- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01742>        Minor System    \     1. 0 03: KB- 07- MN     10. 86     1. 337 No_date   28: 00    39. 32   n/ a      .000
01743>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01744> R0002: C00256- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01745>      ADD HYD                 1. 0 02: KB- 07- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01746>                          +   1. 0 02: KB- 07- MN     10. 86     1. 337 No_date   28: 00    39. 32   n/ a      .000
01747>                      SUM=    1. 0 01: KB- 07- S      10. 86     1. 337 No_date   28: 00    39. 32   n/ a      .000
01748> R0002: C00257- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01749>      CONTI NUOUS STANDHYD    1. 0 01: KB- 08          6. 61      .651 No_date   28: 00    30. 82   . 677      .000
01750>        [ XI MP=. 64: TI MP=. 64]
01751>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01752>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01753>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI =  210. : MNI =. 013: SCI =    . 0]
01754>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01755> R0002: C00258- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01756>      COMPUTE DUALHYD         1. 0 01: KB- 08          6. 61      .651 No_date   28: 00    30. 82   n/ a      .000
01757>        Major System    /     1. 0 02: KB- 08- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01758>        Minor System    \     1. 0 03: KB- 08- MN      6. 61      .651 No_date   28: 00    30. 82   n/ a      .000
01759>        [ M$ Sys Sto=. 0000E+00,  Tot Or Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
01760> R0002: C00259- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01761>      ADD HYD                 1. 0 02: KB- 08- MI        .00      .000 No_date    0: 00      .00   n/ a      .000
01762>                          +   1. 0 02: KB- 08- MN      6. 61      .651 No_date   28: 00    30. 82   n/ a      .000
01763>                      SUM=    1. 0 01: KB- 08- S      6. 61      .651 No_date   28: 00    30. 82   n/ a      .000
01764> R0002: C00260- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01765>      CONTI NUOUS STANDHYD    1. 0 01: KB- 09          2. 60      .344 No_date   28: 00    38. 64   . 849      .000
01766>        [ XI MP=. 86: TI MP=. 86]
01767>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01768>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01769>        [ Impervious    area: I Aimp=  . 57: SLPI =2. 00: LGI =  132. : MNI =. 013: SCI =    . 0]
01770>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01771> R0002: C00261- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01772>      CONTI NUOUS STANDHYD    1. 0 01: KB- 10_1        2. 37      .314 No_date   28: 00    38. 64   . 849      .000
01773>        [ XI MP=. 86: TI MP=. 86]
01774>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01775>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01776>        [ Impervious    area: I Aimp=  . 57: SLPI =2. 00: LGI =  126. : MNI =. 013: SCI =    . 0]
01777>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01778> R0002: C00262- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01779>      CONTI NUOUS STANDHYD    1. 0 01: KB- 10_2        1. 14      .153 No_date   28: 00    38. 64   . 849      .000
01780>        [ XI MP=. 86: TI MP=. 86]
01781>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01782>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01783>        [ Impervious    area: I Aimp=  1. 57: SLPI =2. 00: LGI =  87. : MNI =. 013: SCI =    . 0]
01784>        [ I aREC i mp=   4. 00: I aREC per=   4. 00]
01785> R0002: C00263- ------------ DTmi n- I D: NHYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
01786>      CONTI NUOUS STANDHYD    1. 0 01: KB- 12          4. 86      .581 No_date   28: 00    36. 37   . 799      .000
01787>        [ XI MP=. 79: TI MP=. 79]
01788>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
01789>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01790>        [ Impervious    area: I Aimp=  1. 10: SLPI =2. 00: LGI =  180. : MNI =. 013: SCI =    . 0
```

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01871>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
01872> R0002: C00278- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01873>       ADD HYD                1. 0 02: KB- Pond2          254. 24        9. 930 No_date   28: 12    22. 82   n/ a        .000
01874>                          +    1. 0 02: KB- 16_ 1          2. 80         . 293 No_date   28: 01    35. 54   n/ a        .000
01875>                          SUM=  1. 0 01: KB- P3           257. 04       10. 049 No_date   28: 11    22. 96   n/ a        .000
01876> R0002: C00279- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01877>       ROUTE RESERVOIR - >    1. 0 02: KB- P3           257. 04       10. 049 No_date   28: 11    22. 96   n/ a        .000
01878>                          out <=  1. 0 01: KB- P3R         18. 54         . 051 No_date   18: 09    22. 96   n/ a        .000
01879>                          overflow <=  1. 0 03: KB- P3ovf  238. 50        9. 997 No_date   28: 11    22. 96   n/ a        .000
01880>          [ MaStOked= 2. 0001E- 02   m3,  Tot Ov f Vol= 5. 5477E+01   m3,  N- Ov f=     1,  Tot Dur Ov f=    22. hrs]
01881> R0002: C00280- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01882>       ADD HYD                1. 0 02: KB- P3R         18. 54         . 051 No_date   18: 09    22. 96   n/ a        .000
01883>                          +    1. 0 02: KB- P3ovf       238. 50        9. 997 No_date   28: 11    22. 96   n/ a        .000
01884>                          SUM=  1. 0 01: KB- Pond3        257. 04       10. 048 No_date   28: 11    22. 96   n/ a        .000
01885> R0002: C00281- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01886>       SAVE HYD               1. 0 01: KB- Pond3          257. 04       10. 048 No_date   28: 11    22. 96   n/ a        .000
01887>          fname : KB- Pond3. 0002
01888>          remark: Total Flows at KB third pond
01889> #*************************************************************************
01890> #     EXISTING / PROPOSED Subcatchments (Kennedy- Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
01891> #     - TO FRASER_CLARKE DRAIN
01892> #*************************************************************************
01893> R0002: C00282- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01894>       CONTI NUOUS STANDHYD   1. 0 01: FC- 01           8. 03         . 575 No_date   28: 01    23. 89   . 525       .000
01895>          [ XI M=. 47: TI M=. 47]
01896>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
01897>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01898>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  231. : MNI =. 013: SCI =    . 0]
01899>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
01900> R0002: C00283- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01901>       COMPUTE DUALHYD        1. 0 02: FC- 01-MI          8. 03         . 575 No_date   28: 01    23. 89   n/ a        .000
01902>          Major System   /      1. 0 02: FC- 01-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01903>          Minor System   \      1. 0 03: FC- 01-MN          8. 03         . 575 No_date   28: 01    23. 89   n/ a        .000
01904>          [ MaSyst o=. 0000E+00,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
01905> R0002: C00284- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01906>       ADD HYD                1. 0 02: FC- 01-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01907>                          +    1. 0 02: FC- 01-MN          8. 03         . 575 No_date   28: 01    23. 89   n/ a        .000
01908>                          SUM=  1. 0 01: FC- 01-S          8. 03         . 575 No_date   28: 01    23. 89   n/ a        .000
01909> R0002: C00285- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01910>       CONTI NUOUS STANDHYD   1. 0 01: FC- 02          16. 05        1. 936 No_date   28: 01    41. 29   . 907       .000
01911>          [ XI M=. 93: TI M=. 93]
01912>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
01913>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01914>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  327. : MNI =. 013: SCI =    . 0]
01915>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
01916> R0002: C00286- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01917>       COMPUTE DUALHYD        1. 0 01: FC- 02          16. 05        1. 936 No_date   28: 01    41. 29   n/ a        .000
01918>          Major System   /      1. 0 02: FC- 02-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01919>          Minor System   \      1. 0 03: FC- 02-MN          16. 05        1. 159 No_date   27: 52    41. 31   n/ a        .000
01920>          [ MaSyst o=. 4641E+03,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
01921> R0002: C00287- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01922>       ADD HYD                1. 0 02: FC- 02-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01923>                          +    1. 0 02: FC- 02-MN          16. 05        1. 159 No_date   27: 52    41. 31   n/ a        .000
01924>                          SUM=  1. 0 01: FC- 02-S          16. 05        1. 159 No_date   27: 52    41. 31   n/ a        .000
01925> R0002: C00288- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01926>       CONTI NUOUS STANDHYD   1. 0 01: FC- 03           7. 37         . 687 No_date   28: 01    30. 32   . 666       .000
01927>          [ XI M=. 64: TI M=. 64]
01928>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
01929>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01930>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  222. : MNI =. 013: SCI =    . 0]
01931>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
01932> R0002: C00289- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01933>       COMPUTE DUALHYD        1. 0 01: FC- 03           7. 37         . 687 No_date   28: 01    30. 32   n/ a        .000
01934>          Major System   /      1. 0 02: FC- 03-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01935>          Minor System   \      1. 0 03: FC- 03-MN          7. 37         . 358 No_date   27: 49    30. 49   n/ a        .000
01936>          [ MaSyst o=. 2043E+03,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
01937> R0002: C00290- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01938>       ADD HYD                1. 0 02: FC- 03-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01939>                          +    1. 0 02: FC- 03-MN          7. 37         . 358 No_date   27: 49    30. 49   n/ a        .000
01940>                          SUM=  1. 0 01: FC- 03-S          7. 37         . 358 No_date   27: 49    30. 49   n/ a        .000
01941> R0002: C00291- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01942>       CONTI NUOUS STANDHYD   1. 0 01: FC- 04          12. 87        1. 148 No_date   28: 01    30. 32   . 666       .000
01943>          [ XI M=. 64: TI M=. 64]
01944>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
01945>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01946>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  293. : MNI =. 013: SCI =    . 0]
01947>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
01948> R0002: C00292- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01949>       COMPUTE DUALHYD        1. 0 01: FC- 04          12. 87        1. 148 No_date   28: 01    30. 32   n/ a        .000
01950>          Major System   /      1. 0 02: FC- 04-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01951>          Minor System   \      1. 0 03: FC- 04-MN          12. 87         . 741 No_date   27: 53    30. 44   n/ a        .000
01952>          [ MaSyst o=. 2134E+03,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
01953> R0002: C00293- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01954>       ADD HYD                1. 0 02: FC- 04-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01955>                          +    1. 0 02: FC- 04-MN          12. 87         . 741 No_date   27: 53    30. 44   n/ a        .000
01956>                          SUM=  1. 0 01: FC- 04-S          12. 87         . 741 No_date   27: 53    30. 44   n/ a        .000
01957> #*************************************************************************
01958> #     PROPOSED Subcatchments (Kennedy- Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report June, 2020)
01959> #     - TO JOCK RIVER
01960> #*************************************************************************
01961> R0002: C00294- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01962>       CONTI NUOUS STANDHYD   1. 0 01: JR- 01           8. 24         . 764 No_date   28: 01    30. 32   . 666       .000
01963>          [ XI M=. 64: TI M=. 64]
01964>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
01965>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01966>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  234. : MNI =. 013: SCI =    . 0]
01967>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
01968> R0002: C00295- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01969>       COMPUTE DUALHYD        1. 0 01: JR- 01           8. 24         . 764 No_date   28: 01    30. 32   n/ a        .000
01970>          Major System   /      1. 0 02: JR- 01-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01971>          Minor System   \      1. 0 03: JR- 01-MN          8. 24         . 563 No_date   28: 13    30. 43   n/ a        .000
01972>          [ MaSyst o=. 8257E+02,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
01973> R0002: C00296- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01974>       ADD HYD                1. 0 02: JR- 01-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01975>                          +    1. 0 02: JR- 01-MN          8. 24         . 563 No_date   27: 55    30. 43   n/ a        .000
01976>                          SUM=  1. 0 01: JR- 01-S          8. 24         . 563 No_date   27: 55    30. 43   n/ a        .000
01977> R0002: C00297- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01978>       CONTI NUOUS STANDHYD   1. 0 01: JR- 02           1. 59         . 162 No_date   28: 00    30. 32   . 666       .000
01979>          [ XI M=. 64: TI M=. 64]
01980>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    F=  . 00]
01981>          [ Pervious       area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
01982>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  103. : MNI =. 013: SCI =    . 0]
01983>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
01984> R0002: C00298- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01985>       COMPUTE DUALHYD        1. 0 01: JR- 02           1. 59         . 162 No_date   28: 00    30. 32   n/ a        .000
01986>          Major System   /      1. 0 02: JR- 02-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01987>          Minor System   \      1. 0 03: JR- 02-MN          1. 59         . 153 No_date   27: 58    30. 45   n/ a        .000
01988>          [ MaSyst o=. 1236E+01,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
01989> R0002: C00299- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
01990>       ADD HYD                1. 0 02: JR- 02-MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
01991>                          +    1. 0 02: JR- 02-MN          1. 59         . 153 No_date   27: 58    30. 45   n/ a        .000
01992>                          SUM=  1. 0 01: JR- 02-S          1. 59         . 153 No_date   27: 58    30. 45   n/ a        .000
01993> #*************************************************************************
01994> #     Catchment FRASER
01995> #     - To Fraser- Clarke drain (north of the Jock)
01996> #     - Developed land with assumed 43% imp.
01997> #     - 2020- 12- 17 Change Fraser area to be 35. 1 as measured from QGIS
01998> #     - 2020- 12- 17 All Fraser is undeveloped (Nashyd)
01999> #*************************************************************************
02000> R0002: C00300- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02001>       CONTI NUOUS NASHYD     1. 0 01: FRASER- DRN        13. 65         . 212 No_date   28: 22    14. 83   . 326       .000
02002>          [ CN=  77. 0:  N=  3. 00:  Tp=     . 43]
02003>          [ IaREC=  4. 00:  SM N=  31. 15:  SMAX=207. 66:  SK=  . 010]
02004>          [ InterEvent Time=   12. 00]
02005> R0002: C00301- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02006>       CONTI NUOUS STANDHYD   1. 0 01: FRASER- D        21. 61        1. 710 No_date   28: 02    30. 87   . 678       .000
02007>          [ XI M=. 58: TI M=. 58]
02008>          [ LOSS=  2 : CN=  80. 0]
02009>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02010>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  380. : MNI =. 013: SCI =    . 0]
02011>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02012>          [ SM N=  26. 32:  SMAX=175. 50:  SK=  . 010]
02013> R0002: C00302- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02014>       COMPUTE DUALHYD        1. 0 01: FRASER- D        21. 61        1. 710 No_date   28: 02    30. 87   n/ a        .000
02015>          Major System   /      1. 0 02: FRASER- I           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02016>          Minor System   \      1. 0 03: FRASER- N        21. 61        1. 710 No_date   28: 02    30. 87   n/ a        .000
02017>          [ MaSyst o=. 0000E+00,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
02018> R0002: C00303- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02019>       ADD HYD                1. 0 02: FRASER- I           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02020>                          +    1. 0 02: FRASER- N        21. 61        1. 710 No_date   28: 02    30. 87   n/ a        .000
02021>                          SUM=  1. 0 01: FRASER- S        21. 61        1. 710 No_date   28: 02    30. 87   n/ a        .000
02022> R0002: C00304- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02023>       ADD HYD                1. 0 02: KB- Pond3         257. 04       10. 048 No_date   28: 11    22. 96   n/ a        .000
02024>                          +    1. 0 02: S- 1- B            55. 36         . 825 No_date   28: 24    14. 83   n/ a        .000
02025>                          +    1. 0 02: FRASER- DRN        13. 65         . 212 No_date   28: 22    14. 83   n/ a        .000
02026>                          +    1. 0 02: FRASER- S          21. 61        1. 710 No_date   28: 02    30. 87   n/ a        .000
02027>                          +    1. 0 02: N_KB             54279. 33       48. 613 No_date   37: 48    13. 01   n/ a        .000
02028>                          +    1. 0 02: FC- 01-S            8. 03         . 575 No_date   28: 01    23. 89   n/ a        .000
02029>                          +    1. 0 02: FC- 02-S           16. 05        1. 159 No_date   27: 52    41. 31   n/ a        .000
02030>                          +    1. 0 02: FC- 03-S            7. 37         . 358 No_date   27: 49    30. 49   n/ a        .000
02031>                          SUM=  1. 0 01: 4241          54658. 44       48. 897 No_date   37: 48    13. 08   n/ a        .000
02032> R0002: C00305- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02033>       SAVE HYD               1. 0 01: 4241            54658. 44       48. 897 No_date   37: 48    13. 08   n/ a        .000
02034>          fname : 4241. 0002
02035>          remark: Total Flows at Ken- Burnett Outlet
02036> # Hydrograph from Node Ken- Burnett to station 3633
02037> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4241
02038> #
02039> R0002: C00306- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02040>       ROUTE CHANNEL    - >    1. 0 02: 4241            54658. 44       48. 897 No_date   37: 48    13. 08   n/ a        .000
02041>          [ RDT=  1. 00]  out <-    1. 0 01: 4241- out   54658. 44       48. 922 No_date   37: 46    13. 08   n/ a        .000
02042>          [ LS/ S=    . 294 / . 109/ . 035]
02043>          [ Vmx=    . 961: Dmx=  1. 544]
02044> R0002: C00307- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02045>       ADD HYD                1. 0 02: 4241- out       54658. 44       48. 922 No_date   37: 46    13. 08   n/ a        .000
02046>                          +    1. 0 02: FC- 04-S           12. 87         . 741 No_date   27: 53    30. 44   n/ a        .000
02047>                          +    1. 0 02: JR- 01-S            8. 24         . 563 No_date   27: 55    30. 43   n/ a        .000
02048>                          +    1. 0 02: JR- 02-S            1. 59         . 153 No_date   27: 58    30. 45   n/ a        .000
02049>                          SUM=  1. 0 01: SN_KB          54681. 13       48. 944 No_date   37: 46    13. 09   n/ a        .000
02050> R0002: C00308- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02051>       SAVE HYD               1. 0 01: SN_KB           54681. 13       48. 944 No_date   37: 46    13. 09   n/ a        .000
02052>          fname : SN_KB. 0002
02053>          remark: Total Flows before Station 3633
02054> # Hydrograph from Station 3633 to Node Todd
02055> # Channel X- Section obtained from RVCA Hydraulic Model - Station 3633
02056> # JFSA 2021- 02- 26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0. 0498% to 0. 2
02057> #

02058> R0002: C00309- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02059>       ROUTE CHANNEL    - >    1. 0 02: SN_KB           54681. 13       48. 944 No_date   37: 46    13. 09   n/ a        .000
02060>          [ RDT=  1. 00]  out <-    1. 0 01: N_TO            54681. 13       48. 905 No_date   37: 53    13. 09   n/ a        .000
02061>          [ LS/ S=    608. / . 247/ . 035]
02062>          [ Vmx=  1. 299: Dmx=  1. 136]
02063> #*************************************************************************
02064> #     Catchment Greenbank
02065> #     - To Greenbank Drain (south of the Jock)
02066> #     - JFSA 2021- 01- 18 add Greenbank pond as per JFSA, P598(06)- 15, June 2016
02067> #     - JFSA 2021- 01- 19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
02068> #*************************************************************************
02069> R0002: C00310- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02070>       CONTI NUOUS STANDHYD   1. 0 01: Greenbank        36. 60        2. 954 No_date   28: 02    32. 54   . 715       .000
02071>          [ XI M=. 64: TI M=. 68]
02072>          [ LOSS=  2 : CN=  77. 0]
02073>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02074>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  494. : MNI =. 013: SCI =    . 0]
02075>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02076>          [ SM N=  31. 15:  SMAX=207. 66:  SK=  . 010]
02077> R0002: C00311- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02078>       ROUTE RESERVOIR - >    1. 0 02: Greenbank        36. 60        2. 954 No_date   28: 02    32. 54   n/ a        .000
02079>                          out <=  1. 0 01: GreenB_MN       36. 60         . 569 No_date   28: 38    32. 54   n/ a        .000
02080>                          overflow <=  1. 0 03: GreenB_MI      . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02081>          [ MaStOked= 6. 052E+00   m3,  Tot Ov f Vol =  . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
02082> R0002: C00312- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02083>       ADD HYD                1. 0 02: N_TO            54681. 13       48. 905 No_date   37: 53    13. 09   n/ a        .000
02084>                          +    1. 0 02: GreenB_MI           . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02085>                          +    1. 0 02: GreenB_MN          36. 60         . 569 No_date   28: 38    32. 54   n/ a        .000
02086>                          SUM=  1. 0 01: GreenB         54717. 73       48. 982 No_date   37: 53    13. 10   n/ a        .000
02087> R0002: C00313- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02088>       SAVE HYD               1. 0 01: GreenB          54717. 73       48. 982 No_date   37: 53    13. 10   n/ a        .000
02089>          fname : GreenB. 0002
02090>          remark: Total Flows at Greenbank Drain
02091> #*************************************************************************
02092> #     Catchment TODD
02093> #     - To Todd Drain (south of the Jock)
02094> #     - Subdivision with 43% imp. as per Barrhaven South MSS
02095> #     - 2020- 11- 30 increase imp. based on P598(04)- 11
02096> #     - 2020- 11- 30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598(04)- 11
02097> #     - 2020- 11- 30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
02098> #*************************************************************************
02099> #     JFSA 2021- 01- 19 add "TODD_MNI" as part of Clarke("W_CLAR_MI") and remove it from Todd
02100> R0002: C00314- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02101>       CONTI NUOUS STANDHYD   1. 0 01: TODD_MN2         2. 10         . 179 No_date   28: 00    28. 91   . 635       .000
02102>          [ XI M=. 53: TI M=. 57]
02103>          [ LOSS=  2 : CN=  77. 0]
02104>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02105>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  118. : MNI =. 013: SCI =    . 0]
02106>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02107>          [ SM N=  31. 15:  SMAX=207. 66:  SK=  . 010]
02108> R0002: C00315- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02109>       CONTI NUOUS STANDHYD   1. 0 01: TODD_MN3          . 12         . 011 No_date   28: 00    28. 91   . 635       .000
02110>          [ XI M=. 53: TI M=. 57]
02111>          [ LOSS=  2 : CN=  77. 0]
02112>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02113>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  28. : MNI =. 013: SCI =    . 0]
02114>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02115>          [ SM N=  31. 15:  SMAX=207. 66:  SK=  . 010]
02116> R0002: C00316- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02117>       CONTI NUOUS STANDHYD   1. 0 01: TODD_MJ          30. 23        2. 154 No_date   28: 03    29. 64   . 651       .000
02118>          [ XI M=. 52: TI M=. 64]
02119>          [ LOSS=  2 : CN=  77. 0]
02120>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02121>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  449. : MNI =. 013: SCI =    . 0]
02122>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02123>          [ SM N=  31. 15:  SMAX=207. 66:  SK=  . 010]
02124> R0002: C00317- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02125>       CONTI NUOUS STANDHYD   1. 0 01: TODD_ALL        112. 91        6. 553 No_date   28: 06    28. 70   . 631       .000
02126>          [ XI M=. 52: TI M=. 57]
02127>          [ LOSS=  2 : CN=  77. 0]
02128>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02129>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  868. : MNI =. 013: SCI =    . 0]
02130>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02131>          [ SM N=  31. 15:  SMAX=207. 66:  SK=  . 010]
02132> R0002: C00318- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02133>       CONTI NUOUS STANDHYD   1. 0 01: TODD_P            3. 06         . 295 No_date   28: 00    31. 76   . 698       .000
02134>          [ XI M=. 63: TI M=. 63]
02135>          [ LOSS=  2 : CN=  77. 0]
02136>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02137>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  143. : MNI =. 013: SCI =    . 0]
02138>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02139>          [ SM N=  31. 15:  SMAX=207. 66:  SK=  . 010]
02140> # 5- Year + 12% Capture
02141> R0002: C00319- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02142>       ROUTE RESERVOIR - >    1. 0 02: TODD_MJ          30. 23        2. 154 No_date   28: 03    29. 64   n/ a        .000
02143> *                        out <=  1. 0 01: TODD_Mjo        30. 23        2. 154 No_date   28: 03    29. 64   n/ a        .000
02144>                          overflow <=  1. 0 03: TODD_Mjj       . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02145>          [ MaStOked= 6. 5551E- 04   m3,  Tot Ov f Vol =  . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
02146> # 5- Year + 12% Capture
02147> R0002: C00320- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02148>       ROUTE RESERVOIR - >    1. 0 02: TODD_MN2         2. 10         . 179 No_date   28: 00    28. 91   n/ a        .000
02149>                          out <=  1. 0 01: TODD_MN2n       2. 10         . 179 No_date   28: 00    28. 91   n/ a        .000
02150>                          overflow <=  1. 0 03: TODD_MN2j      . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02151>          [ MaStOked= 6. 761E- 04   m3,  Tot Ov f Vol =  . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
02152> R0002: C00321- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02153>       ROUTE RESERVOIR - >    1. 0 02: TODD_MN3          . 12         . 011 No_date   28: 00    28. 91   n/ a        .000
02154>                          out <=  1. 0 01: TODD_MN3n       . 12         . 010 No_date   28: 00    28. 91   n/ a        .000
02155>                          overflow <=  1. 0 03: TODD_MN3j      . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02156>          [ MaStOked= 6. 5666E- 04   m3,  Tot Ov f Vol =  . 0000E+00   m3,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
02157> R0002: C00322- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02158>       CONTI NUOUS STANDHYD   1. 0 01: A2              25. 50        1. 427 No_date   28: 04    25. 60   . 563       .000
02159>          [ XI M=. 42: TI M=. 52]
02160>          [ LOSS=  2 : CN=  75. 0]
02161>          [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
02162>          [ Impervious     area: I Aimp= 1. 57: SLPI =1. 00: LGI =  566. : MNI =. 013: SCI =    . 0]
02163>          [ IaREC] mp=   4. 00: IaREC per=   4. 00]
02164>          [ SM N=  33. 81:  SMAX=225. 43:  SK=  . 010]
02165> R0002: C00323- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02166>       COMPUTE DUALHYD        1. 0 01: A2              25. 50        1. 427 No_date   28: 04    25. 60   n/ a        .000
02167>          Major System   /      1. 0 02: A2- MJ              . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02168>          Minor System   \      1. 0 03: A2- MN          25. 50        1. 427 No_date   28: 04    25. 60   n/ a        .000
02169>          [ MaSyst o=. 0000E+00,  Tot Ov f Vol =  . 0000E+00,  N- Ov f=     0,  Tot Dur Ov f=     0. hrs]
02170> R0002: C00324- ---------- DTmin: I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- - - - RVmm R. C. - - - DWF cms
02171>       ADD HYD                1. 0 02: TODD_MN2n        2. 10         . 179 No_date   28: 00    28. 91   n/ a        .000
02172>                          +    1. 0 02: TODD_MN3n          . 12         . 010 No_date   28: 00    28. 91   n/ a        .000
02173>                          +    1. 0 02: TODD_Mjj            . 00         . 000 No_date   0: 00      . 00   n/ a        .000
02174>                          +    1. 0 02: TODD_P             3. 06         . 295 No_date   
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02245>          [ Impervious      area: I Aimp= 1. 57: SLPI =1. 00: LGI = 324. : MNI =. 013: SCI =     .0]
02246>          [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02247>          [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02248> R0002: C00335- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02249>          COMPUTE DUALHYD          1. 0  01: Al - Corri g      15. 75        . 982  No_date    28: 02    25. 60    n/ a        . 000
02250>            Major System    /      1. 0  02: Al - MI           . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02251>            Mi nor System    \     1. 0  03: Al - MN         15. 75        . 982  No_date    28: 02    25. 60    n/ a        . 000
02252>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02253> R0002: C00336- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02254>          CONTI NUOUS  NASHYD       1. 0  01: Bl           2. 77        . 033  No_date    28: 09     9. 64    . 212       . 000
02255>          [ CN= 56. 0:  N= 3. 00:  Tp=      . 23]
02256>          [ IaREC i . /  . 00:  SMAX=  79. 69:  SMX%=531. 24:  SK=  . 010]
02257>          [ I nt er Event Ti me=   12. 00]
02258> R0002: C00337- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02259>          CONTI NUOUS  STANDHYD     1. 0  01: A4           1. 27        . 116  No_date    28: 01    32. 20    . 707       . 000
02260>            [ XI MP=. 65: TI MP=. 65]
02261>            [ LOSS=  2 : CN=  75. 0]
02262>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02263>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 253. : MNI =. 013: SCI =     .0]
02264>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02265>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02266> R0002: C00338- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02267>          COMPUTE DUALHYD          1. 0  01: A4           1. 27        . 116  No_date    28: 01    32. 20    n/ a        . 000
02268>            Major System    /      1. 0  02: A4 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02269>            Mi nor System    \     1. 0  03: A4 - MN       1. 27        . 116  No_date    28: 01    32. 20    n/ a        . 000
02270>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02271> R0002: C00339- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02272>          ADD HYD                  1. 0  02: A1 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02273>                              +    1. 0  02: A1 - MN       15. 75        . 982  No_date    28: 02    25. 60    n/ a        . 000
02274>                              +    1. 0  02: corr1 - MI        . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02275>                              +    1. 0  02: corr1 - MN    15. 87       1. 352  No_date    28: 02    31. 77    n/ a        . 000
02276>                              +    1. 0  02: corr2         12. 47        . 100  No_date    29: 12    14. 83    n/ a        . 000
02277>                              +    1. 0  02: Bl             2. 77        . 033  No_date    28: 09     9. 64    n/ a        . 000
02278>                              +    1. 0  02: A4 - MN        1. 27        . 116  No_date    28: 01    32. 20    n/ a        . 000
02279>                          SUM=     1. 0  01: MI I 01       48. 13       2. 497  No_date    28: 02    24. 10    n/ a        . 000
02280> R0002: C00340- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02281>          SAVE HYD                 1. 0  01: MI I 01       48. 13       2. 497  No_date    28: 02    24. 10    n/ a        . 000
02282>            f name : MHI 01. 0002
02283>            r emar k: Tot al  Fl ows  at  MHI 01
02284> R0002: C00341- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02285>          ROUTE PI PE              - >  1. 0  02: MI I 01       48. 13       2. 497  No_date    28: 02    24. 10    n/ a        . 000
02286> *        [ RDT=  1. 00]  out <-       1. 0  01: I 101- 102    48. 13       2. 412  No_date    28: 03    24. 10    n/ a        . 000
02287>          [ L/ S/ n=   368. /  . 540/ . 013]
02288>          [ Vmax=  2. 789: Dmax=   . 935]
02289>          [ Di n=  1. 05: Used=  1. 14]
02290> R0002: C00342- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02291>          ADD HYD                  1. 0  02: A2 - MN       25. 50       1. 427  No_date    28: 04    25. 60    n/ a        . 000
02292>                              +    1. 0  02: I 101- 102    48. 13       2. 412  No_date    28: 03    24. 10    n/ a        . 000
02293>                          SUM=     1. 0  01: MI I 02       73. 63       3. 837  No_date    28: 03    24. 62    n/ a        . 000
02294> R0002: C00343- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02295>          SAVE HYD                 1. 0  01: MI I 02       73. 63       3. 837  No_date    28: 03    24. 62    n/ a        . 000
02296>            f name : MHI 02. 0002
02297>            r emar k: Tot al  Fl ows  at  MHI 02
02298> R0002: C00344- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02299>          CONTI NUOUS  STANDHYD     1. 0  01: A5           1. 60        . 155  No_date    28: 01    34. 21    . 752       . 000
02300>            [ XI MP=. 71: TI MP=. 71]
02301>            [ LOSS=  2 : CN=  75. 0]
02302>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02303>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 300. : MNI =. 013: SCI =     .0]
02304>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02305>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02306> R0002: C00345- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02307>          ADD HYD                  1. 0  02: A4 - MI           . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02308>                              +    1. 0  02: A5             1. 60        . 155  No_date    28: 01    34. 21    n/ a        . 000
02309>                          SUM=     1. 0  01: A5T            1. 60        . 155  No_date    28: 01    34. 21    n/ a        . 000
02310> R0002: C00346- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02311>          COMPUTE DUALHYD          1. 0  01: A5T          1. 60        . 155  No_date    28: 01    34. 21    n/ a        . 000
02312>            Major System    /      1. 0  02: A5 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02313>            Mi nor System    \     1. 0  03: A5 - MN       1. 60        . 155  No_date    28: 01    34. 21    n/ a        . 000
02314>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02315> R0002: C00347- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02316>          ROUTE PI PE              - >  1. 0  02: MHI 02       73. 63       3. 837  No_date    28: 03    24. 62    n/ a        . 000
02317> *        [ RDT=  1. 00]  out <-       1. 0  01: I 102- 103    73. 63       3. 600  No_date    28: 05    24. 62    n/ a        . 000
02318>          [ L/ S/ n=   504. /  . 280/ . 013]
02319>          [ Vmax=  2. 428: Dmax=  1. 243]
02320>          [ Di n=  1. 50: Used=  1. 51]
02321> R0002: C00348- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02322>          ADD HYD                  1. 0  02: I 102- 103    73. 63       3. 600  No_date    28: 05    24. 62    n/ a        . 000
02323>                              +    1. 0  02: A5 - MN        1. 60        . 155  No_date    28: 01    34. 21    n/ a        . 000
02324>                          SUM=     1. 0  01: MHI 03        75. 23       3. 728  No_date    28: 05    24. 82    n/ a        . 000
02325> R0002: C00349- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02326>          SAVE HYD                 1. 0  01: MHI 03        75. 23       3. 728  No_date    28: 05    24. 82    n/ a        . 000
02327>            f name : MHI 03. 0002
02328>            r emar k: Tot al  Fl ows  at  MHI 03
02329> R0002: C00350- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02330>          ROUTE PI PE              - >  1. 0  02: MHI 03       75. 23       3. 728  No_date    28: 05    24. 82    n/ a        . 000
02331>          [ RDT=  1. 00]  out <-       1. 0  01: I 103- 104    75. 23       3. 629  No_date    28: 07    24. 82    n/ a        . 000
02332>          [ L/ S/ n=   438. /  . 460/ . 013]
02333>          [ Vmax=  3. 024: Dmax=   . 924]
02334>          [ Di n=  1. 65: Used=  1. 65]
02335> R0002: C00351- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02336>          CONTI NUOUS  STANDHYD     1. 0  01: A6           1. 56        . 152  No_date    28: 01    34. 21    . 752       . 000
02337>            [ XI MP=. 71: TI MP=. 71]
02338>            [ LOSS=  2 : CN=  75. 0]
02339>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02340>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 280. : MNI =. 013: SCI =     .0]
02341>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02342>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02343> R0002: C00352- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02344>          ADD HYD                  1. 0  02: A5 - MI           . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02345>                              +    1. 0  02: A6             1. 56        . 152  No_date    28: 01    34. 21    n/ a        . 000
02346>                          SUM=     1. 0  01: A6T            1. 56        . 152  No_date    28: 01    34. 21    n/ a        . 000
02347> R0002: C00353- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02348>          COMPUTE DUALHYD          1. 0  01: A6T          1. 56        . 152  No_date    28: 01    34. 21    n/ a        . 000
02349>            Major System    /      1. 0  02: A6 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02350>            Mi nor System    \     1. 0  03: A6 - MN       1. 56        . 152  No_date    28: 01    34. 21    n/ a        . 000
02351>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02352> R0002: C00354- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02353>          ADD HYD                  1. 0  02: A6 - MN        1. 56        . 152  No_date    28: 01    34. 21    n/ a        . 000
02354>                              +    1. 0  02: I 103- 104    75. 23       3. 629  No_date    28: 07    24. 82    n/ a        . 000
02355>                              +    1. 0  02: TODD_Mi n     30. 23       2. 154  No_date    28: 03    29. 64    n/ a        . 000
02356>                          SUM=     1. 0  01: MHI 04       107. 02       5. 765  No_date    28: 05    26. 32    n/ a        . 000
02357> R0002: C00355- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02358>          SAVE HYD                 1. 0  01: MHI 04       107. 02       5. 765  No_date    28: 05    26. 32    n/ a        . 000
02359>            f name : MHI 04. 0002
02360>            r emar k: Tot al  Fl ows  at  MHI 04
02361> R0002: C00356- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02362>          CONTI NUOUS  STANDHYD     1. 0  01: B2           12. 31        . 731  No_date    28: 03    25. 66    . 564       . 000
02363>            [ XI MP=. 41: TI MP=. 54]
02364>            [ LOSS=  2 : CN=  75. 0]
02365>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02366>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 417. : MNI =. 013: SCI =     .0]
02367>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02368>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02369> R0002: C00357- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02370>          COMPUTE DUALHYD          1. 0  01: B2           12. 31        . 731  No_date    28: 03    25. 66    n/ a        . 000
02371>            Major System    /      1. 0  02: B2 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02372>            Mi nor System    \     1. 0  03: B2 - MN       12. 31        . 731  No_date    28: 03    25. 66    n/ a        . 000
02373>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02374> R0002: C00358- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02375>          ROUTE PI PE              - >  1. 0  02: B2 - MN       12. 31        . 731  No_date    28: 03    25. 66    n/ a        . 000
02376>          [ RDT=  1. 00]  out <-       1. 0  01: 315- 333      12. 31        . 675  No_date    28: 04    25. 66    n/ a        . 000
02377>          [ L/ S/ n=   254. /  . 100/ . 013]
02378>          [ Vmax=  1. 136: Dmax=   . 665]
02379>          [ Di n=  1. 20: Used=  1. 20]
02380> R0002: C00359- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02381>          CONTI NUOUS  STANDHYD     1. 0  01: B3           5. 59        . 346  No_date    28: 02    25. 66    . 564       . 000
02382>            [ XI MP=. 41: TI MP=. 54]
02383>            [ LOSS=  2 : CN=  75. 0]
02384>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02385>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 345. : MNI =. 013: SCI =     .0]
02386>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02387>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02388> R0002: C00360- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02389>          COMPUTE DUALHYD          1. 0  01: B3           5. 59        . 346  No_date    28: 02    25. 66    n/ a        . 000
02390>            Major System    /      1. 0  02: B3 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02391>            Mi nor System    \     1. 0  03: B3 - MN       5. 59        . 346  No_date    28: 02    25. 66    n/ a        . 000
02392>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02393> R0002: C00361- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02394>          ADD HYD                  1. 0  02: B3 - MN        5. 59        . 346  No_date    28: 02    25. 66    n/ a        . 000
02395>                              +    1. 0  02: 315- 333      12. 31        . 675  No_date    28: 04    25. 66    n/ a        . 000
02396>                          SUM=     1. 0  01: MHI 33        17. 90       1. 009  No_date    28: 04    25. 66    n/ a        . 000
02397> R0002: C00362- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02398>          SAVE HYD                 1. 0  01: MI 33        17. 90       1. 009  No_date    28: 04    25. 66    n/ a        . 000
02399>            f name : MHI 33. 0002
02400>            r emar k: Tot al  Fl ows  at  MHI 33
02401> R0002: C00363- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02402>          ROUTE PI PE              - >  1. 0  02: MI 33        17. 90       1. 009  No_date    28: 04    25. 66    n/ a        . 000
02403>          [ RDT=  1. 00]  out <-       1. 0  01: 333- 335      17. 90        . 937  No_date    28: 05    25. 66    n/ a        . 000
02404>          [ L/ S/ n=   251. /  . 100/ . 013]
02405>          [ Vmax=  1. 217: Dmax=   . 826]
02406>          [ Di n=  1. 20: Used=  1. 20]
02407> R0002: C00364- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02408>          ROUTE PI PE              - >  1. 0  02: 333- 335      17. 90        . 937  No_date    28: 05    25. 66    n/ a        . 000
02409>          [ RDT=  1. 00]  out <-       1. 0  01: 335- 338      17. 90        . 888  No_date    28: 07    25. 66    n/ a        . 000
02410>          [ L/ S/ n=   185. /  . 100/ . 013]
02411>          [ Vmax=  1. 199: Dmax=   . 782]
02412>          [ Di n=  1. 20: Used=  1. 20]
02413> R0002: C00365- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02414>          ROUTE PI PE              - >  1. 0  02: 335- 338      17. 90        . 888  No_date    28: 07    25. 66    n/ a        . 000
02415>          [ RDT=  1. 00]  out <-       1. 0  01: 338- 340      17. 90        . 838  No_date    28: 08    25. 66    n/ a        . 000
02416>          [ L/ S/ n=   233. /  . 100/ . 013]
02417>          [ Vmax=  1. 194: Dmax=   . 695]
02418>          [ Di n=  1. 35: Used=  1. 35]
02419> R0002: C00366- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02420>          CONTI NUOUS  STANDHYD     1. 0  01: B4           7. 60        . 459  No_date    28: 02    25. 66    n/ a        . 000
02421>            [ XI MP=. 41: TI MP=. 54]
02422>            [ LOSS=  2 : CN=  75. 0]
02423>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02424>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 388. : MNI =. 013: SCI =     .0]
02425>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02426>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02427> R0002: C00367- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02428>          COMPUTE DUALHYD          1. 0  01: B4           7. 60        . 459  No_date    28: 02    25. 66    n/ a        . 000
02429>            Major System    /      1. 0  02: B4 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02430>            Mi nor System    \     1. 0  03: B4 - MN       7. 60        . 459  No_date    28: 02    25. 66    n/ a        . 000
02431>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02432> R0002: C00368- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02433>          ADD HYD                  1. 0  02: 338- 340      17. 90        . 838  No_date    28: 08    25. 66    n/ a        . 000
02434>                              +    1. 0  02: B4 - MN        7. 60        . 459  No_date    28: 02    25. 66    n/ a        . 000
02435>                          SUM=     1. 0  01: MI 40         25. 50       1. 234  No_date    28: 05    25. 66    n/ a        . 000
02436> R0002: C00369- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02437>          SAVE HYD                 1. 0  01: MI 40         25. 50       1. 234  No_date    28: 05    25. 66    n/ a        . 000
02438>            f name : MHI 40. 0002
02439>            r emar k: Tot al  Fl ows  at  MHI 40
02440> R0002: C00370- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02441>          ROUTE PI PE              - >  1. 0  02: MHI 40         25. 50       1. 234  No_date    28: 05    25. 66    n/ a        . 000
02442>          [ RDT=  1. 00]  out <-       1. 0  01: 340- 104      25. 50       1. 182  No_date    28: 07    25. 66    n/ a        . 000
02443>          [ L/ S/ n=   240. /  . 150/ . 013]
02444>          [ Vmax=  1. 502: Dmax=   . 672]
02445>          [ Di n=  1. 65: Used=  1. 65]
02446> R0002: C00371- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02447>          ADD HYD                  1. 0  02: 340- 104      25. 50       1. 182  No_date    28: 07    25. 66    n/ a        . 000
02448>                              +    1. 0  02: MHI 04       107. 02       5. 765  No_date    28: 05    26. 32    n/ a        . 000
02449>                          SUM=     1. 0  01: MHI 04T      132. 52       6. 925  No_date    28: 05    26. 19    n/ a        . 000
02450> R0002: C00372- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02451>          ROUTE PI PE              - >  1. 0  02: MHI 04T      132. 52       6. 925  No_date    28: 05    26. 19    n/ a        . 000
02452>          [ RDT=  1. 00]  out <-       1. 0  01: 104- 105      132. 52       6. 452  No_date    28: 06    26. 19    n/ a        . 000
02453>          [ L/ S/ n=   380. /  . 100/ . 013]
02454>          [ Vmax=  1. 871: Dmax=  1. 542]
02455>          [ HGTH=  2. 10: WIDTH=  2. 40]
02456> R0002: C00373- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02457>          CONTI NUOUS  STANDHYD     1. 0  01: B5           2. 20        . 187  No_date    28: 00    29. 51    . 648       . 000
02458>            [ XI MP=. 57: TI MP=. 57]
02459>            [ LOSS=  2 : CN=  75. 0]
02460>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02461>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 187. : MNI =. 013: SCI =     .0]
02462>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02463>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02464> R0002: C00374- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02465>          COMPUTE DUALHYD          1. 0  01: B5           2. 20        . 187  No_date    28: 00    29. 51    n/ a        . 000
02466>            Major System    /      1. 0  02: B5 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02467>            Mi nor System    \     1. 0  03: B5 - MN       2. 20        . 187  No_date    28: 00    29. 51    n/ a        . 000
02468>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02469> R0002: C00375- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02470>          CONTI NUOUS  STANDHYD     1. 0  01: A8           . 96        . 099  No_date    28: 00    34. 21    . 752       . 000
02471>            [ XI MP=. 71: TI MP=. 71]
02472>            [ LOSS=  2 : CN=  75. 0]
02473>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02474>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 186. : MNI =. 013: SCI =     .0]
02475>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02476>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02477> R0002: C00376- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02478>          ADD HYD                  1. 0  02: A6 - MI           . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02479>                              +    1. 0  02: A8             . 96        . 099  No_date    28: 00    34. 21    n/ a        . 000
02480>                          SUM=     1. 0  01: A8T            . 96        . 099  No_date    28: 00    34. 21    n/ a        . 000
02481> R0002: C00377- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02482>          COMPUTE DUALHYD          1. 0  01: A8T          . 96        . 099  No_date    28: 00    34. 21    n/ a        . 000
02483>            Major System    /      1. 0  02: A8 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02484>            Mi nor System    \     1. 0  03: A8 - MN         . 96        . 099  No_date    28: 00    34. 21    n/ a        . 000
02485>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02486> R0002: C00378- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02487>          ADD HYD                  1. 0  02: 104- 105      132. 52       6. 452  No_date    28: 06    26. 19    n/ a        . 000
02488>                              +    1. 0  02: B5 - MN        2. 20        . 187  No_date    28: 00    29. 51    n/ a        . 000
02489>                              +    1. 0  02: A8 - MN         . 96        . 099  No_date    28: 00    34. 21    n/ a        . 000
02490>                              +    1. 0  02: TODD_MNSj       . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02491>                          SUM=     1. 0  01: MHI 06       135. 68       6. 624  No_date    28: 06    26. 30    n/ a        . 000
02492> R0002: C00379- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02493>          SAVE HYD                 1. 0  01: MHI 05       135. 68       6. 624  No_date    28: 06    26. 30    n/ a        . 000
02494>            f name : MHI 05. 0002
02495>            r emar k: Tot al  Fl ows  at  MHI 05
02496> R0002: C00380- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02497> *        DI VERT HYD              - >  1. 0  02: A8 - MI           . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02498>                       diverted <=     1. 0  02: A8 - MJ R         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02499>                       diverted <=     1. 0  03: A8 - MJ B6        . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02500> R0002: C00381- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02501>          DI VERT HYD              - >  1. 0  01: MHI 05       135. 68       6. 624  No_date    28: 06    26. 30    n/ a        . 000
02502>                       diverted <=     1. 0  02: B6 - B5 JR      16. 59       3. 620  No_date    28: 06    26. 30    n/ a        . 000
02503>                       diverted <=     1. 0  03: MHI 05- B6     119. 09       3. 004  No_date    28: 06    26. 30    n/ a        . 000
02504> R0002: C00382- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02505>          CONTI NUOUS  STANDHYD     1. 0  01: B7           7. 19        . 479  No_date    28: 01    25. 66    . 564       . 000
02506>            [ XI MP=. 41: TI MP=. 54]
02507>            [ LOSS=  2 : CN=  75. 0]
02508>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02509>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 211. : MNI =. 013: SCI =     .0]
02510>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02511>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02512> R0002: C00383- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02513>          ADD HYD                  1. 0  02: B4 - MI           . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02514>                              +    1. 0  02: B7             7. 19        . 479  No_date    28: 01    25. 66    n/ a        . 000
02515>                          SUM=     1. 0  01: B7- B4MI       7. 19        . 479  No_date    28: 01    25. 66    n/ a        . 000
02516> R0002: C00384- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02517>          COMPUTE DUALHYD          1. 0  01: B7- B4MI       7. 19        . 479  No_date    28: 01    25. 66    n/ a        . 000
02518>            Major System    /      1. 0  02: B7R- MI          . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02519>            Mi nor System    \     1. 0  03: B7R- MN        7. 19        . 479  No_date    28: 01    25. 66    n/ a        . 000
02520>          [ MJ SysSt o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02521> R0002: C00385- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02522>          ROUTE PI PE              - >  1. 0  02: B7R- MN        7. 19        . 479  No_date    28: 01    25. 66    n/ a        . 000
02523>          [ RDT=  1. 00]  out <-       1. 0  01: 360- 106A     7. 19        . 451  No_date    28: 02    25. 66    n/ a        . 000
02524>          [ L/ S/ n=   167. /  . 100/ . 013]
02525>          [ Vmax=  1. 023: Dmax=   . 558]
02526>          [ Di n=  1. 05: Used=  1. 05]
02527> R0002: C00386- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02528>          CONTI NUOUS  STANDHYD     1. 0  01: B6           3. 29        . 229  No_date    28: 00    25. 66    . 564       . 000
02529>            [ XI MP=. 41: TI MP=. 54]
02530>            [ LOSS=  2 : CN=  75. 0]
02531>            [ Pervious       area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=     .0]
02532>            [ I mpervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 148. : MNI =. 013: SCI =     .0]
02533>            [ IaREC i mp=    4. 00: IaRECper=     4. 00]
02534>            [ SMI N= 33. 81:  SMAX=225. 43:  SK=  . 010]
02535> R0002: C00387- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02536>          COMPUTE DUALHYD          1. 0  01: B6           3. 29        . 229  No_date    28: 00    25. 66    n/ a        . 000
02537>            Major System    /      1. 0  02: B6 - MI         . 00        . 000  No_date    0: 00     . 00      n/ a        . 000
02538>            Mi nor System    \     1. 0  03: B6 - MN       3. 29        . 064  No_date    27: 43    25. 67    n/ a        . 000
02539>          [ MJ SysSt o=. 1576E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
02540> R0002: C00388- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02541>          CONTI
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02619>        [ Impervious      area: I Aimp= 1. 57: SLPI =1. 00: LGI = 183. : MNI =. 013: SCI =    .0]
02620>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02621>        [ SMI N= 33. 81:  SMXX=225. 43:  SK=  . 010]
02622> R0002: C00402-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02623>        COMPUTE DUALHYD          1. 0 01: AI 0          4. 14      . 246 No_date   28: 01   23. 49   n/a      . 000
02624>          Major System    /      1. 0 02: AI 0- MI        . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02625>          Minor System    \      1. 0 03: AI 0- MN       4. 14      . 246 No_date   28: 01   23. 49   n/a      . 000
02626>        [ MJSysSto= . 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
02627> R0002: C00403-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02628>        CONTI NUOUS STANDHYD     1. 0 01: AI 1         10. 61      . 781 No_date   28: 02   29. 20   . 642    . 000
02629>        [ XI MP= . 53: TI MP= . 62]
02630>        [ LOSS= 2 : CN= 75. 0]
02631>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02632>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 379. : MNI =. 013: SCI =    .0]
02633>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02634>        [ SMI N= 33. 81:  SMXX=225. 43:  SK=  . 010]
02635> R0002: C00404-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02636>        COMPUTE DUALHYD          1. 0 01: AI 1         10. 61      . 781 No_date   28: 02   29. 20   n/a      . 000
02637>          Major System    /      1. 0 02: AI 1- MI        . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02638>          Minor System    \      1. 0 03: AI 1- MN       10. 61      . 781 No_date   28: 02   29. 20   n/a      . 000
02639>        [ MJSysSto= . 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
02640> R0002: C00405-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02641>        ADD HYD                  1. 0 02: 106- 107     132. 01     3. 602 No_date   28: 06   26. 40   n/a      . 000
02642>                             +    1. 0 02: AI 0- MN       4. 14      . 246 No_date   28: 01   23. 49   n/a      . 000
02643>                             +    1. 0 02: AI 1- MN      10. 61      . 781 No_date   28: 02   29. 20   n/a      . 000
02644>                           SUM=   1. 0 01: MI 107       146. 76     4. 589 No_date   28: 02   26. 52   n/a      . 000
02645> R0002: C00406-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02646>        SAVE HYD                 1. 0 01: MI 107       146. 76     4. 589 No_date   28: 02   26. 52   n/a      . 000
02647>          fname : MI 107. 0002
02648>          remark: Total Flows at  MI 107
02649> R0002: C00407-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02650>        ROUTE PI PE          ->  1. 0 02: MI 107       146. 76     4. 589 No_date   28: 02   26. 52   n/a      . 000
02651> *      [ RDT= 1. 00]  out <-    1. 0 01: 107- 119     146. 76     4. 493 No_date   28: 07   26. 52   n/a      . 000
02652>          [ LSI S= . 114. /  . 120/ . 013]
02653>          [ Vmax= 1. 848: Dmax= 1. 558]
02654>          [ Di n= 1. 80: Used= 1. 90]
02655> R0002: C00408-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02656>        ROUTE PI PE          ->  1. 0 02: 107- 119     146. 76     4. 493 No_date   28: 07   26. 52   n/a      . 000
02657> *      [ RDT= 1. 00]  out <-    1. 0 01: 119- 108     146. 76     4. 469 No_date   28: 07   26. 52   n/a      . 000
02658>          [ LSI S= .  66. /  . 120/ . 013]
02659>          [ Vmax= 1. 838: Dmax= 1. 546]
02660>          [ Di n= 1. 80: Used= 1. 88]
02661> R0002: C00409-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02662>        CONTI NUOUS STANDHYD     1. 0 01: AI 2         12. 29      . 834 No_date   28: 01   25. 66   . 564    . 000
02663>        [ XI MP= . 41: TI MP= . 54]
02664>        [ LOSS= 2 : CN= 75. 0]
02665>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02666>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 183. : MNI =. 013: SCI =    .0]
02667>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02668>        [ SMI N= 33. 81:  SMXX=225. 43:  SK=  . 010]
02669> R0002: C00410-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02670>        COMPUTE DUALHYD          1. 0 01: AI 2         12. 29      . 834 No_date   28: 01   25. 66   n/a      . 000
02671>          Major System    /      1. 0 02: AI 2- MI        . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02672>          Minor System    \      1. 0 03: AI 2- MN       12. 29      . 834 No_date   28: 01   25. 66   n/a      . 000
02673>        [ MJSysSto= . 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
02674> R0002: C00411-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02675>        CONTI NUOUS STANDHYD     1. 0 01: AI 3          2. 59      . 239 No_date   28: 02   34. 21   . 752    . 000
02676>        [ XI MP= . 71: TI MP= . 71]
02677>        [ LOSS= 2 : CN= 75. 0]
02678>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02679>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 379. : MNI =. 013: SCI =    .0]
02680>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02681>        [ SMI N= 33. 81:  SMXX=225. 43:  SK=  . 010]
02682> R0002: C00412-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02683>        COMPUTE DUALHYD          1. 0 01: AI 3          2. 59      . 239 No_date   28: 02   34. 21   n/a      . 000
02684>          Major System    /      1. 0 02: AI 3- MI        . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02685>          Minor System    \      1. 0 03: AI 3- MN        2. 59      . 239 No_date   28: 02   34. 21   n/a      . 000
02686> R0002: C00413-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02687>        CONTI NUOUS STANDHYD     1. 0 01: Pond- Block      2. 94      . 190 No_date   28: 01   24. 31   . 534    . 000
02688>        [ XI MP= . 41: TI MP= . 41]
02689>        [ LOSS= 2 : CN= 75. 0]
02690>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02691>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 183. : MNI =. 013: SCI =    .0]
02692>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02693>        [ SMI N= 33. 81:  SMXX=225. 43:  SK=  . 010]
02694> R0002: C00414-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02695>        ADD HYD                  1. 0 02: 119- 108     146. 76     4. 469 No_date   28: 07   26. 52   n/a      . 000
02696>                             +    1. 0 02: AI 3- MN       2. 59      . 239 No_date   28: 02   34. 21   n/a      . 000
02697>                             +    1. 0 02: AI 2- MN      12. 29      . 834 No_date   28: 01   25. 66   n/a      . 000
02698>                           SUM=   1. 0 01: MI 108       161. 64     5. 450 No_date   28: 03   26. 58   n/a      . 000
02699> R0002: C00415-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02700>        SAVE HYD                 1. 0 01: MI 108       161. 64     5. 450 No_date   28: 03   26. 58   n/a      . 000
02701>          fname : MI 108. 0002
02702>          remark: Total Flows at  MI 108
02703> R0002: C00416-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02704>        ROUTE PI PE          ->  1. 0 02: MI 108       161. 64     5. 450 No_date   28: 03   26. 58   n/a      . 000
02705> *      [ RDT= 1. 00]  out <-    1. 0 01: 108- 116     161. 64     5. 396 No_date   28: 04   26. 58   n/a      . 000
02706>          [ LSI S= .  77. /  . 130/ . 013]
02707>          [ Vmax= 1. 987: Dmax= 1. 637]
02708>          [ Di n= 1. 80: Used= 1. 99]
02709> R0002: C00417-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02710>        ROUTE PI PE          ->  1. 0 02: 108- 116     161. 64     5. 396 No_date   28: 04   26. 58   n/a      . 000
02711> *      [ RDT= 1. 00]  out <-    1. 0 01: 116- corrig  161. 64     5. 363 No_date   28: 04   26. 58   n/a      . 000
02712>          [ LSI S= .  80. /  . 130/ . 013]
02713>          [ Vmax= 1. 983: Dmax= 1. 631]
02714>          [ Di n= 1. 80: Used= 1. 99]
02715> R0002: C00418-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02716>        ADD HYD                  1. 0 02: 116- corrig  161. 64     5. 363 No_date   28: 04   26. 58   n/a      . 000
02717>                             +    1. 0 02: Pond- Block      2. 94      . 190 No_date   28: 01   24. 31   n/a      . 000
02718>                           SUM=   1. 0 01: Corrigan     164. 58     5. 522 No_date   28: 04   26. 54   n/a      . 000
02719> R0002: C00419-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02720>        SAVE HYD                 1. 0 01: Corrigan     164. 58     5. 522 No_date   28: 04   26. 54   n/a      . 000
02721>          fname : Corrigan. 0002
02722>          remark: HYD_COMMENT=[" Total Flows at Corrigan Pond]
02723> R0002: C00420-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02724>        ROUTE RESERVOI R  ->     1. 0 02: Corrigan     164. 58     5. 522 No_date   28: 04   26. 54   n/a      . 000
02725>                          out <=   1. 0 01: Co- P        164. 58     4. 479 No_date   28: 12   26. 54   n/a      . 000
02726>                overflow <=      1. 0 03: Co- P- OVF       . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02727>        [ MkSt ol ked=. 9246E+00  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
02728> R0002: C00421-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02729>        ADD HYD                  1. 0 02: Co- P- OVF       . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02730>                             +    1. 0 02: Co- P         164. 58     4. 479 No_date   28: 12   26. 54   n/a      . 000
02731>                             +    1. 0 02: N_TO        54837. 69    48. 890 No_date   38: 55   13. 18   n/a      . 000
02732>                             +    1. 0 02: MI 105- JR      16. 59     3. 620 No_date   28: 06   26. 30   n/a      . 000
02733>                             +    1. 0 02: AR- MI - JR      . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02734>                             +    1. 0 02: AO- MI           . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02735>                             +    1. 0 02: AI 0- MI         . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02736>                             +    1. 0 02: AI 1- MI         . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02737>                             +    1. 0 02: AI 2- MI         . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02738>                             +    1. 0 02: AI 3- MI         . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02739>                           SUM=   1. 0 01: corrig      55018. 86    49. 095 No_date   38: 55   13. 18   n/a      . 000
02740> R0002: C00422-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02741>        SAVE HYD                 1. 0 01: corrig       55018. 86    49. 095 No_date   38: 55   13. 18   n/a      . 000
02742>          fname : corrig. 0002
02743>          remark: Total Flows at Corrigan Pond
02744> #*************************************************************************
02745> #     Corrigan Pond 1
02746> #     - Rating curve obtained from Barrhaven South MSS modeling
02747> #     - Tributary Drainage Area to MSS Pond 1 = 145 ha
02748> #*************************************************************************
02749> #
02750> # Hydrograph from Corrigan Drain routed to Jockvale Road
02751> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
02752> #
02753> R0002: C00423-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02754>        ROUTE CHANNEL        ->  1. 0 02: corrig       55018. 86    49. 095 No_date   38: 55   13. 18   n/a      . 000
02755>          [ RDT= 1. 00]  out <-    1. 0 01: N_MI       55018. 86    49. 093 No_date   38: 58   13. 18   n/a      . 000
02756>          [ LSI S= .  580. /  . 445/ . 045]
02757>          [ Vmax= 1. 454: Dmax= 1. 224]
02758> #*************************************************************************
02759> #     Catchment MILLS
02760> #     - To SWM Facility north of the Jock
02761> #     - Primarily residental development
02762> #*************************************************************************
02763> R0002: C00424-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02764>        CONTI NUOUS STANDHYD     1. 0 01: MI LLS       175. 99      7. 048 No_date   28: 08   22. 75   . 500    . 000
02765>        [ XI MP= . 38: TI MP= . 38]
02766>        [ LOSS= 2 : CN= 74. 0]
02767>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02768>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1118. : MNI =. 013: SCI =    .0]
02769>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02770>        [ SMI N= 36. 67:  SMXX=244. 49:  SK=  . 010]
02771> #*************************************************************************
02772> #     Chapman Mills SWM Pond
02773> #     - Rating curve obtained from CCL hydraulic modeling
02774> #*************************************************************************
02775> R0002: C00425-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02776>        ROUTE RESERVOI R  ->     1. 0 02: MI LLS       175. 99      7. 048 No_date   28: 08   22. 75   n/a      . 000
02777>                          out <=   1. 0 01: MI LL_P      175. 99      2. 401 No_date   28: 46   22. 75   n/a      . 000
02778>                overflow <=      1. 0 03: MI L- OV          . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02779>        [ MkSt ol ked=. 1446E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
02780> R0002: C00426-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02781>        ADD HYD                  1. 0 02: N_MI       55018. 86    49. 093 No_date   38: 58   13. 18   n/a      . 000
02782>                             +    1. 0 02: MI L- OV         . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02783>                             +    1. 0 02: MI LL_P       175. 99      2. 401 No_date   28: 46   22. 75   n/a      . 000
02784>                           SUM=   1. 0 01: SN_MI       55194. 85    49. 313 No_date   38: 56   13. 21   n/a      . 000
02785> R0002: C00427-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02786>        SAVE HYD                 1. 0 01: SN_MI        55194. 85    49. 313 No_date   38: 56   13. 21   n/a      . 000
02787>          fname : SN_MI . 0002
02788>          remark: Total Flows at Jockvale Road
02789> #
02790> # Hydrograph from Jockvale Road routed to Heart's Desire
02791> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
02792> #
02793> R0002: C00428-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02794>        ROUTE CHANNEL        ->  1. 0 02: SN_MI       55194. 85    49. 313 No_date   38: 56   13. 21   n/a      . 000
02795>          [ RDT= 1. 00]  out <-    1. 0 01: N_DE       55194. 85    49. 260 No_date   39: 17   13. 21   n/a      . 000
02796>          [ LSI S= x 1962. /  . 223/ . 045]
02797>          [ Vmax= 1. 144: Dmax= 1. 611]
02798> #*************************************************************************
02799> #     Catchment DESIRE
02800> #     - To Jock River (north of the Jock)
02801> #     - Rural-estate subdivision (Heart's Desire Community)
02802> #*************************************************************************
02803> R0002: C00429-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02804>        CONTI NUOUS STANDHYD     1. 0 01: DESI RE      23. 78      . 936 No_date   28: 03   19. 26   . 423    . 000
02805>        [ XI MP= . 25: TI MP= . 25]
02806>        [ LOSS= 2 : CN= 77. 0]
02807>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02808>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 400. : MNI =. 013: SCI =    .0]
02809>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02810>        [ SMI N= 31. 15:  SMXX=207. 66:  SK=  . 010]
02811> #*************************************************************************
02812> #     Catchment JOCKVA
02813> #     - To Jockvale SWM Facility
02814> #     - Residential development & golf course
02815> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
02816> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX- LAND 32.5 ha as
02817> #*************************************************************************
02818> R0002: C00430-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02819>        CONTI NUOUS STANDHYD     1. 0 01: JOCKVA       225. 13     10. 636 No_date   28: 10   26. 85   . 590    . 000
02820>        [ XI MP= . 50: TI MP= . 50]
02821>        [ LOSS= 2 : CN= 74. 0]
02822>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
02823>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1311. : MNI =. 013: SCI =    .0]
02824>        [ IaRECi mp=    4. 00: IaRECper=    4. 00]
02825>        [ SMI N= 36. 67:  SMXX=244. 49:  SK=  . 010]
02826> R0002: C00431-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02827>        ADD HYD                  1. 0 02: EX- LAND- MN      32. 50      2. 093 No_date   28: 02   26. 85   n/a      . 000
02828>                             +    1. 0 02: JOCKVA       225. 13     10. 636 No_date   28: 10   26. 85   n/a      . 000
02829>                             +    1. 0 02: B2- MI           . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02830>                             +    1. 0 02: B3- MI           . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02831>                           SUM=   1. 0 01: JOCKVA- TO    257. 63     12. 234 No_date   28: 07   26. 85   n/a      . 000
02832> R0002: C00432-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02833>        SAVE HYD                 1. 0 01: JOCKVA- TO    257. 63     12. 234 No_date   28: 07   26. 85   n/a      . 000
02834>          fname : JOCKVA- TO. 0002
02835>          remark: Total Flows at KB first pond
02836> #*************************************************************************
02837> #     Jockvale SWM Facility
02838> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
02839> #*************************************************************************
02840> R0002: C00433-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02841>        ROUTE RESERVOI R  ->     1. 0 02: JOCKVA- TO    257. 63     12. 234 No_date   28: 07   26. 85   n/a      . 000
02842>                          out <=   1. 0 01: JOCK_P       257. 63      2. 560 No_date   29: 05   26. 85   n/a      . 000
02843>                overflow <=      1. 0 03: JO- OVF           . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02844>        [ MkSt ol ked=. 3334E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =    0,  Tot Dur Or f =    0. hrs]
02845> R0002: C00434-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02846>        ADD HYD                  1. 0 02: N_DE         55194. 85    49. 260 No_date   39: 17   13. 21   n/a      . 000
02847>                             +    1. 0 02: DESI RE         23. 78      . 936 No_date   28: 03   19. 26   n/a      . 000
02848>                             +    1. 0 02: JO- OVF          . 00      . 000 No_date   0: 00     . 00   n/a      . 000
02849>                             +    1. 0 02: JOCK_P       257. 63      2. 560 No_date   29: 05   26. 85   n/a      . 000
02850>                           SUM=   1. 0 01: SN_DE        55476. 26    49. 606 No_date   39: 13   13. 27   n/a      . 000
02851> R0002: C00435-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02852>        SAVE HYD                 1. 0 01: SN_DE        55476. 26    49. 606 No_date   39: 13   13. 27   n/a      . 000
02853>          fname : SN_DE. 0002
02854>          remark: Total Flows at Heart's Desire
02855> #
02856> # Hydrograph from Heart's Desire routed to Rideau River
02857> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
02858> #
02859> R0002: C00436-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02860>        ROUTE CHANNEL        ->  1. 0 02: SN_DE        55476. 26    49. 606 No_date   39: 13   13. 27   n/a      . 000
02861>          [ RDT= 1. 00]  out <-    1. 0 01: NI           55476. 26    49. 604 No_date   39: 19   13. 27   n/a      . 000
02862>          [ LSI S= .  563. /  . 967/ . 045]
02863>          [ Vmax= 1. 490: Dmax=  . 801]
02864> #*************************************************************************
02865> #     Catchment S- 2
02866> #     - To Jock River (north and south)
02867> #     - Undeveloped floodplain and river
02868> #*************************************************************************
02869> R0002: C00437-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02870>        CONTI NUOUS NASHYD       1. 0 01: S- 2         102. 94      1. 373 No_date   28: 20   13. 01   . 286    . 000
02871>        [ CN= 72. 0:  N= 3. 00:  Tp=  . 40]
02872>        [ IaREC= 4. 00:  SMN= 39. 75:  SMXX=264. 99:  SK=  . 010]
02873>        [ InterEventTime=  12. 00]
02874> R0002: C00438-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02875>        ADD HYD                  1. 0 02: NI           55476. 26    49. 604 No_date   39: 19   13. 27   n/a      . 000
02876>                             +    1. 0 02: S- 2         102. 94      1. 373 No_date   28: 20   13. 01   n/a      . 000
02877>                           SUM=   1. 0 01: SN_NI        55579. 20    49. 703 No_date   39: 19   13. 27   n/a      . 000
02878> R0002: C00439-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02879>        SAVE HYD                 1. 0 01: SN_NI        55579. 20    49. 703 No_date   39: 19   13. 27   n/a      . 000
02880>          fname : SN_NI. 0002
02881>          remark: Total Flows at Rideau River
02882> ##############################################################################
02883>   ** END OF RUN :    4
02884>
02885> ******************************************************************************
02886>
02887>
02888>
02889>
02890>
02891>  RUN#: COMMAND#
02892> R0005: C00001-------------------------------------------------------------------
02893>        START
02894>          [ TZERO =     . 00 hrs on          0]
02895>          [ METOUT=    2    (1=imperial, 2=metric output)]
02896>          [ NSTORM=    1 ]
02897>          [ NRUN  =  0005 ]
02898> #*************************************************************************
02899> #   SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
02900> #*************************************************************************
02901> #   Project Name: [ Jock Ri ver]      Project Number: [ 1474- 16]
02902> #   Date        : 04- 03- 2021
02903> #   Modeller    : [ MM]
02904> #   Company     : JFSAi nc.
02905> #   License #   :  2549237
02906> #*************************************************************************
02907> # CALIBRATION OF SUMMER MODEL PARAMETERS
02908> # USING CONTINUOUS SIMULATIONS
02909> # Rainfall data from JFSA Campaign installed at site + other gauges by the City
02910> # Use data collected from May 1st to July 14, 2003
02911> # 2020-11-30 change TMSTO in COMPUTE DUALHYD ( TMSTO = 0. 1 instead of 0. 0001)
02912> # 2020-12-01 correct pond curve values
02913> # 2020-12-01 change W_CLAR_BRAZ XIMP to 0. 55, SLPI =[ 0. 5]( %) ( impervious slope), and LGI up to 700m
02914> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 ( NHYDout=[ "N_TO" ] , NHYDin=[ "SN_TO" ]) from 0. 033 %( as per S
02915> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 ( NHYDout=[ "N_WC" ] , NHYDin=[ "SN_CE" ]) from 0. 01 %( as per St
02916> # ------------------------------------------------------------------------
02917> R0005: C00002-------------------------------------------------------------------
02918>        READ STORM
02919>          Filename = storm 001
02920>          Comment  = Pluie SCS de 24 hres 1: 5 ans pour Ottawa CDA
02921>          [ SDT=10. 00:  SDUR=  24. 00:  PTOT=  57. 12]
02922> R0005: C00003-------------------------------------------------------------------
02923>        MODIFY STORM
02924>          [ REFAC=  1. 00:  TSHIFT=  960. 00 min]
02925>          [ SDT=10. 00:  SDUR=  40. 00:  PTOT=  57. 12]
02926> R0005: C00004-------------------------------------------------------------------
02927>        DEFAULT VALUES
02928>          Filename = T: \ PROJ\ 1474- 16\ Design\ 20201026- QuantityControlAnalysis\ SWMHYMO_SMR- Model\ updated3\ CitiGate. DEF
02929>          [ CASEdv   = 1 (read and print data)
02930>          FileTitle= File comment: [ Based onvarious calibration exercises in Onta
02931>                     THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
02932>          Horton's infiltration equation parameters:
02933>          [ Fo= 76. 20 mm/ hr]  [ Fc=13. 20 mm/ hr]  [ DCAY= . 14 / hr]  [ F=  . 00 mm]
02934>          Parameters for PERVIOUS surfaces in STANDHYD:
02935>          [ IAper=    4. 67 mm]  [ LGP=50. 00 m]  [ MNP=  . 250]
02936>          Parameters for IMPERVIOUS surfaces in STANDHYD:
02937>          [ IAimp=    1. 57 mm]  [ CLI=  1. 50]  [ MNI=  . 013]
02938>          Parameters used in NASHYD:
02939>          [ Ia=    4. 67 mm]  [ N= 3. 00]
02940>          Average monthly Pan Evaporation data in    ( mm):
02941>  JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
02942>  . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
02943>          Average monthly Potential Evapotranspiration in    ( mm):
02944>  JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
02945>  . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
02946> R0005: C00005-------------------------------------------------------------------
02947>        COMPUTE API
02948>          [ APIini= 50. 00:  APIkdy=  . 8500:  APIkdt=  . 9989]
02949>          [ APImax= 90. 83:  APIavg= 60. 09:  APImin=  44. 87]
02950> #
02951> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
02952> # of 1. 32
02953> R0005: C00006-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02954>        CONTI NUOUS NASHYD       1. 0 01: JR_HW        3680. 00      9. 398 No_date   37: 02   16. 41   . 287    . 000
02955>        [ CN= 64. 0:  N= 3. 00:  Tp= 7. 13]
02956>        [ IaREC= 4. 00:  SMN=  57. 05:  SMXX=380. 32:  SK=  . 010]
02957>        [ InterEventTime=  12. 00]
02958> #
02959> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
02960> # of 1. 32
02961> R0005: C00007-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02962>        CONTI NUOUS NASHYD       1. 0 01: SW_13         971. 00      3. 405 No_date   32: 36   15. 29   . 268    . 000
02963>        [ CN= 61. 0:  N= 3. 00:  Tp= 3. 76]
02964>        [ IaREC= 4. 00:  SMN= 64. 50:  SMXX=430. 01:  SK=  . 010]
02965>        [ InterEventTime=  12. 00]
02966> #
02967> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
02968> # of 1. 80
02969> R0005: C00008-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02970>        CONTI NUOUS NASHYD       1. 0 01: JR_GWM       3074. 00      4. 682 No_date   39: 59   13. 23   . 232    . 000
02971>        [ CN= 55. 0:  N= 3. 00:  Tp=11. 31]
02972>        [ IaREC= 4. 00:  SMN= 83. 24:  SMXX=554. 96:  SK=  . 010]
02973>        [ InterEventTime=  12. 00]
02974> R0005: C00009-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02975>        CONTI NUOUS NASHYD       1. 0 01: JR_ASH       1781. 00      8. 521 No_date   32: 43   20. 12   . 352    . 000
02976>        [ CN= 72. 0:  N= 3. 00:  Tp= 3. 91]
02977>        [ IaREC= 4. 00:  SMN= 39. 75:  SMXX=264. 99:  SK=  . 010]
02978>        [ InterEventTime=  12. 00]
02979> R0005: C00010-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02980>        CONTI NUOUS NASHYD       1. 0 01: SW_11         500. 00      4. 354 No_date   29: 22   17. 18   . 301    . 000
02981>        [ CN= 66. 0:  N= 3. 00:  Tp= 1. 24]
02982>        [ IaREC= 4. 00:  SMN= 52. 62:  SMXX=350. 79:  SK=  . 010]
02983>        [ InterEventTime=  12. 00]
02984> #
02985> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
02986> # of 1. 80
02987> R0005: C00011-------------DTmin-I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
02988>        CONTI NUOUS NASHYD       1. 0 01: SN_CK        1917. 00      6. 210 No_date   34: 31   17. 18   . 301    . 000
02989>        [ CN= 66. 0:  N= 3. 00:  Tp= 5. 29]
02990>        [ IaREC= 4. 00:  SMN= 52. 62:  SMXX=350. 79:  SK=  . 010]
02991>        [ InterEventTime=  12. 00]
02992> #
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02993> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
02994> # of 1.52
02995> R0005: C00012-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
02996>      CONTINUOUS NASHYD       1.0 01:SW_10          5666.00   16.924 No_date   38:02   20.12 .352     .000
02997>        [CN= 72.0: N= 3.00: Tp= 8.00]
02998>        [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
02999>        [InterEventTime= 12.00]
03000> #
03001> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03002> # of 1.75
03003> R0005: C00013-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03004>      CONTINUOUS NASHYD       1.0 01:KG_CK          8376.00   16.342 No_date   39:59   17.18 .301     .000
03005>        [CN= 66.0: N= 3.00: Tp=11.66]
03006>        [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
03007>        [InterEventTime= 12.00]
03008> #
03009> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03010> # of 1.68
03011> R0005: C00014-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03012>      CONTINUOUS NASHYD       1.0 01:SW_9           1132.00    6.963 No_date   30:55   19.24 .337     .000
03013>        [CN= 70.0: N= 3.00: Tp= 2.51]
03014>        [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
03015>        [InterEventTime= 12.00]
03016> #
03017> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03018> # of 1.82
03019> R0005: C00015-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03020>      CONTINUOUS NASHYD       1.0 01:NC_CK          4464.00    8.109 No_date   39:59   15.66 .274     .000
03021>        [CN= 62.0: N= 3.00: Tp=11.32]
03022>        [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
03023>        [InterEventTime= 12.00]
03024> #
03025> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03026> # of 1.80
03027> R0005: C00016-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03028>      CONTINUOUS NASHYD       1.0 01:SW_8           131.00    1.298 No_date   28:57   16.03 .281     .000
03029>        [CN= 63.0: N= 3.00: Tp= .90]
03030>        [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
03031>        [InterEventTime= 12.00]
03032> #
03033> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03034> # of 1.65
03035> R0005: C00017-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03036>      CONTINUOUS NASHYD       1.0 01:HB_DR          3854.00    9.385 No_date   38:41   17.18 .301     .000
03037>        [CN= 66.0: N= 3.00: Tp= 8.42]
03038>        [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
03039>        [InterEventTime= 12.00]
03040> #
03041> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03042> # of 1.82
03043> R0005: C00018-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03044>      CONTINUOUS NASHYD       1.0 01:SW_7           3197.00    7.027 No_date   36:28   13.89 .243     .000
03045>        [CN= 57.0: N= 3.00: Tp= 6.65]
03046>        [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
03047>        [InterEventTime= 12.00]
03048> #
03049> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03050> # of 1.75
03051> R0005: C00019-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03052>      CONTINUOUS NASHYD       1.0 01:SW_6           165.00     .641 No_date   33:06   17.58 .308     .000
03053>        [CN= 67.0: N= 3.00: Tp= 4.18]
03054>        [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
03055>        [InterEventTime= 12.00]
03056> #
03057> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03058> # of 1.67
03059> R0005: C00020-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03060>      CONTINUOUS NASHYD       1.0 01:VG_DR          1332.00    4.803 No_date   35:19   20.12 .352     .000
03061>        [CN= 72.0: N= 3.00: Tp= 5.95]
03062>        [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
03063>        [InterEventTime= 12.00]
03064> R0005: C00021-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03065>      CONTINUOUS NASHYD       1.0 01:SW_5           224.00    4.100 No_date   28:45   22.97 .402     .000
03066>        [CN= 77.0: N= 3.00: Tp= .75]
03067>        [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
03068>        [InterEventTime= 12.00]
03069> #
03070> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03071> # of 1.20
03072> R0005: C00022-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03073>      CONTINUOUS NASHYD       1.0 01:FL_CK          4945.00   22.837 No_date   33:22   21.04 .368     .000
03074>        [CN= 74.0: N= 3.00: Tp= 4.45]
03075>        [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
03076>        [InterEventTime= 12.00]
03077> R0005: C00023-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03078>      CONTINUOUS NASHYD       1.0 01:SW_5A2          20.00     .483 No_date   28:36   25.62 .448     .000
03079>        [CN= 81.0: N= 3.00: Tp= .62]
03080>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
03081>        [InterEventTime= 12.00]
03082> #
03083> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
03084> # of 1.61
03085> R0005: C00024-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03086>      CONTINUOUS NASHYD       1.0 01:SW_5A1         1412.00    4.646 No_date   37:58   21.98 .385     .000
03087>        [CN= 75.0: N= 3.00: Tp= 8.00]
03088>        [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
03089>        [InterEventTime= 12.00]
03090> R0005: C00025-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03091>      CONTINUOUS NASHYD       1.0 01:SW_4           585.00    6.688 No_date   29:57   25.62 .448     .000
03092>        [CN= 81.0: N= 3.00: Tp= 1.75]
03093>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
03094>        [InterEventTime= 12.00]
03095> R0005: C00026-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03096>      CONTINUOUS NASHYD       1.0 01:LM_CK          1021.00    8.861 No_date   30:48   25.07 .439     .000
03097>        [CN= 80.0: N= 3.00: Tp= 2.46]
03098>        [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
03099>        [InterEventTime= 12.00]
03100> R0005: C00027-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03101>      CONTINUOUS NASHYD       1.0 01:SW_2           177.00    3.240 No_date   28:45   22.97 .402     .000
03102>        [CN= 77.0: N= 3.00: Tp= .75]
03103>        [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
03104>        [InterEventTime= 12.00]
03105> R0005: C00028-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03106>      CONTINUOUS NASHYD       1.0 01:SM_DR          1122.00    8.165 No_date   31:48   25.62 .448     .000
03107>        [CN= 81.0: N= 3.00: Tp= 3.25]
03108>        [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
03109>        [InterEventTime= 12.00]
03110> R0005: C00029-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03111>      CONTINUOUS NASHYD       1.0 01:MO_DR          2737.00   17.859 No_date   31:33   22.47 .393     .000
03112>        [CN= 76.0: N= 3.00: Tp= 3.03]
03113>        [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
03114>        [InterEventTime= 12.00]
03115> #
03116> # Routing hydrographs
03117> #
03118> # Starting with the addition of Jock River Headwater and Subwatershed 13
03119> #
03120> R0005: C00030-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03121>      ADD HYD                 1.0 02:JR_HW          3680.00    9.398 No_date   37:02   16.41 n/a      .000
03122>                          +   1.0 02:SW_13          971.00    3.405 No_date   32:36   15.29 n/a      .000
03123>                      SUM=    1.0 01:S_NI3          4651.00   11.949 No_date   35:33   16.17 n/a      .000
03124> #
03125> # Sum of hydrographs from Node 13 routed to Node 13A
03126> # (Approximated cross-section - see cross-section 258)
03127> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
03128> #
03129> R0005: C00031-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03130>      ROUTE CHANNEL    ->     1.0 02:S_NI3          4651.00   11.949 No_date   35:33   16.17 n/a      .000
03131>        [RDT= 1.00] out <-     1.0 01:NI3A           4651.00    9.514 No_date   39:57   16.17 n/a      .000
03132>        [L/S/n= 9074./ .022/ .040]
03133>        {Vmx= .478: Dmx= 3.020}
03134> #
03135> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
03136> #
03137> R0005: C00032-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03138>      ADD HYD                 1.0 02:NI3A           4651.00    9.514 No_date   39:57   16.17 n/a      .000
03139>                          +   1.0 02:JR_GWM         3074.00    4.682 No_date   39:59   13.23 n/a      .000
03140>                      SUM=    1.0 01:SNI3A          7725.00   14.196 No_date   39:59   15.00 n/a      .000
03141> #
03142> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
03143> #
03144> R0005: C00033-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03145>      ROUTE RESERVOIR ->     1.0 02:SNI3A          7725.00   14.196 No_date   39:59   15.00 n/a      .000
03146>                         out <=  1.0 01:RES_GM        7725.00    3.149 No_date   57:25   15.00 n/a      .000
03147>        {MaxStoked= 6.321E+02  m3}
03148> #
03149> R0005: C00034-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03150>      SAVE HYD                1.0 01:RES_GM         7725.00    3.149 No_date   57:25   15.00 n/a      .000
03151>        fname: H_RESGM
03152>        remark: Outflow from Res GM
03153> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
03154> # (Approximated cross-section - see cross-section 258)
03155> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
03156> R0005: C00035-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03157>      ROUTE CHANNEL    ->     1.0 02:RES_GM         7725.00    3.149 No_date   57:25   15.00 n/a      .000
03158>        [RDT= 1.00] out <-     1.0 01:NI2            7725.00    3.137 No_date   60:12   15.00 n/a      .000
03159>        [L/S/n= 5926./ .076/ .040]
03160>        {Vmx= .527: Dmx= 1.429}
03161> #
03162> # Addition of Subwatershed Jock River at Ashton to Node 12
03163> #
03164> R0005: C00036-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03165>      ADD HYD                 1.0 02:NI2            7725.00    3.137 No_date   60:12   15.00 n/a      .000
03166>                          +   1.0 02:JR_ASH         1781.00    8.521 No_date   32:43   20.12 n/a      .000
03167>                      SUM=    1.0 01:S_NI2          9506.00   10.498 No_date   32:46   15.96 n/a      .000
03168> R0005: C00037-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03169>      SAVE HYD                1.0 01:S_NI2          9506.00   10.498 No_date   32:46   15.96 n/a      .000
03170>        fname: H_SNI2
03171>        remark: flow at S_NI2 near Ashton
03172> #
03173> # Sum of hydrographs from Node 12 routed to Node 11
03174> # (Approximated cross-section - see cross-section 258)
03175> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
03176> #
03177> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
03178> #
03179> R0005: C00038-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03180>      ROUTE CHANNEL    ->     1.0 02:S_NI2          9506.00   10.498 No_date   32:46   15.96 n/a      .000
03181>        [RDT= 1.00] out <-     1.0 01:Dum11          9506.00   10.383 No_date   33:07   15.96 n/a      .000
03182>        [L/S/n= 972./ .054/ .040]
03183>        {Vmx= .648: Dmx= 2.406}
03184> #
03185> # Addition of Subwatershed 11 and No Name Creek to Node 11
03186> #
03187> R0005: C00039-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03188>      ADD HYD                 1.0 02:Dum11          9506.00   10.383 No_date   33:07   15.96 n/a      .000
03189>                          +   1.0 02:SW_11          500.00    4.354 No_date   29:22   17.18 n/a      .000
03190>                          +   1.0 02:NN_CK          1917.00    6.210 No_date   34:31   17.18 n/a      .000
03191>                      SUM=    1.0 01:S_NI1          11923.00  17.560 No_date   33:09   16.21 n/a      .000
03192> #
03193> # Sum of hydrographs from Node 11 routed to Node 10
03194> # Section 1
03195> #
03196> R0005: C00040-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03197>      ROUTE CHANNEL    ->     1.0 02:S_NI1          11923.00  17.560 No_date   33:09   16.21 n/a      .000
03198>        [RDT= 1.00] out <-     1.0 01:NI0            11923.00  12.006 No_date   38:17   16.21 n/a      .000
03199>        [L/S/n=14028./ .157/ .040]
03200>        {Vmx= .461: Dmx= 1.087}
03201> #
03202> # Addition of Subwatershed 10 to Node 10
03203> #
03204> R0005: C00041-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03205>      ADD HYD                 1.0 02:NI0            11923.00  12.006 No_date   38:17   16.21 n/a      .000
03206>                          +   1.0 02:SW_10          5666.00   16.924 No_date   38:02   20.12 n/a      .000
03207>                      SUM=    1.0 01:S_NI0          17589.00  28.927 No_date   38:09   17.47 n/a      .000
03208> R0005: C00042-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03209>      SAVE HYD                1.0 01:S_NI0          17589.00  28.927 No_date   38:09   17.47 n/a      .000
03210>        fname: H_SNI0
03211>        remark: flow at S_NI0: NI0 + SW_10
03212> # Addition of Kings Creek to S_NI0
03213> #
03214> R0005: C00043-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03215>      ADD HYD                 1.0 02:S_NI0          17589.00  28.927 No_date   38:09   17.47 n/a      .000
03216>                          +   1.0 02:KG_CK          8376.00   16.342 No_date   39:59   17.18 n/a      .000
03217>                      SUM=    1.0 01:S_NI0A         25965.00  44.722 No_date   39:35   17.37 n/a      .000
03218> #
03219> # Sum of hydrographs from Node 10 routed to Node 9
03220> # Section 2
03221> #
03222> R0005: C00044-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03223>      ROUTE CHANNEL    ->     1.0 02:S_NI0A         25965.00  44.722 No_date   39:35   17.37 n/a      .000
03224>        [RDT= 1.00] out <-     1.0 01:N9             25965.00  43.534 No_date   39:59   17.37 n/a      .000
03225>        [L/S/n= 3982./ .075/ .040]
03226>        {Vmx= .664: Dmx= 1.502}
03227> #
03228> # Addition of Subwatershed 9 and Nichols Creek to Node 9
03229> #
03230> R0005: C00045-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03231>      ADD HYD                 1.0 02:N9             25965.00  43.534 No_date   39:59   17.37 n/a      .000
03232>                          +   1.0 02:SW_9           1132.00    6.963 No_date   30:55   19.24 n/a      .000
03233>                          +   1.0 02:NC_CK          4464.00    8.109 No_date   39:59   15.66 n/a      .000
03234>                      SUM=    1.0 01:S_N9           31561.00  53.366 No_date   39:59   17.20 n/a      .000
03235> #
03236> # Sum of hydrographs from Node 9 routed to Node 8
03237> # Section 3
03238> #
03239> R0005: C00046-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03240>      ROUTE CHANNEL    ->     1.0 02:S_N9           31561.00  53.366 No_date   39:59   17.20 n/a      .000
03241>        [RDT= 1.00] out <-     1.0 01:N8             31561.00  49.404 No_date   39:59   17.20 n/a      .000
03242>        [L/S/n= 2269./ .088/ .045]
03243>        {Vmx= .370: Dmx= 1.520}
03244> #
03245> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
03246> #
03247> R0005: C00047-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03248>      ADD HYD                 1.0 02:N8             31561.00  49.404 No_date   39:59   17.20 n/a      .000
03249>                          +   1.0 02:SW_8           131.00    1.298 No_date   28:57   16.03 n/a      .000
03250>                          +   1.0 02:HB_DR          3854.00    9.385 No_date   38:41   17.18 n/a      .000
03251>                      SUM=    1.0 01:S_N8           35546.00  58.845 No_date   39:59   17.19 n/a      .000
03252> #
03253> # Sum of hydrographs from Node 8 routed to Node 7
03254> # Section 4
03255> #
03256> R0005: C00048-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03257>      ROUTE CHANNEL    ->     1.0 02:S_N8           35546.00  58.845 No_date   39:59   17.19 n/a      .000
03258>        [RDT= 1.00] out <-     1.0 01:N7             35546.00  48.127 No_date   45:08   17.19 n/a      .000
03259>        [L/S/n= 3750./ .053/ .070]
03260>        {Vmx= .208: Dmx= 1.855}
03261> #
03262> # Addition of Subwatershed 7 to Node 7
03263> #
03264> R0005: C00049-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03265>      ADD HYD                 1.0 02:N7             35546.00  48.127 No_date   45:08   17.19 n/a      .000
03266>                          +   1.0 02:SW_7           3197.00    7.027 No_date   36:28   13.89 n/a      .000
03267>                      SUM=    1.0 01:S_N7           38743.00  51.395 No_date   44:14   16.92 n/a      .000
03268> R0005: C00050-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03269>      SAVE HYD                1.0 01:S_N7           38743.00  51.395 No_date   44:14   16.92 n/a      .000
03270>        fname: H_SN7
03271>        remark: flow at S_N7:  N7 + SW_7
03272> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
03273> # Storage area and volumes were estimated from available topo maps.
03274> # Release rate from fen was assumed to be controlled by the downstream
03275> # river cross-section for summer conditions.  It is was assumed that for up to
03276> # 0.75 m of water, the main channel of the river provided the storage.  Above
03277> # this depth, the wetland starts to signigicantly store water.
03278> #
03279> R0005: C00051-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03280>      ROUTE RESERVOIR ->     1.0 02:S_N7           38743.00  51.395 No_date   44:14   16.92 n/a      .000
03281>                         out <=  1.0 01:RES_RF        38743.00  27.976 No_date   59:12   16.92 n/a      .000
03282>        {MaxStoked= 1784E+03  m3}
03283> R0005: C00052-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03284>      SAVE HYD                1.0 01:RES_RF         38743.00  27.976 No_date   59:12   16.92 n/a      .000
03285>        fname: H_Res-RF
03286>        remark: outflow of Richmond Fen
03287> #
03288> # Sum of hydrographs from Node 7 routed to Node 6
03289> # Section 5
03290> #
03291> R0005: C00053-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03292>      ROUTE CHANNEL    ->     1.0 02:RES_RF         38743.00  27.976 No_date   59:12   16.92 n/a      .000
03293>        [RDT= 1.00] out <-     1.0 01:N6             38743.00  27.930 No_date   60:29   16.92 n/a      .000
03294>        [L/S/n= 3056./ .082/ .025]
03295>        {Vmx= .460: Dmx= .895}
03296> #
03297> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
03298> #
03299> R0005: C00054-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03300>      ADD HYD                 1.0 02:N6             38743.00  27.930 No_date   60:29   16.92 n/a      .000
03301>                          +   1.0 02:SW_6           165.00     .641 No_date   33:06   17.58 n/a      .000
03302>                          +   1.0 02:VG_DR          1332.00    4.803 No_date   35:19   20.12 n/a      .000
03303>                      SUM=    1.0 01:S_N6           40240.01  27.944 No_date   60:06   17.03 n/a      .000
03304> #
03305> # Sum of hydrographs from Node 6 routed to Node 5
03306> # Section 6
03307> #
03308> R0005: C00055-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03309>      ROUTE CHANNEL    ->     1.0 02:S_N6           40240.01  27.944 No_date   60:06   17.03 n/a      .000
03310>        [RDT= 1.00] out <-     1.0 01:N5             40240.01  27.922 No_date   60:57   17.03 n/a      .000
03311>        [L/S/n= 1852./ .054/ .035]
03312>        {Vmx= .397: Dmx= 1.002}
03313> #
03314> # Addition of Subwatershed 5 and Flowing Creek to Node 5
03315> #
03316> R0005: C00056-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03317>      ADD HYD                 1.0 02:N5             40240.01  27.922 No_date   60:57   17.03 n/a      .000
03318>                          +   1.0 02:SW_5           224.00    4.100 No_date   28:45   22.97 n/a      .000
03319>                          +   1.0 02:FL_CK          4945.00   22.837 No_date   33:22   21.04 n/a      .000
03320>                      SUM=    1.0 01:S_N5           45409.01  43.566 No_date   35:28   17.49 n/a      .000
03321> #
03322> # Sum of hydrographs from Node 5 routed to Node 5A
03323> # Section 7
03324> #
03325> R0005: C00057-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03326>      ROUTE CHANNEL    ->     1.0 02:S_N5           45409.01  43.566 No_date   35:28   17.49 n/a      .000
03327>        [RDT= 1.00] out <-     1.0 01:N5A            45409.01  43.490 No_date   35:47   17.49 n/a      .000
03328>        [L/S/n= 556./ .090/ .040]
03329>        {Vmx= .465: Dmx= 1.060}
03330> #
03331> # Addition of Subwatershed 5Al and Subwatershed 5A2 to Node 5A
03332> #
03333> R0005: C00058-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03334>      ADD HYD                 1.0 02:N5A            45409.01  43.490 No_date   35:47   17.49 n/a      .000
03335>                          +   1.0 02:SW_5A2          20.00     .483 No_date   28:36   25.62 n/a      .000
03336>                          +   1.0 02:SW_5A1         1412.00    4.646 No_date   37:58   21.98 n/a      .000
03337>                      SUM=    1.0 01:S_N5A          46841.01  47.976 No_date   35:58   17.63 n/a      .000
03338> #
03339> # Sum of hydrographs from Node 5A routed to Node 4
03340> # Section 8
03341> #
03342> R0005: C00059-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03343>      ROUTE CHANNEL    ->     1.0 02:S_N5A          46841.01  47.976 No_date   35:58   17.63 n/a      .000
03344>        [RDT= 1.00] out <-     1.0 01:N4             46841.01  46.217 No_date   37:26   17.63 n/a      .000
03345>        [L/S/n= 4630./ .043/ .035]
03346>        {Vmx= .756: Dmx= 3.116}
03347> #
03348> # Addition of Subwatershed 4 and Leamy Creek to Node 4
03349> #
03350> R0005: C00060-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03351>      ADD HYD                 1.0 02:N4             46841.01  46.217 No_date   37:26   17.63 n/a      .000
03352>                          +   1.0 02:SW_4           585.00    6.688 No_date   29:57   25.62 n/a      .000
03353>                          +   1.0 02:LM_CK          1021.00    8.861 No_date   30:48   25.07 n/a      .000
03354>                      SUM=    1.0 01:S_N4           48447.00  50.308 No_date   36:47   17.89 n/a      .000
03355> R0005: C00061-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03356>      SAVE HYD                1.0 01:S_N4           48447.00  50.308 No_date   36:47   17.89 n/a      .000
03357>        fname: S_N4_0005
03358>        remark: flow at S_N4
03359> #
03360> # Sum of hydrographs from Node 4 routed to Node 2
03361> # Section 9
03362> #
03363> R0005: C00062-----------DTmin-ID: NHYD--------AREAha-QPEAKcms-TpeakDat e_hh:mm----RVmm R. C.----DWFcms
03364>      ROUTE CHANNEL    ->     1.0 02:S_N4           48447.00  50.308 No_date   36:47   17.89 n/a      .000
03365>        [RDT= 1.00] out <-     1.0 01:N2             48447.00  50.131 No_date   37:08   17.89 n/a      .000
03366>        [L/S/n= 1667./ .060/ .040]
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03267>       [Vmx=   .781: Dmx=  3.131]
03268> #
03269> # Addition of Subwatershed 1 with Monohan Drain and Smith Drain to Node 2
03270> #
03271> R0005: C00063-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03272>       ADD HYD                1.0 02: N2          48447.00    50.131 No_date    37:08    17.89  n/a     .000
03273>                          +   1.0 02: SW_2            177.00     3.240 No_date    28:45    22.97  n/a     .000
03274>                          +   1.0 02: SM_DR           1122.00     8.165 No_date    31:48    25.62  n/a     .000
03275>                          +   1.0 02: MO_DR           2737.00    17.859 No_date    31:33    22.47  n/a     .000
03276>                      SUM=    1.0 01: S_N2          52483.00    67.222 No_date    33:17    18.31  n/a     .000
03277> R0005: C00064-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03278>       SAVE HYD               1.0 01: S_N2          52483.00    67.222 No_date    33:17    18.31  n/a     .000
03279>           fname : H_SN2
03280>           remark: flow at S_N2 Jock River Gauge at Moodie Dr.
03281> #
03282> # Sum of hydrographs from Node 2 routed to Node 1
03283> # Section 10
03284> #
03285> #*************************************************************************
03286> #
03287> # Hydrograph from Node 2 routed to Node 416
03288> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
03289> #
03290> R0005: C00065-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03291>       ROUTE CHANNEL     ->     1.0 02: S_N2          52483.00    67.222 No_date    33:17    18.31  n/a     .000
03292>        [RDT= 1.00] out <-       1.0 01: N_416        52483.00    65.664 No_date    34:34    18.31  n/a     .000
03293>        [L/S/n= 2327./  .050/  .055]
03294>        [Vmx=   .658: Dmx=  2.660]
03295> #*************************************************************************
03296> #    Catchment SW1a
03297> #  - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
03298> #  - Undeveloped agricultural land
03299> #*************************************************************************
03300> R0005: C00066-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03301>       CONTINUOUS NASHYD      1.0 01: SW_1a         536.42     3.012 No_date    31:18    19.00  .333     .000
03302>        [CN= 72.0: N= 3.00: Tp= 2.79]
03303>        [IaREC= 4.00: SM N= 39.75: SMX=264.99:  SK= .010]
03304>        [InterEvent Time=  12.00]
03305> R0005: C00067-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03306>       CONTINUOUS STANDHYD    1.0 01: S-1-Okeefe     44.93     4.591 No_date    28:03    42.00  .735     .000
03307>        [XI M=  65: TI MP=  65]
03308>        [LOSS= 2: CN= 75.0]
03309>        [Pervious       area: IAper=  4.67: SLPP=2.00: LGP=  40. : MNP=.250: SCP=    .0]
03310>        [Impervious     area: IAimp=  1.57: SLPI =  .75: LGI = 547. : MNI=.013: SCI=    .0]
03311>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03312>        [SM N= 33.81: SMX=225.43:  SK= .010]
03313> R0005: C00068-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03314>       COMPUTE DUALHYD        1.0 01: S-1-Okeefe     44.93     4.591 No_date    28:03    42.00  n/a     .000
03315>           Major System    /     1.0 02: S-1-OkM          .00      .000 No_date    0:00      .00  n/a     .000
03316>           Minor System    /     1.0 03: S-1-OkMN       44.93     4.591 No_date    28:03    42.00  n/a     .000
03317>           [MJSysSto=  .0000E+00, Tot Orf Vol=  .0000E+00,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03318> R0005: C00069-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03319>       ADD HYD                1.0 02: S-1-OkM           .00      .000 No_date    0:00      .00  n/a     .000
03320>                          +   1.0 02: S-1-OkMN       44.93     4.591 No_date    28:03    42.00  n/a     .000
03321>                      SUM=    1.0 01: S-1-OkS        44.93     4.591 No_date    28:03    42.00  n/a     .000
03322> R0005: C00070-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03323>       ROUTE RESERVOIR   ->     1.0 02: S-1-OkS        44.93     4.591 No_date    28:03    42.00  n/a     .000
03324>                          out <=  1.0 01: S-1-OkSR       44.93      .340 No_date    29:30    42.00  n/a     .000
03325>                          overflow <=  1.0 03: S-1-OkSovf     .00      .000 No_date    0:00      .00  n/a     .000
03326>           [MJStoSked=  .1133E+01  m3,  Tot Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03327> R0005: C00071-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03328>       ADD HYD                1.0 02: N_416         52483.00    65.664 No_date    34:34    18.31  n/a     .000
03329>                          +   1.0 02: SW_1a           536.42     3.012 No_date    31:18    19.00  n/a     .000
03330>                          +   1.0 02: S-1-OkSR         44.93      .340 No_date    29:30    42.00  n/a     .000
03331>                          +   1.0 02: S-1-OkSovf         .00      .000 No_date    0:00      .00  n/a     .000
03332>                      SUM=    1.0 01: SN_416        53064.36    68.103 No_date    34:06    18.33  n/a     .000
03333> R0005: C00072-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03334>       SAVE HYD               1.0 01: SN_416        53064.36    68.103 No_date    34:06    18.33  n/a     .000
03335>           fname : SN_416.0005
03336>           remark: Total Flows at Highway 416 before Station 7245
03337> #
03338> # Hydrograph from Node 416 routed to Node at Okeefe drain
03339> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
03340> #
03341> R0005: C00073-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03342>       ROUTE CHANNEL     ->     1.0 02: SN_416        53064.36    68.103 No_date    34:06    18.33  n/a     .000
03343>        [RDT= 1.00] out <-       1.0 01: N_OK         53064.36    68.074 No_date    34:06    18.33  n/a     .000
03344>        [L/S/n=  497./  .302/  .055]
03345>        [Vmx=  1.357: Dmx=  2.255]
03346> #*************************************************************************
03347> #    Catchment OKEEFE
03348> #  - To Okeefe drain (north of the Jock)
03349> #  - Developed with assumed 43% imp.
03350> #  - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
03351> #  - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
03352> #*************************************************************************
03353> R0005: C00074-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03354>       CONTINUOUS NASHYD      1.0 01: O 1            63.72      .514 No_date    28:59    13.88  .243     .000
03355>        [CN= 61.0: N= 3.00: Tp=  .90]
03356>        [IaREC= 4.00: SM N= 64.50: SMX=430.01:  SK= .010]
03357>        [InterEvent Time=  12.00]
03358> R0005: C00075-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03359>       ROUTE CHANNEL     ->     1.0 02: O 1            63.72      .514 No_date    28:59    13.88  n/a     .000
03360>        [RDT= 1.00] out <-       1.0 01: O 1R           63.72      .470 No_date    29:19    13.88  n/a     .000
03361>        [L/S/n=  960./  .630/  .043]
03362>        [Vmx=   .682: Dmx=   .283]
03363> R0005: C00076-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03364>       CONTINUOUS NASHYD      1.0 01: O 2            28.61      .183 No_date    29:14    12.96  .227     .000
03365>        [CN= 57.0: N= 3.00: Tp= 1.10]
03366>        [IaREC= 4.00: SM N= 76.32: SMX=508.81:  SK= .010]
03367>        [InterEvent Time=  12.00]
03368> R0005: C00077-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03369>       CONTINUOUS NASHYD      1.0 01: O 4            46.94      .222 No_date    29:01     9.87  .173     .000
03370>        [CN= 49.0: N= 3.00: Tp=  .90]
03371>        [IaREC= 4.00: SM N=104.59: SMX=697.25:  SK= .010]
03372>        [InterEvent Time=  12.00]
03373> R0005: C00078-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03374>       ADD HYD                1.0 02: O 1R           63.72      .470 No_date    29:19    13.88  n/a     .000
03375>                          +   1.0 02: O 2            28.61      .183 No_date    29:14    12.96  n/a     .000
03376>                          +   1.0 02: O 4            46.94      .222 No_date    29:01     9.87  n/a     .000
03377>                      SUM=    1.0 01: OKF-N         139.27      .867 No_date    29:14    12.34  n/a     .000
03378> R0005: C00079-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03379>       ROUTE CHANNEL     ->     1.0 02: OKF-N         139.27      .867 No_date    29:14    12.34  n/a     .000
03380>        [RDT= 1.00] out <-       1.0 01: OKF-NR        139.27      .866 No_date    29:17    12.34  n/a     .000
03381>        [L/S/n=  210./  .810/  .043]
03382>        [Vmx=   .853: Dmx=   .550]
03383> R0005: C00080-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03384>       CONTINUOUS NASHYD      1.0 01: O 6            16.46      .074 No_date    28:46     8.71  .152     .000
03385>        [CN= 43.0: N= 3.00: Tp=  .70]
03386>        [IaREC= 4.00: SM N=134.47: SMX=896.47:  SK= .010]
03387>        [InterEvent Time=  12.00]
03388> R0005: C00081-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03389>       CONTINUOUS STANDHYD     1.0 01: O 3            39.67      .605 No_date    28:25    15.80  .277     .000
03390>        [XI M=  15: TI MP=  30]
03391>        [LOSS= 2: CN= 50.0]
03392>        [Pervious       area: IAper=  4.67: SLPP=  .32: LGP= 440. : MNP=.035: SCP=    .0]
03393>        [Impervious     area: IAimp=  1.57: SLPI =  .32: LGI =1880. : MNI=.013: SCI=    .0]
03394>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03395>        [SM N= 99.77: SMX=665.12:  SK= .010]
03396> R0005: C00082-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03397>       CONTINUOUS STANDHYD     1.0 01: O 5            60.63     1.453 No_date    28:11    17.75  .311     .000
03398>        [XI M=  13: TI MP=  26]
03399>        [LOSS= 2: CN= 61.0]
03400>        [Pervious       area: IAper=  4.67: SLPP=1.38: LGP= 550. : MNP=.035: SCP=    .0]
03401>        [Impervious     area: IAimp=  1.57: SLPI =1.38: LGI =1450. : MNI=.013: SCI=    .0]
03402>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03403>        [SM N= 64.50:  SMX=430.01:  SK= .010]
03404> R0005: C00083-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03405>       ADD HYD                1.0 02: OKF-NR        139.27      .866 No_date    29:17    12.34  n/a     .000
03406>                          +   1.0 02: O 3            39.67      .605 No_date    28:25    15.80  n/a     .000
03407>                          +   1.0 02: O 5            60.63     1.453 No_date    28:11    17.75  n/a     .000
03408>                          +   1.0 02: O 6            16.46      .074 No_date    28:46     8.71  n/a     .000
03409>                      SUM=    1.0 01: PT1           256.03     2.312 No_date    28:24    13.92  n/a     .000
03410> R0005: C00084-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03411>       CONTINUOUS NASHYD      1.0 01: O 7            5.28      .041 No_date    28:37    11.36  .199     .000
03412>        [CN= 54.0: N= 3.00: Tp=  .60]
03413>        [IaREC= 4.00: SM N= 87.01: SMX=580.07:  SK= .010]
03414>        [InterEvent Time=  12.00]
03415> R0005: C00085-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03416>       ADD HYD                1.0 02: PT1           256.03     2.312 No_date    28:24    13.92  n/a     .000
03417>                          +   1.0 02: O 7             5.28      .041 No_date    28:37    11.36  n/a     .000
03418>                      SUM=    1.0 01: FF            261.31     2.351 No_date    28:25    13.87  n/a     .000
03419> R0005: C00086-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03420>       ROUTE CHANNEL     ->     1.0 02: FF            261.31     2.351 No_date    28:25    13.87  n/a     .000
03421>        [RDT= 1.00] out <-       1.0 01: DRAIN1        261.31     2.298 No_date    28:31    13.87  n/a     .000
03422>        [L/S/n=  302./1.000/  .043]
03423>        [Vmx=   .817: Dmx=   .624]
03424> R0005: C00087-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03425>       CONTINUOUS NASHYD      1.0 01: D1             1.17      .044 No_date    28:12    23.49  .411     .000
03426>        [CN= 84.0: N= 3.00: Tp=  .28]
03427>        [IaREC= 4.00: SM N= 21.09: SMX=140.62:  SK= .010]
03428>        [InterEvent Time=  12.00]
03429> R0005: C00088-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03430>       CONTINUOUS STANDHYD     1.0 01: A1             2.50      .337 No_date    28:01    44.03  .771     .000
03431>        [XI M=  6: TI MP=  85]
03432>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03433>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03434>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  224. : MNI=.013: SCI=    .0]
03435>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03436> R0005: C00089-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03437>       ROUTE RESERVOIR   ->     1.0 02: A1             2.50      .337 No_date    28:01    44.03  n/a     .000
03438>                          out <=  1.0 01: A1-STR         2.50      .076 No_date    28:28    44.03  n/a     .000
03439>                          overflow <=  1.0 03: A1-OVF       .00      .000 No_date    0:00      .00  n/a     .000
03440>           [MJStoSked=  .5227E-01  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03441> R0005: C00090-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03442>       CONTINUOUS STANDHYD     1.0 01: ST-2           .59      .062 No_date    28:00    33.25  .582     .000
03443>        [XI M=  46: TI MP=  57]
03444>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03445>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03446>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  109. : MNI=.013: SCI=    .0]
03447>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03448> R0005: C00091-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03449>       ROUTE RESERVOIR   ->     1.0 02: ST-2           .59      .062 No_date    28:00    33.25  n/a     .000
03450>                          out <=  1.0 01: ST2STR         .59      .052 No_date    28:03    33.25  n/a     .000
03451>                          overflow <=  1.0 03: ST2OVF       .00      .000 No_date    0:00      .00  n/a     .000
03452>           [MJStoSked=  .1200E-02  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03453> R0005: C00092-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03454>       CONTINUOUS NASHYD      1.0 01: O 8            60.55      .658 No_date    29:05    18.08  .317     .000
03455>        [CN= 69.0: N= 3.00: Tp= 1.00]
03456>        [IaREC= 4.00: SM N= 44.82: SMX=298.82:  SK= .010]
03457>        [InterEvent Time=  12.00]
03458> R0005: C00093-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03459>       ROUTE PIPE        ->     1.0 02: O 8            60.55      .658 No_date    29:05    18.08  n/a     .000
03460>        [RDT= 1.00] out <-       1.0 01: OKPIPE         60.55      .654 No_date    29:09    18.08  n/a     .000
03461>        [L/S/n=  335./  .100/  .013]
03462>        [Vmx=   .991: Dmx=   .368]
03463>        [HGTH= 1.20: WDTH= 1.80]
03464> R0005: C00094-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03465>       ADD HYD                1.0 02: DRAIN1        261.31     2.298 No_date    28:31    13.87  n/a     .000
03466>                          +   1.0 02: D1             1.17      .044 No_date    28:12    23.49  n/a     .000
03467>                          +   1.0 02: A1-STR           2.50      .076 No_date    28:28    44.03  n/a     .000
03468>                          +   1.0 02: A1-OVF            .00      .000 No_date    0:00      .00  n/a     .000
03469>                          +   1.0 02: ST2STR            .59      .052 No_date    28:03    33.25  n/a     .000
03470>                          +   1.0 02: ST2OVF            .00      .000 No_date    0:00      .00  n/a     .000
03471>                      SUM=    1.0 01: OKPIPE         60.55      .654 No_date    29:09    18.08  n/a     .000
03472> R0005: C00095-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03473>       CONTINUOUS STANDHYD     1.0 01: ST-3           3.51      .460 No_date    28:02    44.03  .771     .000
03474>        [XI M=  6: TI MP=  85]
03475>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03476>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  40. : MNP=.250: SCP=    .0]
03477>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  261. : MNI=.013: SCI=    .0]
03478>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03479> R0005: C00096-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03480>       ROUTE RESERVOIR   ->     1.0 02: A7             3.51      .460 No_date    28:02    44.03  n/a     .000
03481>                          out <=  1.0 01: A7-STR         3.51      .108 No_date    28:29    44.03  n/a     .000
03482>                          overflow <=  1.0 03: A7-OVF       .00      .000 No_date    0:00      .00  n/a     .000
03483>           [MJStoSked=  .7349E-01  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03484> R0005: C00097-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03485>       CONTINUOUS STANDHYD     1.0 01: ST-3           .71      .073 No_date    28:00    33.25  .582     .000
03486>        [XI M=  46: TI MP=  57]
03487>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03488>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03489>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  119. : MNI=.013: SCI=    .0]
03490>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03491> R0005: C00098-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03492>       ROUTE RESERVOIR   ->     1.0 02: ST-3           .71      .073 No_date    28:00    33.25  n/a     .000
03493>                          out <=  1.0 01: ST3STR         .71      .063 No_date    28:03    33.25  n/a     .000
03494>                          overflow <=  1.0 03: ST3OVF       .00      .000 No_date    0:00      .00  n/a     .000
03495>           [MJStoSked=  .1203E-02  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03496> R0005: C00099-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03497>       ADD HYD                1.0 02: ST2-IN         326.12     2.907 No_date    28:39    14.95  n/a     .000
03498>                          +   1.0 02: A7-STR           3.51      .108 No_date    28:29    44.03  n/a     .000
03499>                          +   1.0 02: A7-OVF            .00      .000 No_date    0:00      .00  n/a     .000
03500>                          +   1.0 02: ST3STR            .71      .063 No_date    28:03    33.25  n/a     .000
03501>                          +   1.0 02: ST3OVF            .00      .000 No_date    0:00      .00  n/a     .000
03502>                      SUM=    1.0 01: ST2ST3         330.34     3.026 No_date    28:38    15.30  n/a     .000
03503> R0005: C00100-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03504>       ROUTE CHANNEL     ->     1.0 02: ST2ST3         330.34     3.026 No_date    28:38    15.30  n/a     .000
03505>        [RDT= 1.00] out <-       1.0 01: DRAIN2        330.34     2.842 No_date    29:04    15.30  n/a     .000
03506>        [L/S/n=  592./  .230/  .043]
03507>        [Vmx=   .607: Dmx=   .930]
03508> R0005: C00101-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03509>       CONTINUOUS NASHYD      1.0 01: D2             2.28      .035 No_date    29:05    23.49  .411     .000
03510>        [CN= 84.0: N= 3.00: Tp=  .99]
03511>        [IaREC= 4.00: SM N= 21.09: SMX=140.62:  SK= .010]
03512>        [InterEvent Time=  12.00]
03513> R0005: C00102-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03514>       CONTINUOUS STANDHYD     1.0 01: A17           12.04     1.379 No_date    28:04    44.03  .771     .000
03515>        [XI M=  6: TI MP=  85]
03516>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03517>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03518>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  491. : MNI=.013: SCI=    .0]
03519>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03520> R0005: C00103-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03521>       ROUTE RESERVOIR   ->     1.0 02: A17           12.04     1.379 No_date    28:04    44.03  n/a     .000
03522>                          out <=  1.0 01: A17STR        12.04      .353 No_date    28:36    44.03  n/a     .000
03523>                          overflow <=  1.0 03: A17OVF       .00      .000 No_date    0:00      .00  n/a     .000
03524>           [MJStoSked=  .2492E+00  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03525> R0005: C00104-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03526>       CONTINUOUS STANDHYD     1.0 01: ST-4           .35      .038 No_date    28:00    33.25  .582     .000
03527>        [XI M=  46: TI MP=  57]
03528>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03529>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03530>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  84. : MNI=.013: SCI=    .0]
03531>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03532> R0005: C00105-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03533>       ROUTE RESERVOIR   ->     1.0 02: ST-4           .35      .038 No_date    28:00    33.25  n/a     .000
03534>                          out <=  1.0 01: ST4STR         .35      .031 No_date    28:03    33.25  n/a     .000
03535>                          overflow <=  1.0 03: ST4OVF       .00      .000 No_date    0:00      .00  n/a     .000
03536>           [MJStoSked=  .1040E-02  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03537> R0005: C00106-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03538>       CONTINUOUS STANDHYD     1.0 01: A18            5.30      .671 No_date    28:02    44.03  .771     .000
03539>        [XI M=  6: TI MP=  85]
03540>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03541>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03542>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  326. : MNI=.013: SCI=    .0]
03543>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03544> R0005: C00107-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03545>       ROUTE RESERVOIR   ->     1.0 02: A18            5.30      .671 No_date    28:02    44.03  n/a     .000
03546>                          out <=  1.0 01: A18STR         5.30      .160 No_date    28:31    44.03  n/a     .000
03547>                          overflow <=  1.0 03: A18OVF       .00      .000 No_date    0:00      .00  n/a     .000
03548>           [MJStoSked=  .1108E+00  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03549> R0005: C00108-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03550>       ADD HYD                1.0 02: DRAIN2        330.34     2.842 No_date    29:04    15.30  n/a     .000
03551>                          +   1.0 02: D2             2.28      .035 No_date    29:05    23.49  n/a     .000
03552>                          +   1.0 02: A17STR          12.04      .353 No_date    28:36    44.03  n/a     .000
03553>                          +   1.0 02: A17OVF            .00      .000 No_date    0:00      .00  n/a     .000
03554>                          +   1.0 02: ST4STR            .35      .031 No_date    28:03    33.25  n/a     .000
03555>                          +   1.0 02: ST4OVF            .00      .000 No_date    0:00      .00  n/a     .000
03556>                          +   1.0 02: A18STR           5.30      .160 No_date    28:31    44.03  n/a     .000
03557>                          +   1.0 02: A18OVF            .00      .000 No_date    0:00      .00  n/a     .000
03558>                      SUM=    1.0 01: PT3ST4         350.31     3.317 No_date    28:57    16.79  n/a     .000
03559> R0005: C00109-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03560>       ROUTE CHANNEL     ->     1.0 02: PT3ST4         350.31     3.317 No_date    28:57    16.79  n/a     .000
03561>        [RDT= 1.00] out <-       1.0 01: DRAIN3        350.31     3.191 No_date    29:19    16.79  n/a     .000
03562>        [L/S/n=  525./  .230/  .043]
03563>        [Vmx=   .635: Dmx=   .979]
03564> R0005: C00110-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03565>       CONTINUOUS NASHYD      1.0 01: C1             2.51      .055 No_date    28:45    25.92  .454     .000
03566>        [CN= 86.0: N= 3.00: Tp=  .73]
03567>        [IaREC= 4.00: SM N= 17.43: SMX=116.21:  SK= .010]
03568>        [InterEvent Time=  12.00]
03569> R0005: C00111-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03570>       CONTINUOUS STANDHYD     1.0 01: C1             3.41      .450 No_date    28:01    44.03  .771     .000
03571>        [XI M=  6: TI MP=  85]
03572>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03573>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03574>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  261. : MNI=.013: SCI=    .0]
03575>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03576> R0005: C00112-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03577>       ROUTE RESERVOIR   ->     1.0 02: C1             3.41      .450 No_date    28:01    44.03  n/a     .000
03578>                          out <=  1.0 01: C1-STR         3.41      .104 No_date    28:29    44.03  n/a     .000
03579>                          overflow <=  1.0 03: C1-OVF       .00      .000 No_date    0:00      .00  n/a     .000
03580>           [MJStoSked=  .7123E-01  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03581> R0005: C00113-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03582>       CONTINUOUS STANDHYD     1.0 01: ST-5            .45      .048 No_date    28:00    33.25  .582     .000
03583>        [XI M=  46: TI MP=  57]
03584>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03585>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  50. : MNP=.250: SCP=    .0]
03586>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =  95. : MNI=.013: SCI=    .0]
03587>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03588> R0005: C00114-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03589>       ROUTE RESERVOIR   ->     1.0 02: ST-5            .45      .048 No_date    28:00    33.25  n/a     .000
03590>                          out <=  1.0 01: ST5STR         .45      .040 No_date    28:03    33.25  n/a     .000
03591>                          overflow <=  1.0 03: ST5OVF       .00      .000 No_date    0:00      .00  n/a     .000
03592>           [MJStoSked=  .1108E-02  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03593> R0005: C00115-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03594>       ADD HYD                1.0 02: DRAIN3        350.31     3.191 No_date    29:19    16.79  n/a     .000
03595>                          +   1.0 02: D1             2.51      .055 No_date    28:45    25.92  n/a     .000
03596>                          +   1.0 02: C1-STR           3.41      .104 No_date    28:29    44.03  n/a     .000
03597>                          +   1.0 02: C1-OVF            .00      .000 No_date    0:00      .00  n/a     .000
03598>                          +   1.0 02: ST5STR            .45      .040 No_date    28:03    33.25  n/a     .000
03599>                          +   1.0 02: ST5OVF            .00      .000 No_date    0:00      .00  n/a     .000
03600>                      SUM=    1.0 01: ST5-E          356.68     3.312 No_date    29:13    17.14  n/a     .000
03601> R0005: C00116-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03602>       CONTINUOUS STANDHYD     1.0 01: STRAND         7.59      .640 No_date    28:12    42.86  .750     .000
03603>        [XI M=  6: TI MP=  85]
03604>        [Horton parameters: Fo= 76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
03605>        [Pervious       area: IAper=  4.67: SLPP=  .50: LGP=  40. : MNP=.250: SCP=    .0]
03606>        [Impervious     area: IAimp=  1.57: SLPI =  .50: LGI =1230. : MNI=.013: SCI=    .0]
03607>        [IaREC(mp=   4.00: IaREC(per=   4.00]
03608> R0005: C00117-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03609>       ROUTE RESERVOIR   ->     1.0 02: STRAND         7.59      .640 No_date    28:12    42.86  n/a     .000
03610>                          out <=  1.0 01: S-POND         7.59      .048 No_date    29:55    42.86  n/a     .000
03611>                          overflow <=  1.0 03: S-OVF        .00      .000 No_date    0:00      .00  n/a     .000
03612>           [MJStoSked=  .2288E+00  m3,  Tot Orf Vol=  .0000E+00  m3,  N-Orf=    0,  Tot Dur Orf=    0. hrs]
03613> R0005: C00118-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
03614>       ADD HYD                1.0 02: ST5-E          356.68     3.312 No_date    29:13    17.14  n/a     .000
03615>                          
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03741>          fname : SWMF- A 0005
03742>          remark: SWMF- A Outflow
03743> R0005: C00124-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03744>      ADD HYD                    1. 0 02: SSAOUT          364. 27     3. 358 No_date   29: 13   17. 68  n/ a      .000
03745>                             +   1. 0 02: SWMF- A          66. 75      .298 No_date   30: 20   42. 06  n/ a      .000
03746>                             +   1. 0 02: SWMOV             .00        .000 No_date    0: 00     .00  n/ a      .000
03747>                         SUM=    1. 0 01: PT4STS          431. 02     3. 613 No_date   29: 19   21. 45  n/ a      .000
03748> R0005: C00125-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03749>      CONTI NUOUS STANDHYD       1. 0 01: C6              1. 87       .260 No_date   28: 01   44. 03  .771      .000
03750>          [ XI M=. 68: TI MP=. 85]
03751>          [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03752>          [ Pervious      area: I A/ p=  4. 67: SLPP=  -. 50: LG/ P=   50.: MNP=. 250: SCP=    .0]
03753>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  -. 50: LG/ I =  193.: MNI =. 013: SCI =    .0]
03754>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03755> R0005: C00126-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03756>      ROUTE RESERVOI R - >       1. 0 02: C6              1. 87       .260 No_date   28: 01   44. 03  n/ a      .000
03757>                           out <=    1. 0 01: C6- STR       1. 87       .058 No_date   28: 26   44. 03  n/ a      .000
03758>                       overflow <=    1. 0 03: C6- OVF        .00        .000 No_date    0: 00     .00  n/ a      .000
03759>          [ MaSt ol ked=. 39241E- 01   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03760> R0005: C00127-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03761>      CONTI NUOUS STANDHYD       1. 0 01: C7              1. 62       .227 No_date   28: 01   44. 03  .771      .000
03762>          [ XI M=. 68: TI MP=. 85]
03763>          [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03764>          [ Pervious      area: I A/ p=  4. 67: SLPP=  -. 50: LG/ P=   50.: MNP=. 250: SCP=    .0]
03765>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  -. 50: LG/ I =  180.: MNI =. 013: SCI =    .0]
03766>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03767> R0005: C00128-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03768>      ROUTE RESERVOI R - >       1. 0 02: C7              1. 62       .227 No_date   28: 01   44. 03  n/ a      .000
03769>                           out <=    1. 0 01: C7- STR       1. 62       .050 No_date   28: 26   44. 03  n/ a      .000
03770>                       overflow <=    1. 0 03: C7- OVF        .00        .000 No_date    0: 00     .00  n/ a      .000
03771>          [ MaSt ol ked=. 3391E- 01   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03772> R0005: C00129-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03773>      CONTI NUOUS STANDHYD       1. 0 01: ST- 6           .41        .044 No_date   28: 00   33. 25  .582      .000
03774>          [ XI M=. 46: TI MP=. 57]
03775>          [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03776>          [ Pervious      area: I A/ p=  4. 67: SLPP=  -. 50: LG/ P=   50.: MNP=. 250: SCP=    .0]
03777>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  -. 50: LG/ I =   91.: MNI =. 013: SCI =    .0]
03778>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03779> R0005: C00130-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03780>      ROUTE RESERVOI R - >       1. 0 02: ST- 6           .41        .044 No_date   28: 00   33. 25  n/ a      .000
03781>                           out <=    1. 0 01: ST6STR        .41        .036 No_date   28: 03   33. 25  n/ a      .000
03782>                       overflow <=    1. 0 03: ST6OVF         .00        .000 No_date    0: 00     .00  n/ a      .000
03783>          [ MaSt ol ked=. 1092E- 02   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03784> R0005: C00131-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03785>      ADD HYD                    1. 0 02: PT4STS          431. 02     3. 613 No_date   29: 19   21. 45  n/ a      .000
03786>                             +   1. 0 02: C6- STR           1. 87       .058 No_date   28: 26   44. 03  n/ a      .000
03787>                             +   1. 0 02: C6- OVF            .00        .000 No_date    0: 00     .00  n/ a      .000
03788>                             +   1. 0 02: C7- STR           1. 62       .050 No_date   28: 26   44. 03  n/ a      .000
03789>                             +   1. 0 02: C7- OVF            .00        .000 No_date    0: 00     .00  n/ a      .000
03790>                             +   1. 0 02: ST6STR           .41        .036 No_date   28: 03   33. 25  n/ a      .000
03791>                             +   1. 0 02: ST6OVF            .00        .000 No_date    0: 00     .00  n/ a      .000
03792>                         SUM=    1. 0 01: PT5STS          434. 92     3. 684 No_date   29: 13   21. 64  n/ a      .000
03793> R0005: C00132-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03794>      ROUTE CHANNEL              - >    1. 0 02: PT5STS          434. 92     3. 684 No_date   29: 13   21. 64  n/ a      .000
03795>          [ RDT=  1. 00] out <-          1. 0 01: DRAI N4         434. 92     3. 572 No_date   29: 35   21. 64  n/ a      .000
03796>          [ L/ S/ n=   324. /  . 160/ . 043]
03797>          [ Vmax=   . 480: Dmax=  1. 218]
03798> R0005: C00133-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03799>      CONTI NUOUS NASHYD         1. 0 01: D4              1. 73       .049 No_date   28: 35   27. 98  .490      .000
03800>          [ CN=  88. 0: N=  3. 00: Tp=   . 60]
03801>          [ I aREC=  4. 00: SMN=  14. 94: SMX=  99. 61: SK=  .010]
03802>          [ I nterEvent Time=   12. 00]
03803> R0005: C00134-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03804>      CONTI NUOUS STANDHYD       1. 0 01: Area- B         24. 04      2. 784 No_date   28: 04   40. 98  .717      .000
03805>          [ XI M=. 62: TI MP=. 77]
03806>          [ Hor ton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
03807>          [ Pervious      area: I A/ p=  4. 67: SLPP=1. 40: LG/ P=   50.: MNP=. 250: SCP=    .0]
03808>          [ I mpervious   area: I A/ m=  1. 57: SLPI =1. 40: LG/ I =  693.: MNI =. 013: SCI =    .0]
03809>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03810> R0005: C00135-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03811>      ROUTE RESERVOI R - >       1. 0 02: Area- B         24. 04      2. 784 No_date   28: 04   40. 98  n/ a      .000
03812>                           out <=    1. 0 01: SWMF- B         24. 04       .278 No_date   28: 55   40. 98  n/ a      .000
03813>                       overflow <=    1. 0 03: SWMOVF         .00        .000 No_date    0: 00     .00  n/ a      .000
03814>          [ MaSt ol ked=. 6277E+00   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03815> R0005: C00136-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03816>      ADD HYD                    1. 0 02: DRAI N4         434. 92     3. 572 No_date   29: 35   21. 64  n/ a      .000
03817>                             +   1. 0 02: D4               1. 73       .049 No_date   28: 35   27. 98  n/ a      .000
03818>                             +   1. 0 02: SWMF- B          24. 04       .278 No_date   28: 55   40. 98  n/ a      .000
03819>                             +   1. 0 02: SWMBOVF            .00        .000 No_date    0: 00     .00  n/ a      .000
03820>                         SUM=    1. 0 01: DI- EX          460. 69     3. 861 No_date   29: 25   22. 68  n/ a      .000
03821> R0005: C00137-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03822>      ROUTE CHANNEL              - >    1. 0 02: DI- EX          460. 69     3. 861 No_date   29: 25   22. 68  n/ a      .000
03823>          [ RDT=  1. 00] out <-          1. 0 01: DRAI N5         460. 69     3. 810 No_date   29: 44   22. 68  n/ a      .000
03824>          [ L/ S/ n=   413. /  . 160/ . 033]
03825>          [ Vmax=   . 561: Dmax=   . 821]
03826> R0005: C00138-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03827>      CONTI NUOUS NASHYD         1. 0 01: D5              1. 90       .044 No_date   28: 42   25. 92  .454      .000
03828>          [ CN=  86. 0: N=  3. 00: Tp=   . 69]
03829>          [ I aREC=  4. 00: SMN=  17. 43: SMX=116. 21: SK=  .010]
03830>          [ I nterEvent Time=   12. 00]
03831> R0005: C00139-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03832>      CONTI NUOUS NASHYD         1. 0 01: O 13SDF         9. 74       .290 No_date   28: 22   24. 64  .431      .000
03833>          [ CN=  81. 0: N=  3. 00: Tp=   . 43]
03834>          [ I aREC=  4. 00: SMN=  25. 21: SMX=168. 09: SK=  .010]
03835>          [ I nterEvent Time=   12. 00]
03836> R0005: C00140-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03837>      ROUTE RESERVOI R - >       1. 0 02: O 13SDF         9. 74       .290 No_date   28: 22   24. 64  n/ a      .000
03838>                           out <=    1. 0 01: SDF             9. 74       .032 No_date   32: 11   24. 64  n/ a      .000
03839>                       overflow <=    1. 0 03: OVFSDF         .00        .000 No_date    0: 00     .00  n/ a      .000
03840>          [ MaSt ol ked=. 1268E+00   m3,  Tot Ovf Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03841> R0005: C00141-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03842>      ADD HYD                    1. 0 02: DRAI N5         460. 69     3. 810 No_date   29: 44   22. 68  n/ a      .000
03843>                             +   1. 0 02: D5               1. 90       .044 No_date   28: 42   25. 92  n/ a      .000
03844>                             +   1. 0 02: SDF              9. 74       .032 No_date   32: 11   24. 64  n/ a      .000
03845>                         SUM=    1. 0 01: PT6MC           472. 33     3. 863 No_date   29: 44   22. 73  n/ a      .000
03846> R0005: C00142-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03847>      CONTI NUOUS NASHYD         1. 0 01: O 15            10. 67       .385 No_date   28: 13   23. 43  .410      .000
03848>          [ CN=  82. 0: N=  3. 00: Tp=   . 30]
03849>          [ I aREC=  4. 00: SMN=  23. 09: SMX=153. 94: SK=  .010]
03850>          [ I nterEvent Time=   12. 00]
03851> R0005: C00143-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03852>      ADD HYD                    1. 0 02: PT6MC           472. 33     3. 863 No_date   29: 44   22. 73  n/ a      .000
03853>                             +   1. 0 02: O 15            10. 67       .385 No_date   28: 13   23. 43  n/ a      .000
03854>                         SUM=    1. 0 01: M C             483. 00     3. 921 No_date   29: 44   22. 75  n/ a      .000
03855> R0005: C00144-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03856>      ROUTE CHANNEL              - >    1. 0 02: M C             483. 00     3. 921 No_date   29: 44   22. 75  n/ a      .000
03857>          [ RDT=  1. 00] out <-          1. 0 01: O 14Ch          483. 00     3. 787 No_date   30: 06   22. 75  n/ a      .000
03858>          [ L/ S/ n=   845. /  . 100/ . 033]
03859>          [ Vmax=   . 748: Dmax=  1. 430]
03860> R0005: C00145-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03861>      CONTI NUOUS NASHYD         1. 0 01: O 14            5. 00       .300 No_date   28: 04   23. 43  .410      .000
03862>          [ CN=  82. 0: N=  3. 00: Tp=   . 13]
03863>          [ I aREC=  4. 00: SMN=  23. 09: SMX=153. 94: SK=  .010]
03864>          [ I nterEvent Time=   12. 00]
03865> R0005: C00146-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03866>      ADD HYD                    1. 0 02: O 14Ch          483. 00     3. 787 No_date   30: 06   22. 75  n/ a      .000
03867>                             +   1. 0 02: O 14            5. 00       .300 No_date   28: 04   23. 43  n/ a      .000
03868>                         SUM=    1. 0 01: OKEEFE          488. 00     3. 807 No_date   30: 06   22. 75  n/ a      .000
03869> #*************************************************************************
03870> #     Okeefe Pond
03871> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
03872> #       and a ratio of the catchment area to the West Clarke pond rating curve
03873> #       from the MSS for the next coordinates
03874> #*************************************************************************
03875> R0005: C00147-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03876>      CONTI NUOUS STANDHYD       1. 0 01: S- 1- D2        18. 67      2. 097 No_date   28: 02   42. 00  .735      .000
03877>          [ XI M=. 65: TI MP=. 65]
03878>          [ LOSS=  2 : CN=  75. 0]
03879>          [ Pervious      area: I A/ p=  4. 67: SLPP=2. 00: LG/ P=   40.: MNP=. 250: SCP=    .0]
03880>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  . 75: LG/ I =  353.: MNI =. 013: SCI =    .0]
03881>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03882>          [ SMN=  33. 81: SMX=225. 43: SK=  .010]
03883> R0005: C00148-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03884>      COMPUTE DUALHYD            1. 0 01: S- 1- D2        18. 67      2. 097 No_date   28: 02   42. 00  n/ a      .000
03885>          Major System   /       1. 0 02: S- 1- D2J          .00        .000 No_date    0: 00     .00  n/ a      .000
03886>          Minor System   \       1. 0 03: S- 1- D2N        18. 67      2. 097 No_date   28: 02   42. 00  n/ a      .000
03887>          [ MJ Sys St o=. 1144E- 01,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03888> R0005: C00149-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03889>      ADD HYD                    1. 0 02: S- 1- D2J          .00        .000 No_date    0: 00     .00  n/ a      .000
03890>                             +   1. 0 02: S- 1- D2N        18. 67      2. 097 No_date   28: 02   42. 01  n/ a      .000
03891>                         SUM=    1. 0 01: S- 1- D2S        18. 67      2. 097 No_date   28: 02   42. 01  n/ a      .000
03892> R0005: C00150-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03893>      ROUTE RESERVOI R - >       1. 0 02: S- 1- D2S        18. 67      2. 097 No_date   28: 02   42. 01  n/ a      .000
03894>                           out <=    1. 0 01: S- 1- D2R        18. 67       .141 No_date   29: 24   42. 01  n/ a      .000
03895>                       overflow <=    1. 0 03: S- 1- D2Rovf        .00        .000 No_date    0: 00     .00  n/ a      .000
03896>          [ MaSt ol ked=. 4714E+00   m3,  Tot Ov f Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03897> R0005: C00151-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03898>      CONTI NUOUS STANDHYD       1. 0 01: S- 1- D3        6. 79       .831 No_date   28: 01   42. 00  .735      .000
03899>          [ XI M=. 65: TI MP=. 65]
03900>          [ LOSS=  2 : CN=  75. 0]
03901>          [ Pervious      area: I A/ p=  4. 67: SLPP=2. 00: LG/ P=   40.: MNP=. 250: SCP=    .0]
03902>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  . 75: LG/ I =  213.: MNI =. 013: SCI =    .0]
03903>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03904>          [ SMN=  33. 81: SMX=225. 43: SK=  .010]
03905> R0005: C00152-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03906>      COMPUTE DUALHYD            1. 0 01: S- 1- D3        6. 79       .831 No_date   28: 01   42. 00  n/ a      .000
03907>          Major System   /       1. 0 02: S- 1- D3J          .00        .000 No_date    0: 00     .00  n/ a      .000
03908>          Minor System   \       1. 0 03: S- 1- D3N        6. 79       .831 No_date   28: 01   42. 00  n/ a      .000
03909>          [ MJ Sys St o=. 0000E+00,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03910> R0005: C00153-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03911>      ADD HYD                    1. 0 02: S- 1- D3J          .00        .000 No_date    0: 00     .00  n/ a      .000
03912>                             +   1. 0 02: S- 1- D3N        6. 79       .831 No_date   28: 01   42. 00  n/ a      .000
03913>                         SUM=    1. 0 01: S- 1- D3S        6. 79       .831 No_date   28: 01   42. 00  n/ a      .000
03914> R0005: C00154-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03915>      ROUTE RESERVOI R - >       1. 0 02: S- 1- D3S        6. 79       .831 No_date   28: 01   42. 00  n/ a      .000
03916>                           out <=    1. 0 01: S- 1- D3R        6. 79       .051 No_date   29: 18   42. 00  n/ a      .000
03917>                       overflow <=    1. 0 03: S- 1- D3Rovf        .00        .000 No_date    0: 00     .00  n/ a      .000
03918>          [ MaSt ol ked=. 1715E+00   m3,  Tot Ov f Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03919> R0005: C00155-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03920>      ADD HYD                    1. 0 02: N_OK            53064. 36    68. 074 No_date   34: 06   18. 33  n/ a      .000
03921>                             +   1. 0 02: OKEEFE          488. 00     3. 807 No_date   30: 06   22. 75  n/ a      .000
03922>                             +   1. 0 02: S- 1- D2R        18. 67       .141 No_date   29: 24   42. 01  n/ a      .000
03923>                             +   1. 0 02: S- 1- D3R         6. 79       .051 No_date   29: 18   42. 00  n/ a      .000
03924>                             +   1. 0 02: S- 1- D3Rovf        .00        .000 No_date    0: 00     .00  n/ a      .000
03925>                             +   1. 0 02: S- 1- D3Rovf        .00        .000 No_date    0: 00     .00  n/ a      .000
03926>                         SUM=    1. 0 01: SN_OK           53577. 82    69. 530 No_date   34: 06   18. 39  n/ a      .000
03927> R0005: C00156-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03928>      SAVE HYD                   1. 0 01: SN_OK           53577. 82    69. 530 No_date   34: 06   18. 39  n/ a      .000
03929>          fname : SN_OK 0005
03930>          remark: Total Flows at Okeefe Drain
03931> #
03932> # Hydrograph from Node Okeefe routed to Node at Foster Drain
03933> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
03934> #
03935> R0005: C00157-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03936>      ROUTE CHANNEL              - >    1. 0 02: SN_OK           53577. 82    69. 530 No_date   34: 06   18. 39  n/ a      .000
03937>          [ RDT=  1. 00] out <-          1. 0 01: N_FO            53577. 82    69. 319 No_date   34: 07   18. 39  n/ a      .000
03938>          [ L/ S/ n=  1183. /  . 076/ . 035]
03939>          [ Vmax=  1. 032: Dmax=   . 825]
03940> #*************************************************************************
03941> #     Catchment  FOSTER
03942> #     - To Foster ditch (north of the Jock)
03943> #     - Partially developed (medium density); remining agricultural
03944> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CHEMHILL, Aug 2013.
03945> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
03946> #     - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
03947> #*************************************************************************
03948> R0005: C00158-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03949>      CONTI NUOUS STANDHYD       1. 0 01: FOSTER          325. 44     19. 055 No_date   28: 13   37. 71  .660      .000
03950>          [ XI M=. 55: TI MP=. 55]
03951>          [ LOSS=  2 : CN=  74. 0]
03952>          [ Pervious      area: I A/ p=  4. 67: SLPP=  . 50: LG/ P=   40.: MNP=. 250: SCP=    .0]
03953>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  . 50: LG/ I =1473. : MNI =. 013: SCI =    .0]
03954>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03955>          [ SMN=  36. 67:  SMX=244. 49:  SK=  .010]
03956> #*************************************************************************
03957> #     Foster  Pond
03958> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
03959> #       and a ratio of the catchment area to the West Clarke pond rating curve
03960> #       from the MSS for the next coordinates
03961> #*************************************************************************
03962> R0005: C00159-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03963>      ROUTE RESERVOI R - >       1. 0 02: FOSTER          325. 44     19. 055 No_date   28: 13   37. 71  n/ a      .000
03964>                           out <=    1. 0 01: P_FOS           325. 44      5. 174 No_date   29: 08   37. 71  n/ a      .000
03965>                       overflow <=    1. 0 03: FO- OVF        .00        .000 No_date    0: 00     .00  n/ a      .000
03966>          [ MaSt ol ked=. 5004E+01   m3,  Tot Ov f Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03967> R0005: C00160-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03968>      ADD HYD                    1. 0 02: P_FOS           325. 44      5. 174 No_date   29: 08   37. 71  n/ a      .000
03969>                             +   1. 0 02: FO- OVF            .00        .000 No_date    0: 00     .00  n/ a      .000
03970>                         SUM=    1. 0 01: FOSTER- OUT     325. 44      5. 174 No_date   29: 08   37. 71  n/ a      .000
03971> #*************************************************************************
03972> R0005: C00161-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03973>      CONTI NUOUS STANDHYD       1. 0 01: W_CLAR_BRA       73. 29      6. 276 No_date   28: 06   41. 22  .722      .000
03974>          [ XI M=. 60: TI MP=. 65]
03975>          [ LOSS=  2 : CN=  77. 0]
03976>          [ Pervious      area: I A/ p=  4. 67: SLPP=1. 00: LG/ P=   40.: MNP=. 250: SCP=    .0]
03977>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  . 50: LG/ I =  699.: MNI =. 013: SCI =    .0]
03978>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03979>          [ SMN=  31. 15:  SMX=207. 66:  SK=  .010]
03980> R0005: C00162-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03981>      ROUTE RESERVOI R - >       1. 0 02: W_CLAR_BRA       73. 29      6. 276 No_date   28: 06   41. 22  n/ a      .000
03982>                           out <=    1. 0 01: MS_P10          73. 29      1. 101 No_date   28: 56   41. 22  n/ a      .000
03983>                       overflow <=    1. 0 03: P10- OVF        .00        .000 No_date    0: 00     .00  n/ a      .000
03984>          [ MaSt ol ked=. 1093E+01   m3,  Tot Ov f Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03985> R0005: C00163-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03986>      CONTI NUOUS STANDHYD       1. 0 01: S- 1- FO- D2     4. 94       .508 No_date   28: 01   37. 71  .660      .000
03987>          [ XI M=. 55: TI MP=. 55]
03988>          [ LOSS=  2 : CN=  74. 0]
03989>          [ Pervious      area: I A/ p=  4. 67: SLPP=  . 50: LG/ P=   40.: MNP=. 250: SCP=    .0]
03990>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  . 50: LG/ I =  181.: MNI =. 013: SCI =    .0]
03991>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
03992>          [ SMN=  36. 67:  SMX=244. 49:  SK=  .010]
03993> R0005: C00164-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03994>      COMPUTE DUALHYD            1. 0 01: S- 1- FO- D2     4. 94       .508 No_date   28: 01   37. 71  n/ a      .000
03995>          Major System   /       1. 0 02: S- 1- FO- D2J       .00        .000 No_date    0: 00     .00  n/ a      .000
03996>          Minor System   \       1. 0 03: S- 1- FO- D2N     4. 94       .508 No_date   28: 01   37. 73  n/ a      .000
03997>          [ MJ Sys St o=. 2737E- 02,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
03998> R0005: C00165-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
03999>      ADD HYD                    1. 0 02: S- 1- FO- D2J       .00        .000 No_date    0: 00     .00  n/ a      .000
04000>                             +   1. 0 02: S- 1- FO- D2N     4. 94       .508 No_date   28: 01   37. 73  n/ a      .000
04001>                         SUM=    1. 0 01: S- 1- FO- D2S     4. 94       .508 No_date   28: 01   37. 73  n/ a      .000
04002> R0005: C00166-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04003>      ROUTE RESERVOI R - >       1. 0 02: S- 1- FO- D2S     4. 94       .508 No_date   28: 01   37. 73  n/ a      .000
04004>                           out <=    1. 0 01: S- 1- FO- D2R     4. 94       .033 No_date   29: 34   37. 73  n/ a      .000
04005>                       overflow <=    1. 0 03: S- 1- FO- D2ovf        .00        .000 No_date    0: 00     .00  n/ a      .000
04006>          [ MaSt ol ked=. 1108E+00   m3,  Tot Ov f Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
04007> R0005: C00167-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04008>      ADD HYD                    1. 0 02: FOSTER- OUT     325. 44      5. 174 No_date   29: 08   37. 71  n/ a      .000
04009>                             +   1. 0 02: S- 1- FO- D2R     4. 94       .033 No_date   29: 34   37. 73  n/ a      .000
04010>                             +   1. 0 02: S- 1- FO- D2ovf        .00        .000 No_date    0: 00     .00  n/ a      .000
04011>                         SUM=    1. 0 01: 980             330. 38      5. 207 No_date   29: 08   37. 71  n/ a      .000
04012> R0005: C00168-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04013>      SAVE HYD                   1. 0 01: 980             330. 38      5. 207 No_date   29: 08   37. 71  n/ a      .000
04014>          fname : 980. 0005
04015>          remark: Total Flows at Station 980 on Foster Drain
04016> #
04017> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
04018> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
04019> #
04020> R0005: C00169-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04021>      ROUTE CHANNEL              - >    1. 0 02: 980             330. 38      5. 207 No_date   29: 08   37. 71  n/ a      .000
04022>          [ RDT=  1. 00] out <-          1. 0 01: 980- out        330. 38      5. 026 No_date   29: 21   37. 71  n/ a      .000
04023>          [ L/ S/ n=   460. /  . 043/ . 035]
04024>          [ Vmax=   . 602: Dmax=  1. 267]
04025> R0005: C00170-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04026>      CONTI NUOUS STANDHYD       1. 0 01: S- 1- FO- DI     5. 11       .605 No_date   28: 00   41. 68  .730      .000
04027>          [ XI M=. 65: TI MP=. 65]
04028>          [ LOSS=  2 : CN=  74. 0]
04029>          [ Pervious      area: I A/ p=  4. 67: SLPP=  . 50: LG/ P=   40.: MNP=. 250: SCP=    .0]
04030>          [ I mpervious   area: I A/ m=  1. 57: SLPI =  . 50: LG/ I =  185.: MNI =. 013: SCI =    .0]
04031>          [ I aREC] mp=    4. 00: I aREC per=    4. 00]
04032>          [ SMN=  36. 67:  SMX=244. 49:  SK=  .010]
04033> R0005: C00171-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04034>      COMPUTE DUALHYD            1. 0 01: S- 1- FO- DI     5. 11       .605 No_date   28: 00   41. 68  n/ a      .000
04035>          Major System   /       1. 0 02: S- 1- FO- DIJ       .00        .000 No_date    0: 00     .00  n/ a      .000
04036>          Minor System   \       1. 0 03: S- 1- FO- DIN     5. 11       .605 No_date   28: 00   41. 68  n/ a      .000
04037>          [ MJ Sys St o=. 1107E- 01,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
04038> R0005: C00172-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04039>      ADD HYD                    1. 0 02: S- 1- FO- DIN     5. 11       .605 No_date   28: 00   41. 68  n/ a      .000
04040>                             +   1. 0 02: S- 1- FO- DIJ       .00        .000 No_date    0: 00     .00  n/ a      .000
04041>                         SUM=    1. 0 01: S- 1- FO- DIS     5. 11       .605 No_date   28: 00   41. 68  n/ a      .000
04042> R0005: C00173-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04043>      ROUTE RESERVOI R - >       1. 0 02: S- 1- FO- DIS     5. 11       .605 No_date   28: 00   41. 68  n/ a      .000
04044>                           out <=    1. 0 01: S- 1- FO- DIR     5. 11       .038 No_date   29: 28   41. 68  n/ a      .000
04045>                       overflow <=    1. 0 03: S- 1- FO- DIovf        .00        .000 No_date    0: 00     .00  n/ a      .000
04046>          [ MaSt ol ked=. 1277E+00   m3,  Tot Ov f Vol =. 0000E+00    m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
04047> R0005: C00174-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
04048>      ADD HYD                    1. 0 02: 980- out        330. 38      5. 026 No_date   29: 21   37. 71  n/ a      .000
04049>                             +   1. 0 02: S- 1- FO- DIR     5. 11       .038 No_date   29: 28   41. 68  n/ a      .000
04050>                             +   1. 0 02: S- 1- FO- DIovf        .00        .000 No_date    0: 00     .00  n/ a      .000
04051>                         SUM=    1. 0 01: 520             335. 49      5. 064 No_date   29: 21   37. 77  n/ a      .000
04052> R0005: C00175-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R.
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04115>          [ IaREC= 4. 00:  SM N= 31. 15:  SMXx=207. 66:  SK= .010]
04116>          [ InterEventTime=  12. 00]
04117> R0005: C00187-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04118>      ADD HYD                  1. 0 02: N_FO        53577. 82    69. 319 No_date    34: 07    18. 39   n/a      .000
04119>                           +   1. 0 02: 520- out       335. 49     5. 028 No_date    29: 32    37. 77   n/a      .000
04120>                           +   1. 0 02: MS_P10          73. 29     1. 101 No_date    28: 56    41. 22   n/a      .000
04121>                           +   1. 0 02: P10- OVF          .00      .000 No_date     0: 00      .00    n/a      .000
04122>                           +   1. 0 02: W_CLAR_UND       35. 65     .462 No_date    29: 11    21. 69   n/a      .000
04123>                           +   1. 0 02: S- 1FloEffovf      .00      .000 No_date     0: 00      .00    n/a      .000
04124>                           +   1. 0 02: S- 1FO- F- DR     14. 96     .112 No_date    29: 32    41. 69   n/a      .000
04125>                           +   1. 0 02: S- 1- DSRovf       .00      .000 No_date     0: 00      .00    n/a      .000
04126>                           +   1. 0 02: S- 1- DSR         5. 27     .036 No_date    28: 48    30. 94   n/a      .000
04127>                           +   1. 0 02: S- 1- A           75. 88    1. 479 No_date    28: 37    21. 69   n/a      .000
04128>                       SUM=    1. 0 01: SN_FO       54118. 36   72. 161 No_date    33: 44    18. 55   n/a      .000
04129> R0005: C00188-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04130>      SAVE HYD                 1. 0 01: SN_FO       54118. 36   72. 161 No_date    33: 44    18. 55   n/a      .000
04131>          fname: SN_FO 0005
04132>          remark: Total Flows at Foster Drain
04133> # Hydrograph from Node Foster routed to Node at Cedarview Road
04134> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
04135> #
04136> R0005: C00189-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04137>      ROUTE CHANNEL    ->     1. 0 02: SN_FO       54118. 36   72. 161 No_date    33: 44    18. 55   n/a      .000
04138> *    [ RDT= 1. 00]  out <-    1. 0 01: N_CE        54118. 36   72. 088 No_date    34: 08    18. 55   n/a      .000
04139>          [ LI/ S/ n=   159. / . 082/ . 035]
04140>          [ Vmax= 1. 248: Dmax= 3. 107]
04141> #*******************************************************************************
04142> #    Catchment S- 1
04143> #    - To Jock River (north and south of Jock)
04144> #    - Primarily agricultural fields; portion of sand quarry
04145> #*******************************************************************************
04146> R0005: C00190-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04147>      CONTINUOUS  NASHYD       1. 0 01: S- 1- B        55. 36     1. 342 No_date    28: 24    21. 69   . 380    .000
04148>          [ CN= 77. 0:  N= 3. 00:  Tp=     45]
04149>          [ IaREC= 4. 00:  SM N= 31. 15:  SMXx=207. 66:  SK= .010]
04150>          [ InterEventTime=  12. 00]
04151> #    -   JFSA 2021- 02- 24 change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
04152> #    -   JFSA 2021- 02- 24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore.  "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
04153> #    -   JFSA 2021- 01- 19, after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymore
04154> R0005: C00191-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04155>      CONTINUOUS  STANDHYD      1. 0 01: S- 1- DI       21. 67     2. 409 No_date    28: 02    42. 00   . 735    .000
04156>          [ XI M= . 65:  TI M= . 65]
04157>          [ LOSS= 2 :  CN= 75. 0]
04158>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04159>          [ Impervious    area:  I Aimp= 1. 57:  SLPI= . 75:  LGI= 380. :  MNI= . 013:  SCI=    . 0]
04160>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04161>          [ SM N= 33. 81:  SMXx=225. 43:  SK= . 010]
04162> R0005: C00192-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04163>      COMPUTE DUALHYD          1. 0 01: S- 1- DI        21. 67     2. 409 No_date    28: 02    42. 00   n/a      .000
04164>          Major System    /        1. 0 02: S- 1- DIJ       .00      .000 No_date     0: 00      .00    n/a      .000
04165>          Minor System    \        1. 0 03: S- 1- DIN      21. 67     2. 409 No_date    28: 02    42. 01   n/a      .000
04166>          [ MJ SysSto= . 2250E- 01,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04167> R0005: C00193-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04168>      ADD HYD                  1. 0 02: S- 1- DIJ       .00      .000 No_date     0: 00      .00    n/a      .000
04169>                           +   1. 0 02: S- 1- DIN      21. 67     2. 409 No_date    28: 02    42. 01   n/a      .000
04170>                       SUM=    1. 0 01: S- 1- DIS      21. 67     2. 409 No_date    28: 02    42. 01   n/a      .000
04171> R0005: C00194-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04172>      ROUTE RESERVOIR  ->      1. 0 02: S- 1- DIS      21. 67     2. 409 No_date    28: 02    42. 01   n/a      .000
04173>                       out <=   1. 0 01: S- 1- DIR      21. 67      .164 No_date    29: 24    42. 01   n/a      .000
04174>                   overflow <=  1. 0 03: S- 1- DIRovf       .00      .000 No_date     0: 00      .00    n/a      .000
04175>          {MxStoRked= . 5470E+ 00   m3,  Tot Or f Vol= . 0000E+ 00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs}
04176> R0005: C00195-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04177>      CONTINUOUS  STANDHYD      1. 0 01: S- 1- DA        3. 28      .421 No_date    28: 00    42. 00   . 735    .000
04178>          [ XI M= . 65:  TI M= . 65]
04179>          [ LOSS= 2 :  CN= 75. 0]
04180>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04181>          [ Impervious    area:  I Aimp= 1. 57:  SLPI= . 75:  LGI= 148. :  MNI= . 013:  SCI=    . 0]
04182>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04183>          [ SM N= 33. 81:  SMXx=225. 43:  SK= . 010]
04184> R0005: C00196-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04185>      COMPUTE DUALHYD          1. 0 01: S- 1- DA        3. 28      .421 No_date    28: 00    42. 00   n/a      .000
04186>          Major System    /        1. 0 02: S- 1- DIJ       .00      .000 No_date     0: 00      .00    n/a      .000
04187>          Minor System    \        1. 0 03: S- 1- DIN      3. 28      .421 No_date    28: 00    42. 01   n/a      .000
04188>          [ MJ SysSto= . 1821E- 01,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04189> R0005: C00197-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04190>      ADD HYD                  1. 0 02: S- 1- DIJ       .00      .000 No_date     0: 00      .00    n/a      .000
04191>                           +   1. 0 02: S- 1- DIN      3. 28      .421 No_date    28: 00    42. 01   n/a      .000
04192>                       SUM=    1. 0 01: S- 1- DIS      3. 28      .421 No_date    28: 00    42. 01   n/a      .000
04193> R0005: C00198-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04194>      ROUTE RESERVOIR  ->      1. 0 02: S- 1- DIS      3. 28      .421 No_date    28: 00    42. 01   n/a      .000
04195>                       out <=   1. 0 01: S- 1- DIR      3. 28      .025 No_date    29: 15    42. 01   n/a      .000
04196>                   overflow <=  1. 0 03: S- 1- DIRovf       .00      .000 No_date     0: 00      .00    n/a      .000
04197>          {MxStoRked= . 8289E- 01   m3,  Tot Or f Vol= . 0000E+ 00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs}
04198> R0005: C00199-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04199>      CONTINUOUS  STANDHYD      1. 0 01: S- 1- DS       12. 84     1. 500 No_date    28: 01    42. 00   . 735    .000
04200>          [ XI M= . 65:  TI M= . 65]
04201>          [ LOSS= 2 :  CN= 75. 0]
04202>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04203>          [ Impervious    area:  I Aimp= 1. 57:  SLPI= . 75:  LGI= 293. :  MNI= . 013:  SCI=    . 0]
04204>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04205>          [ SM N= 33. 81:  SMXx=225. 43:  SK= . 010]
04206> R0005: C00200-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04207>      COMPUTE DUALHYD          1. 0 01: S- 1- DS       12. 84     1. 500 No_date    28: 01    42. 00   n/a      .000
04208>          Major System    /        1. 0 02: S- 1- DSJ       .00      .000 No_date     0: 00      .00    n/a      .000
04209>          Minor System    \        1. 0 03: S- 1- DSN      12. 84     1. 500 No_date    28: 02    42. 00   n/a      .000
04210>          [ MJ SysSto= . 1838E- 01,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04211> R0005: C00201-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04212>      ADD HYD                  1. 0 02: S- 1- DSJ       .00      .000 No_date     0: 00      .00    n/a      .000
04213>                           +   1. 0 02: S- 1- DSN      12. 84     1. 500 No_date    28: 01    42. 00   n/a      .000
04214>                       SUM=    1. 0 01: S- 1- DSS      12. 84     1. 500 No_date    28: 01    42. 00   n/a      .000
04215> R0005: C00202-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04216>      ROUTE RESERVOIR  ->      1. 0 02: S- 1- DSS      12. 84     1. 500 No_date    28: 01    42. 00   n/a      .000
04217>                       out <=   1. 0 01: S- 1- DSR      12. 84      .097 No_date    29: 21    42. 00   n/a      .000
04218>                   overflow <=  1. 0 03: S- 1- DSRovf       .00      .000 No_date     0: 00      .00    n/a      .000
04219>          {MxStoRked= . 3242E+ 00   m3,  Tot Or f Vol= . 0000E+ 00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs}
04220> R0005: C00203-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04221>      CONTINUOUS  STANDHYD      1. 0 01: S- 1- D6        1. 75      .232 No_date    28: 00    42. 00   . 735    .000
04222>          [ XI M= . 65:  TI M= . 65]
04223>          [ LOSS= 2 :  CN= 75. 0]
04224>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04225>          [ Impervious    area:  I Aimp= 1. 57:  SLPI= . 75:  LGI= 108. :  MNI= . 013:  SCI=    . 0]
04226>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04227>          [ SM N= 33. 81:  SMXx=225. 43:  SK= . 010]
04228> R0005: C00204-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04229>      COMPUTE DUALHYD          1. 0 01: S- 1- D6        1. 75      .232 No_date    28: 00    42. 00   n/a      .000
04230>          Major System    /        1. 0 02: S- 1- D6J       .00      .000 No_date     0: 00      .00    n/a      .000
04231>          Minor System    \        1. 0 03: S- 1- D6N      1. 75      .232 No_date    28: 00    42. 00   n/a      .000
04232>          [ MJ SysSto= . 0000E+ 00,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04233> R0005: C00205-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04234>      ADD HYD                  1. 0 02: S- 1- D6J       .00      .000 No_date     0: 00      .00    n/a      .000
04235>                           +   1. 0 02: S- 1- D6N      1. 75      .232 No_date    28: 00    42. 00   n/a      .000
04236>                       SUM=    1. 0 01: S- 1- D6S      1. 75      .232 No_date    28: 00    42. 00   n/a      .000
04237> R0005: C00206-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04238>      ROUTE RESERVOIR  ->      1. 0 02: S- 1- D6S      1. 75      .232 No_date    28: 00    42. 00   n/a      .000
04239>                       out <=   1. 0 01: S- 1- D6R      1. 75      .013 No_date    29: 13    42. 00   n/a      .000
04240>                   overflow <=  1. 0 03: S- 1- D6Rovf       .00      .000 No_date     0: 00      .00    n/a      .000
04241>          {MxStoRked= . 4422E- 01   m3,  Tot Or f Vol= . 0000E+ 00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs}
04242> R0005: C00207-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04243>      CONTINUOUS  STANDHYD      1. 0 01: S- 1- D7        2. 03      .265 No_date    28: 00    42. 00   . 735    .000
04244>          [ XI M= . 65:  TI M= . 65]
04245>          [ LOSS= 2 :  CN= 75. 0]
04246>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04247>          [ Impervious    area:  I Aimp= 1. 57:  SLPI= . 75:  LGI= 116. :  MNI= . 013:  SCI=    . 0]
04248>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04249>          [ SM N= 33. 81:  SMXx=225. 43:  SK= . 010]
04250> R0005: C00208-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04251>      COMPUTE DUALHYD          1. 0 01: S- 1- D7        2. 03      .265 No_date    28: 00    42. 00   n/a      .000
04252>          Major System    /        1. 0 02: S- 1- D7J       .00      .000 No_date     0: 00      .00    n/a      .000
04253>          Minor System    \        1. 0 03: S- 1- D7N      2. 03      .265 No_date    28: 00    42. 02   n/a      .000
04254>          [ MJ SysSto= . 7775E- 02,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04255> R0005: C00209-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04256>      ADD HYD                  1. 0 02: S- 1- D7J       .00      .000 No_date     0: 00      .00    n/a      .000
04257>                           +   1. 0 02: S- 1- D7N      2. 03      .265 No_date    28: 00    42. 02   n/a      .000
04258>                       SUM=    1. 0 01: S- 1- D7S      2. 03      .265 No_date    28: 00    42. 02   n/a      .000
04259> R0005: C00210-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04260>      ROUTE RESERVOIR  ->      1. 0 02: S- 1- D7S      2. 03      .265 No_date    28: 00    42. 02   n/a      .000
04261>                       out <=   1. 0 01: S- 1- D7R      2. 03      .015 No_date    29: 14    42. 01   n/a      .000
04262>                   overflow <=  1. 0 03: S- 1- D7Rovf       .00      .000 No_date     0: 00      .00    n/a      .000
04263>          {MxStoRked= . 5131E- 01   m3,  Tot Or f Vol= . 0000E+ 00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs}
04264> #    Catchment W_CLAR
04265> #    - To West Clarke Drain (south of the Jock)
04266> #    - Subdivision with 43% imp. as per Barrhaven South MSS
04267> #    - 2020- 11- 30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)- 11
04268> #    - 2020- 11- 30 split CLARKE Drainage Area to MAJOR and ALL
04269> #*******************************************************************************
04270> R0005: C00211-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04271>      CONTINUOUS  STANDHYD      1. 0 01: W_CLAR_MI       1. 77      .192 No_date    28: 00    37. 36   . 654    .000
04272>          [ XI M= . 46:  TI M= . 59]
04273>          [ LOSS= 2 :  CN= 77. 0]
04274>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 1. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04275>          [ Impervious    area:  I Aimp= 1. 57:  SLPI= 1. 00:  LGI= 109. :  MNI= . 013:  SCI=    . 0]
04276>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04277>          [ SM N= 31. 15:  SMXx=207. 66:  SK= . 010]
04278> # 5- Year + 12% Capture
04279> R0005: C00212-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04280>      ROUTE RESERVOIR  ->      1. 0 02: W_CLAR_MI       1. 77      .192 No_date    28: 00    37. 36   n/a      .000
04281>                       out <=   1. 0 01: W_CLAR_Mn      1. 77      .192 No_date    28: 00    37. 36   n/a      .000
04282>                   overflow <=  1. 0 03: W_CLAR_Mj       .00      .000 No_date     0: 00      .00    n/a      .000
04283>          {MxStoRked= . 9116E- 04   m3,  Tot Or f Vol= . 0000E+ 00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs}
04284> R0005: C00213-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04285>      CONTINUOUS  STANDHYD      1. 0 01: W_CLAR_ALL    119. 40    10. 597 No_date    28: 05    41. 22   . 722    .000
04286>          [ XI M= . 60:  TI M= . 65]
04287>          [ LOSS= 2 :  CN= 77. 0]
04288>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 1. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04289>          [ Impervious    area:  I Aimp= 1. 57:  SLPI= 1. 00:  LGI= 892. :  MNI= . 013:  SCI=    . 0]
04290>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04291>          [ SM N= 31. 15:  SMXx=207. 66:  SK= . 010]
04292> R0005: C00214-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04293>      ADD HYD                  1. 0 02: W_CLAR_ALL    119. 40    10. 597 No_date    28: 05    41. 22   n/a      .000
04294>                           +   1. 0 02: W_CLAR_Mj       .00      .000 No_date     0: 00      .00    n/a      .000
04295>                       SUM=    1. 0 01: W_CLAR         119. 40    10. 597 No_date    28: 05    41. 22   n/a      .000
04296> R0005: C00215-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04297>      SAVE HYD                 1. 0 01: W_CLAR         119. 40    10. 597 No_date    28: 05    41. 22   n/a      .000
04298>          fname: W_CLAR 0005
04299>          remark: Total Flows to West Clarke
04300> #*******************************************************************************
04301> #    West Clarke Pond 2
04302> #    - Rating curve obtained from Barrhaven South MSS modeling
04303> #    - Tributary Drainage Area to MSS Pond 2 = 241 ha
04304> #*******************************************************************************
04305> R0005: C00216-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04306>      ROUTE RESERVOIR  ->      1. 0 02: W_CLAR      119. 40    10. 597 No_date    28: 05    41. 22   n/a      .000
04307>                       out <=   1. 0 01: MS_P2       119. 40     1. 795 No_date    28: 54    41. 22   n/a      .000
04308>                   overflow <=  1. 0 03: P2- OVF         .00      .000 No_date     0: 00      .00    n/a      .000
04309>          {MxStoRked= . 2665E+ 01   m3,  Tot Or f Vol= . 0000E+ 00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs}
04310> #*******************************************************************************
04311> R0005: C00217-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04312>      ADD HYD                  1. 0 02: N_CE        54118. 36   72. 088 No_date    34: 08    18. 55   n/a      .000
04313>                           +   1. 0 02: S- 1- D1R        3. 28      .025 No_date    29: 15    42. 01   n/a      .000
04314>                           +   1. 0 02: S- 1- D5R       12. 84      .097 No_date    29: 21    42. 00   n/a      .000
04315>                           +   1. 0 02: S- 1- D4Rovf       .00      .000 No_date     0: 00      .00    n/a      .000
04316>                           +   1. 0 02: S- 1- D5Rovf       .00      .000 No_date     0: 00      .00    n/a      .000
04317>                           +   1. 0 02: MS_P2       119. 40     1. 795 No_date    28: 54    41. 22   n/a      .000
04318>                           +   1. 0 02: P2- OVF          .00      .000 No_date     0: 00      .00    n/a      .000
04319>                       SUM=    1. 0 01: SN_CE       54253. 88   72. 881 No_date    33: 45    18. 61   n/a      .000
04320> R0005: C00218-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04321>      SAVE HYD                 1. 0 01: SN_CE       54253. 88   72. 881 No_date    33: 45    18. 61   n/a      .000
04322>          fname: SN_CE 0005
04323>          remark: Total Flows before Station 5737 on Jock River
04324> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
04325> # 2021- 02- 25 add station 5737 before station 5002. Station 5737 was extracted from the HEC- RAS model T:\PROJ\1474- 16\Des
04326> # JFSA 2021- 03- 02  change the slope to 0. 0175% instead of 0. 02593 to stabilize the model
04327> R0005: C00219-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04328>      ROUTE CHANNEL    ->     1. 0 01: SN_CE       54253. 88   72. 881 No_date    33: 45    18. 61   n/a      .000
04329> *    [ RDT= 1. 00]  out <-    1. 0 01: 5737        54253. 88   69. 631 No_date    36: 44    18. 61   n/a      .000
04330>          [ LI/ S/ n=   270. / . 018/ . 035]
04331>          [ Vmax=   687: Dmax= 4. 035]
04332> R0005: C00220-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04333>      ADD HYD                  1. 0 02: 5737        54253. 88   69. 631 No_date    36: 44    18. 61   n/a      .000
04334>                           +   1. 0 02: S- 1- D1R        3. 28      .164 No_date    29: 24    42. 01   n/a      .000
04335>                           +   1. 0 02: S- 1- D6R        1. 75      .013 No_date    29: 13    42. 00   n/a      .000
04336>                           +   1. 0 02: S- 1- D7R        2. 03      .015 No_date    29: 14    42. 01   n/a      .000
04337>                           +   1. 0 02: S- 1- D1Rovf       .00      .000 No_date     0: 00      .00    n/a      .000
04338>                           +   1. 0 02: S- 1- D6Rovf       .00      .000 No_date     0: 00      .00    n/a      .000
04339>                           +   1. 0 02: S- 1- D7Rovf       .00      .000 No_date     0: 00      .00    n/a      .000
04340>                       SUM=    1. 0 01: 5002        54279. 33   69. 760 No_date    36: 44    18. 62   n/a      .000
04341> R0005: C00221-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04342>      SAVE HYD                 1. 0 01: 5002        54279. 33   69. 760 No_date    36: 44    18. 62   n/a      .000
04343>          fname: 5002 0005
04344>          remark: Total Flows before Station 5002 on Jock River
04345> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
04346> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
04347> # JFSA 2021- 02- 19  Change the slope from 0. 01 % (as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
04348> # JFSA 2021- 02- 19  Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
04349> # JFSA 2021- 02- 26  change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
04350> R0005: C00222-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04351>      ROUTE CHANNEL    ->     1. 0 02: 5002        54279. 33   69. 760 No_date    36: 44    18. 62   n/a      .000
04352>          [ RDT= 1. 00]  out <-    1. 0 01: N_WCa       54279. 33   69. 764 No_date    36: 42    18. 62   n/a      .000
04353>          [ LI/ S/ n=   245. / . 095/ . 035]
04354>          [ Vmax= 1. 068: Dmax= 2. 322]
04355> R0005: C00223-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04356>      ROUTE CHANNEL    ->     1. 0 02: N_WCa       54279. 33   69. 764 No_date    36: 42    18. 62   n/a      .000
04357>          [ RDT= 1. 00]  out <-    1. 0 01: N_WCb       54279. 33   69. 804 No_date    36: 35    18. 62   n/a      .000
04358>          [ LI/ S/ n=   245. / . 095/ . 035]
04359>          [ Vmax= 1. 068: Dmax= 2. 322]
04360> R0005: C00224-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04361>      ROUTE CHANNEL    ->     1. 0 02: N_WCb       54279. 33   69. 804 No_date    36: 35    18. 62   n/a      .000
04362>          [ RDT= 1. 00]  out <-    1. 0 01: N_WC        54279. 33   70. 173 No_date    36: 31    18. 62   n/a      .000
04363>          [ LI/ S/ n=   245. / . 095/ . 035]
04364>          [ Vmax= 1. 068: Dmax= 2. 323]
04365> #*******************************************************************************
04366> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
04367> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
04368> #
04369> R0005: C00225-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04370>      ROUTE CHANNEL    ->     1. 0 02: N_WC        54279. 33   70. 173 No_date    36: 31    18. 62   n/a      .000
04371>          [ RDT= 1. 00]  out <-    1. 0 01: N_KB        54279. 33   69. 932 No_date    36: 32    18. 62   n/a      .000
04372>          [ LI/ S/ n=  1020. / . 050/ . 035]
04373>          [ Vmax=   . 947: Dmax= 2. 863]
04374> #*******************************************************************************
04375> #    Catchment KEN_BU
04376> #    - To Kennedy- Burnett SWM Facility
04377> #    - Outlets to Fraser- Clarke drain (north of the Jock)
04378> #    - Medium density residential subdivision
04379> #*******************************************************************************
04380> #*******************************************************************************
04381> #    Existing Kennedy- Burnett SWM Facility
04382> #    - Rating curve obtained from URTRHP
04383> #    - Tributary Drainage Area to Pond = 160 ha
04384> #*******************************************************************************
04385> R0005: C00226-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04386>      CONTINUOUS  STANDHYD      1. 0 01: KB- 01A        40. 82     2. 624 No_date    28: 14    20. 08   . 351    .000
04387>          [ XI M= . 10:  TI M= . 40]
04388>          [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F=    . 00]
04389>          [ Pervious      area:  I Aper= 4. 67:  SLPP=   . 50:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04390>          [ Impervious    area:  I Aimp=   . 79:  SLPI= . 50:  LGI= 522. :  MNI= . 013:  SCI=    . 0]
04391>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04392> R0005: C00227-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04393>      COMPUTE DUALHYD          1. 0 01: KB- 01A        40. 82     2. 624 No_date    28: 14    20. 08   n/a      .000
04394>          Major System    /        1. 0 02: KB- 01A- MI      .00      .000 No_date     0: 00      .00    n/a      .000
04395>          Minor System    \        1. 0 03: KB- 01A- MN     40. 82     2. 624 No_date    28: 14    20. 08   n/a      .000
04396>          [ MJ SysSto= . 0000E+ 00,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04397> R0005: C00228-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04398>      ADD HYD                  1. 0 02: KB- 01A- MI      .00      .000 No_date     0: 00      .00    n/a      .000
04399>                           +   1. 0 02: KB- 01A- MN     40. 82     2. 624 No_date    28: 14    20. 08   n/a      .000
04400>                       SUM=    1. 0 01: KB- 01A- S      40. 82     2. 624 No_date    28: 14    20. 08   n/a      .000
04401> R0005: C00229-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04402>      CONTINUOUS  STANDHYD      1. 0 01: KB- 01B        31. 10     1. 779 No_date    28: 08    22. 42   . 393    .000
04403>          [ XI M= . 19:  TI M= . 38]
04404>          [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F=    . 00]
04405>          [ Pervious      area:  I Aper= 4. 67:  SLPP=   . 42:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04406>          [ Impervious    area:  I Aimp=   . 79:  SLPI= . 42:  LGI= 455. :  MNI= . 013:  SCI=    . 0]
04407>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04408> R0005: C00230-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04409>      COMPUTE DUALHYD          1. 0 01: KB- 01B        31. 10     1. 779 No_date    28: 08    22. 42   n/a      .000
04410>          Major System    /        1. 0 02: KB- 01B- MI      .00      .000 No_date     0: 00      .00    n/a      .000
04411>          Minor System    \        1. 0 03: KB- 01B- MN     31. 10     1. 585 No_date    28: 03    22. 52   n/a      .000
04412>          [ MJ SysSto= . 1530E+ 03,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04413> R0005: C00231-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04414>      ADD HYD                  1. 0 02: KB- 01B- MI      .00      .000 No_date     0: 00      .00    n/a      .000
04415>                           +   1. 0 02: KB- 01B- MN     31. 10     1. 585 No_date    28: 03    22. 52   n/a      .000
04416>                       SUM=    1. 0 01: KB- 01B- S      31. 10     1. 585 No_date    28: 03    22. 52   n/a      .000
04417> R0005: C00232-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04418>      CONTINUOUS  STANDHYD      1. 0 01: KB- 01C        13. 78     1. 235 No_date    28: 05    23. 43   . 410    .000
04419>          [ XI M= . 20:  TI M= . 41]
04420>          [ Horton parameters:  Fo= 76. 20:  Fc= 13. 20:  DCAY= 4. 14:    F=    . 00]
04421>          [ Pervious      area:  I Aper= 4. 67:  SLPP= 2. 00:  LGP=   40. :  MNP= . 250:  SCP=    . 0]
04422>          [ Impervious    area:  I Aimp=   . 79:  SLPI= . 50:  LGI= 303. :  MNI= . 013:  SCI=    . 0]
04423>          [ IaREC mp=   4. 00:  IaRECper=   4. 00]
04424> R0005: C00233-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C. ---DWFcms
04425>      COMPUTE DUALHYD          1. 0 01: KB- 01C        13. 78     1. 235 No_date    28: 05    23. 43   n/a      .000
04426>          Major System    /        1. 0 02: KB- 01C- MJ      .00      .000 No_date     0: 00      .00    n/a      .000
04427>          Minor System    \        1. 0 03: KB- 01C- MN     13. 78     1. 235 No_date    28: 05    23. 43   n/a      .000
04428>          [ MJ SysSto= . 0000E+ 00,  Tot Or f Vol= . 0000E+ 00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
04429> R0005: C00234-------
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04489>          CONTINUOUS STANDHYD     1.0 01: KB-11           4.03      .584 No_date   28:00   41.88 .733      .000
04490>            [XI M=. 68: TI M=. 68]
04491>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04492>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04493>            [Impervious     area: IAimp=  .79: SLPI=2. 00: LGI= 164. : MNI=. 013: SCI=     .0]
04494>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04495> R0005: C00246-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04496>          COMPUTE DUALHYD         1.0 01: KB-11           4.03      .584 No_date   28:00   41.88  n/a      .000
04497>            Major System    /     1.0 02: KB-11-MJ          .00      .000 No_date   0:00     .00  n/a      .000
04498>            Minor System    \     1.0 03: KB-11-MN        4.03      .577 No_date   28:00   41.89  n/a      .000
04499>            [MJSysSto=. 4277E+00,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04500> R0005: C00247-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04501>          ADD HYD                 1.0 02: KB-11-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04502>                            +     1.0 02: KB-11-MN        4.03      .577 No_date   28:00   41.89  n/a      .000
04503>                          SUM=    1.0 01: KB-11-S         4.03      .577 No_date   28:00   41.89  n/a      .000
04504> R0005: C00248-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04505>          CONTINUOUS STANDHYD     1.0 01: SI              4.99      .892 No_date   28:00   52.49 .919      .000
04506>            [XI M=. 93: TI M=. 93]
04507>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04508>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04509>            [Impervious     area: IAimp= 1. 57: SLPI=2. 00: LGI= 182. : MNI=. 013: SCI=     .0]
04510>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04511> R0005: C00249-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04512>          CONTINUOUS STANDHYD     1.0 01: KB-15           2.15      .321 No_date   28:00   47.49 .831      .000
04513>            [XI M=. 79: TI M=. 79]
04514>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04515>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04516>            [Impervious     area: IAimp=  .16: SLPI=  .30: LGI= 120. : MNI=. 013: SCI=     .0]
04517>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04518> R0005: C00250-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04519>          ADD HYD                 1.0 02: KB-01A-S       40.82     2.624 No_date   28:14   20.08  n/a      .000
04520>                            +     1.0 02: KB-01B-S       31.10     1.585 No_date   28:03   22.52  n/a      .000
04521>                            +     1.0 02: KB-01C-S       13.78     1.235 No_date   28:05   23.43  n/a      .000
04522>                            +     1.0 02: KB-03-S        84.78     5.270 No_date   28:03   23.12  n/a      .000
04523>                            +     1.0 02: KB-04-S         6.95      .503 No_date   27:48   49.78  n/a      .000
04524>                            +     1.0 02: KB-05           5.19      .855 No_date   28:00   52.49  n/a      .000
04525>                            +     1.0 02: KB-06-S        32.23     2.190 No_date   28:00   50.55  n/a      .000
04526>                            +     1.0 02: KB-11-S         4.03      .577 No_date   28:00   41.89  n/a      .000
04527>                            +     1.0 02: KB-15           2.15      .321 No_date   28:00   47.49  n/a      .000
04528>                            +     1.0 02: SI              4.99      .892 No_date   28:00   52.49  n/a      .000
04529>                          SUM=    1.0 01: KB-P1         206.72    14.564 No_date   28:02   27.13  n/a      .000
04530> R0005: C00251-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04531>          ROUTE RESERVOIR -->     1.0 02: KB-P1         206.72    14.564 No_date   28:02   27.13  n/a      .000
04532>                          out <=  1.0 01: KB-P1R        206.72    11.746 No_date   28:15   27.13  n/a      .000
04533>                          overflow<=  1.0 02: KB-P1ovf       .00      .000 No_date   0:00      .00  n/a      .000
04534>            [MkStoSked=. 5868E+00    m3,  Tot Orf Vol=. 0000E+00    m3,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04535> R0005: C00252-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04536>          ADD HYD                 1.0 02: KB-P1R        206.72    11.746 No_date   28:15   27.13  n/a      .000
04537>                            +     1.0 02: KB-P1ovf           .00      .000 No_date   0:00      .00  n/a      .000
04538>                          SUM=    1.0 01: KB-Pond1      206.72    11.746 No_date   28:15   27.13  n/a      .000
04539> R0005: C00253-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04540>          SAVE HYD                1.0 01: KB-Pond1      206.72    11.746 No_date   28:15   27.13  n/a      .000
04541>            fname: KB-Pond1. 0005
04542>            remark: Total Flows at KB first pond
04543> R0005: C00254-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04544>          CONTINUOUS STANDHYD     1.0 01: KB-07          10.86     1.770 No_date   28:00   50.11 .877      .000
04545>            [XI M=. 86: TI M=. 86]
04546>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04547>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04548>            [Impervious     area: IAimp=  .79: SLPI=2. 00: LGI= 269. : MNI=. 013: SCI=     .0]
04549>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04550> R0005: C00255-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04551>          COMPUTE DUALHYD         1.0 01: KB-07          10.86     1.770 No_date   28:00   50.11  n/a      .000
04552>            Major System    /     1.0 02: KB-07-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04553>            Minor System    \     1.0 03: KB-07-MN       10.86     1.770 No_date   28:00   50.11  n/a      .000
04554>            [MJSysSto=. 0000E+00,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04555> R0005: C00256-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04556>          ADD HYD                 1.0 02: KB-07-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04557>                            +     1.0 02: KB-07-MN       10.86     1.770 No_date   28:00   50.11  n/a      .000
04558>                          SUM=    1.0 01: KB-07-S        10.86     1.770 No_date   28:00   50.11  n/a      .000
04559> R0005: C00257-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04560>          CONTINUOUS STANDHYD     1.0 01: KB-08           6.61      .900 No_date   28:00   40.32 .706      .000
04561>            [XI M=. 64: TI M=. 64]
04562>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04563>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04564>            [Impervious     area: IAimp=  .79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=     .0]
04565>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04566> R0005: C00258-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04567>          COMPUTE DUALHYD         1.0 01: KB-08           6.61      .900 No_date   28:00   40.32  n/a      .000
04568>            Major System    /     1.0 02: KB-08-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04569>            Minor System    \     1.0 03: KB-08-MN        6.61      .900 No_date   28:00   40.32  n/a      .000
04570>            [MJSysSto=. 0000E+00,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04571> R0005: C00259-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04572>          ADD HYD                 1.0 02: KB-08-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04573>                            +     1.0 02: KB-08-MN        6.61      .900 No_date   28:00   40.32  n/a      .000
04574>                          SUM=    1.0 01: KB-08-S         6.61      .900 No_date   28:00   40.32  n/a      .000
04575> R0005: C00260-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04576>          CONTINUOUS STANDHYD     1.0 01: KB-09           2.60      .448 No_date   28:00   49.44 .865      .000
04577>            [XI M=. 86: TI M=. 86]
04578>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04579>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04580>            [Impervious     area: IAimp= 1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=     .0]
04581>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04582> R0005: C00261-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04583>          CONTINUOUS STANDHYD     1.0 01: KB-10_1         2.37      .409 No_date   28:00   49.44 .865      .000
04584>            [XI M=. 86: TI M=. 86]
04585>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04586>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04587>            [Impervious     area: IAimp= 1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=     .0]
04588>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04589> R0005: C00262-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04590>          CONTINUOUS STANDHYD     1.0 01: KB-10_2         1.14      .199 No_date   28:00   49.44 .865      .000
04591>            [XI M=. 86: TI M=. 86]
04592>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04593>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04594>            [Impervious     area: IAimp= 1. 57: SLPI=2. 00: LGI=  87. : MNI=. 013: SCI=     .0]
04595>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04596> R0005: C00263-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04597>          CONTINUOUS STANDHYD     1.0 01: KB-12           4.86      .777 No_date   28:00   46.75 .818      .000
04598>            [XI M=. 79: TI M=. 79]
04599>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04600>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04601>            [Impervious     area: IAimp= 1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=     .0]
04602>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04603> R0005: C00264-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04604>          COMPUTE DUALHYD         1.0 01: KB-12           4.86      .777 No_date   28:00   46.75  n/a      .000
04605>            Major System    /     1.0 02: KB-12-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04606>            Minor System    \     1.0 03: KB-12-MN        4.86      .777 No_date   28:00   46.75  n/a      .000
04607>            [MJSysSto=. 0000E+00,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04608> R0005: C00265-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04609>          ADD HYD                 1.0 02: KB-12-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04610>                            +     1.0 02: KB-12-MN        4.86      .777 No_date   28:00   46.75  n/a      .000
04611>                          SUM=    1.0 01: KB-12-S         4.86      .777 No_date   28:00   46.75  n/a      .000
04612> R0005: C00266-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04613>          CONTINUOUS STANDHYD     1.0 01: KB-13          10.19     1.364 No_date   28:00   40.32 .706      .000
04614>            [XI M=. 64: TI M=. 64]
04615>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04616>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04617>            [Impervious     area: IAimp=  .79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=     .0]
04618>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04619> R0005: C00267-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04620>          COMPUTE DUALHYD         1.0 01: KB-13          10.19     1.364 No_date   28:00   40.32  n/a      .000
04621>            Major System    /     1.0 02: KB-13-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04622>            Minor System    \     1.0 03: KB-13-MN       10.19     1.364 No_date   28:00   40.32  n/a      .000
04623>            [MJSysSto=. 0000E+00,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04624> R0005: C00268-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04625>          ADD HYD                 1.0 02: KB-13-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04626>                            +     1.0 02: KB-13-MN       10.19     1.364 No_date   28:00   40.32  n/a      .000
04627>                          SUM=    1.0 01: KB-13-S        10.19     1.364 No_date   28:00   40.32  n/a      .000
04628> R0005: C00269-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04629>          CONTINUOUS STANDHYD     1.0 01: KB-14           5.47      .756 No_date   28:00   40.32 .706      .000
04630>            [XI M=. 64: TI M=. 64]
04631>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04632>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04633>            [Impervious     area: IAimp=  .79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=     .0]
04634>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04635> R0005: C00270-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04636>          COMPUTE DUALHYD         1.0 01: KB-14           5.47      .756 No_date   28:00   40.32  n/a      .000
04637>            Major System    /     1.0 02: KB-14-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04638>            Minor System    \     1.0 03: KB-14-MN        5.47      .756 No_date   28:00   40.32  n/a      .000
04639>            [MJSysSto=. 0000E+00,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04640> R0005: C00271-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04641>          ADD HYD                 1.0 02: KB-14-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04642>                            +     1.0 02: KB-14-MN        5.47      .756 No_date   28:00   40.32  n/a      .000
04643>                          SUM=    1.0 01: KB-14-S         5.47      .756 No_date   28:00   40.32  n/a      .000
04644> R0005: C00272-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04645>          CONTINUOUS STANDHYD     1.0 01: KB-16_2         3.42      .462 No_date   28:01   43.88 .768      .000
04646>            [XI M=. 71: TI M=. 71]
04647>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04648>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04649>            [Impervious     area: IAimp=  .16: SLPI=  .30: LGI= 151. : MNI=. 013: SCI=     .0]
04650>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04651> R0005: C00273-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04652>          ADD HYD                 1.0 02: KB-Pond1      206.72    11.746 No_date   28:15   27.13  n/a      .000
04653>                            +     1.0 02: KB-07-S        10.86     1.770 No_date   28:00   50.11  n/a      .000
04654>                            +     1.0 02: KB-08-S         6.61      .900 No_date   28:00   40.32  n/a      .000
04655>                            +     1.0 02: KB-09           2.60      .448 No_date   28:00   49.44  n/a      .000
04656>                            +     1.0 02: KB-10_1         2.37      .409 No_date   28:00   49.43  n/a      .000
04657>                            +     1.0 02: KB-10_2         1.14      .199 No_date   28:00   49.44  n/a      .000
04658>                            +     1.0 02: KB-12-S         4.86      .777 No_date   28:00   46.75  n/a      .000
04659>                            +     1.0 02: KB-13-S        10.19     1.364 No_date   28:00   40.32  n/a      .000
04660>                            +     1.0 02: KB-14-S         5.47      .756 No_date   28:00   40.32  n/a      .000
04661>                            +     1.0 02: KB-16_2         3.42      .462 No_date   28:01   43.88  n/a      .000
04662>                          SUM=    1.0 01: KB-P2         254.24    16.750 No_date   28:01   30.40  n/a      .000
04663> R0005: C00274-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04664>          ROUTE RESERVOIR -->     1.0 02: KB-P2         254.24    16.750 No_date   28:01   30.40  n/a      .000
04665>                          out <=  1.0 01: KB-P2R        254.24    13.525 No_date   28:14   30.40  n/a      .000
04666>                          overflow<=  1.0 02: KB-P2ovf       .00      .000 No_date   0:00      .00  n/a      .000
04667>            [MkStoSked=. 6552E+00    m3,  Tot Orf Vol=. 0000E+00    m3,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04668> R0005: C00275-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04669>          ADD HYD                 1.0 02: KB-P2R        254.24    13.525 No_date   28:14   30.40  n/a      .000
04670>                            +     1.0 02: KB-P2ovf           .00      .000 No_date   0:00      .00  n/a      .000
04671>                          SUM=    1.0 01: KB-Pond2      254.24    13.525 No_date   28:14   30.40  n/a      .000
04672> R0005: C00276-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04673>          SAVE HYD                1.0 01: KB-Pond2      254.24    13.525 No_date   28:14   30.40  n/a      .000
04674>            fname: KB-Pond2. 0005
04675>            remark: Total Flows at KB second pond

04676> R0005: C00277-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04677>          CONTINUOUS STANDHYD     1.0 01: KB-16_1         2.80      .398 No_date   28:01   45.69 .800      .000
04678>            [XI M=. 75: TI M=. 75]
04679>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04680>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04681>            [Impervious     area: IAimp=  .16: SLPI=  .30: LGI= 137. : MNI=. 013: SCI=     .0]
04682>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04683> R0005: C00278-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04684>          ADD HYD                 1.0 02: KB-Pond2      254.24    13.525 No_date   28:14   30.40  n/a      .000
04685>                            +     1.0 02: KB-16_1         2.80      .398 No_date   28:01   45.69  n/a      .000
04686>                          SUM=    1.0 01: KB-P3         257.04    13.655 No_date   28:13   30.57  n/a      .000
04687> R0005: C00279-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04688>          ROUTE RESERVOIR -->     1.0 02: KB-P3         257.04    13.655 No_date   28:13   30.57  n/a      .000
04689>                          out <=  1.0 01: KB-P3R         14.18      .051 No_date   17:43   30.57  n/a      .000
04690>                          overflow<=  1.0 02: KB-P3ovf      242.86    13.603 No_date   28:13   30.57  n/a      .000
04691>            [MkStoSked=. 1998E-02    m3,  Tot Orf Vol=. 7424E+01    m3,  N-Orf=     2,  Tot Dur Orf=    23. hrs]
04692> R0005: C00280-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04693>          ADD HYD                 1.0 02: KB-P3R         14.18      .051 No_date   17:43   30.57  n/a      .000
04694>                            +     1.0 02: KB-P3ovf      242.86    13.603 No_date   28:13   30.57  n/a      .000
04695>                          SUM=    1.0 01: KB-Pond3      257.04    13.654 No_date   28:13   30.57  n/a      .000
04696> R0005: C00281-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04697>          SAVE HYD                1.0 01: KB-Pond3      257.04    13.654 No_date   28:13   30.57  n/a      .000
04698>            fname: KB-Pond3. 0005
04699>            remark: Total Flows at KB third pond
04700> #*************************************************************************
04701> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
04702> #     - To FRASER-CLARKE DRAIN
04703> #*************************************************************************
04704> R0005: C00282-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04705>          CONTINUOUS STANDHYD     1.0 01: FC-01           8.03      .865 No_date   28:01   32.39 .567      .000
04706>            [XI M=. 47: TI M=. 47]
04707>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04708>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04709>            [Impervious     area: IAimp= 1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=     .0]
04710>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04711> R0005: C00283-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04712>          COMPUTE DUALHYD         1.0 01: FC-01           8.03      .865 No_date   28:01   32.39  n/a      .000
04713>            Major System    /     1.0 02: FC-01-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04714>            Minor System    \     1.0 03: FC-01-MN        8.03      .756 No_date   27:58   32.40  n/a      .000
04715>            [MJSysSto=. 2912E+02,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04716> R0005: C00284-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04717>          ADD HYD                 1.0 02: FC-01-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04718>                            +     1.0 02: FC-01-MN        8.03      .756 No_date   27:58   32.40  n/a      .000
04719>                          SUM=    1.0 01: FC-01-S         8.03      .756 No_date   27:58   32.40  n/a      .000
04720> R0005: C00285-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04721>          CONTINUOUS STANDHYD     1.0 01: FC-02          16.05     2.547 No_date   28:01   52.49 .919      .000
04722>            [XI M=. 93: TI M=. 93]
04723>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04724>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04725>            [Impervious     area: IAimp= 1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=     .0]
04726>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04727> R0005: C00286-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04728>          COMPUTE DUALHYD         1.0 01: FC-02          16.05     2.547 No_date   28:01   52.49  n/a      .000
04729>            Major System    /     1.0 02: FC-02-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04730>            Minor System    \     1.0 03: FC-02-MN       16.05     1.159 No_date   27:47   52.68  n/a      .000
04731>            [MJSysSto=. 1011E+04,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04732> R0005: C00287-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04733>          ADD HYD                 1.0 02: FC-02-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04734>                            +     1.0 02: FC-02-MN       16.05     1.159 No_date   27:47   52.68  n/a      .000
04735>                          SUM=    1.0 01: FC-02-S        16.05     1.159 No_date   27:47   52.68  n/a      .000
04736> R0005: C00288-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04737>          CONTINUOUS STANDHYD     1.0 01: FC-03           7.37      .956 No_date   28:01   39.82 .697      .000
04738>            [XI M=. 64: TI M=. 64]
04739>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04740>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04741>            [Impervious     area: IAimp= 1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=     .0]
04742>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04743> R0005: C00289-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04744>          COMPUTE DUALHYD         1.0 01: FC-03           7.37      .956 No_date   28:01   39.82  n/a      .000
04745>            Major System    /     1.0 02: FC-03-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04746>            Minor System    \     1.0 03: FC-03-MN        7.37      .358 No_date   27:45   39.85  n/a      .000
04747>            [MJSysSto=. 4806E+03,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04748> R0005: C00290-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04749>          ADD HYD                 1.0 02: FC-03-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04750>                            +     1.0 02: FC-03-MN        7.37      .358 No_date   27:45   39.85  n/a      .000
04751>                          SUM=    1.0 01: FC-03-S         7.37      .358 No_date   27:45   39.85  n/a      .000
04752> R0005: C00291-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04753>          CONTINUOUS STANDHYD     1.0 01: FC-04          12.87     1.600 No_date   28:01   39.82 .697      .000
04754>            [XI M=. 64: TI M=. 64]
04755>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04756>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04757>            [Impervious     area: IAimp= 1. 57: SLPI=1. 00: LGI= 293. : MNI=. 013: SCI=     .0]
04758>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04759> R0005: C00292-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04760>          COMPUTE DUALHYD         1.0 01: FC-04          12.87     1.600 No_date   28:01   39.82  n/a      .000
04761>            Major System    /     1.0 02: FC-04-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04762>            Minor System    \     1.0 03: FC-04-MN       12.87      .741 No_date   27:48   39.85  n/a      .000
04763>            [MJSysSto=. 6277E+03,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04764> R0005: C00293-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04765>          ADD HYD                 1.0 02: FC-04-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04766>                            +     1.0 02: FC-04-MN       12.87      .741 No_date   27:48   39.85  n/a      .000
04767>                          SUM=    1.0 01: FC-04-S        12.87      .741 No_date   27:48   39.85  n/a      .000
04768> #*************************************************************************
04769> #     PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report June, 2020)
04770> #     - TO JOCK RIVER
04771> #*************************************************************************
04772> R0005: C00294-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04773>          CONTINUOUS STANDHYD     1.0 01: JR-01           8.24     1.064 No_date   28:01   39.82 .697      .000
04774>            [XI M=. 64: TI M=. 64]
04775>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04776>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04777>            [Impervious     area: IAimp= 1. 57: SLPI=1. 00: LGI= 234. : MNI=. 013: SCI=     .0]
04778>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04779> R0005: C00295-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04780>          COMPUTE DUALHYD         1.0 01: JR-01           8.24     1.064 No_date   28:01   39.82  n/a      .000
04781>            Major System    /     1.0 02: JR-01-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04782>            Minor System    \     1.0 03: JR-01-MN        8.24      .563 No_date   28:29   40.05  n/a      .000
04783>            [MJSysSto=. 3052E+03,  Tot Orf Vol=. 0000E+00,  N-Orf=     0,  Tot Dur Orf=     0. hrs]
04784> R0005: C00296-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04785>          ADD HYD                 1.0 02: JR-01-MJ          .00      .000 No_date   0:00      .00  n/a      .000
04786>                            +     1.0 02: JR-01-MN        8.24      .563 No_date   27:50   40.05  n/a      .000
04787>                          SUM=    1.0 01: JR-01-S         8.24      .563 No_date   27:50   40.05  n/a      .000
04788> R0005: C00297-------------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh: mm ---- RVmm R. C. --- DWFcms
04789>          CONTINUOUS STANDHYD     1.0 01: JR-02           1.59      .224 No_date   28:00   39.82 .697      .000
04790>            [XI M=. 64: TI M=. 64]
04791>            [Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=. 00]
04792>            [Pervious       area: IAper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=     .0]
04793>            [Impervious     area: IAimp= 1. 57: SLPI=1. 00: LGI= 103. : MNI=. 013: SCI=     .0]
04794>            [IaRECmp=   4. 00: IaRECper=    4. 00]
04795> R0005: C00298-------------- DTmin-I D: NHYD ---------- AREAha - QPEAK
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04863>        fname : SN_KB. 0005
04864>        remark: Total Flows before Station 3633
04865> # Hydrograph from Station 3633 to Node Todd
04866> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
04867> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
04868> #
04869> R0005: C00309-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04870>      ROUTE CHANNEL   ->      1. 0 02: SN_KB        54681.13    70. 342 No_date    38:13    18. 71   n/a      .000
04871>      [ RDT= 1. 00] out <-    1. 0 01: N_TO         54681.13    70. 065 No_date    36: 56   18. 71   n/a      .000
04872>      [ L/ S/ n=  608. / . 247/ . 035]
04873>      [ Vmx= 1. 451; Dmax= 1. 378]
04874> #*************************************************************************
04875> #     Catchment Greenbank
04876> #     - To Greenbank Drain (south of the Jock)
04877> #     - JFSA 2021-01-18 add Greenbank pond as per JFSA_ P598(06)-15, June 2016
04878> #     - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
04879> #*************************************************************************
04880> R0005: C00310-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04881>      CONTI NUOUS STANDHYD    1. 0 01: Greenbank     36. 60     3. 925 No_date    28: 02   42. 59   . 745      .000
04882>      [ XI M= 64: TI M= 68]
04883>      [ LOSS= 2 : CN= 77. 0]
04884>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04885>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=    . 0]
04886>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
04887>      [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
04888> R0005: C00311-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04889>      ROUTE RESERVOI R ->     1. 0 02: Greenbank     36. 60     3. 925 No_date    28: 02   42. 59   n/a      .000
04890>                      out <=  1. 0 01: GreenBrMN     36. 60     . 811 No_date     28: 35   42. 58   n/a      .000
04891>                overflow <=   1. 0 03: GreenBrMI        . 00       . 000 No_date    0: 00     . 00   n/a      .000
04892>      [ MxSt ol ked=. 7974E+00  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
04893> R0005: C00312-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04894>      ADD HYD                 1. 0 02: N_TO         54681.13    70. 065 No_date    36: 56   18. 71   n/a      .000
04895>                          +   1. 0 02: GreenBrMI        . 00       . 000 No_date    0: 00     . 00   n/a      .000
04896>                          +   1. 0 02: GreenBrMN     36. 60     . 811 No_date     28: 35   42. 58   n/a      .000
04897>                      SUM=    1. 0 01: GreenB       54717. 73    70. 171 No_date    36: 56   18. 73   n/a      .000
04898> R0005: C00313-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04899>      SAVE HYD                1. 0 01: GreenB       54717. 73    70. 171 No_date    36: 56   18. 73   n/a      .000
04900>        fname : GreenB. 0005
04901>        remark: Total Flows at Greenbank Drain
04902> #*************************************************************************
04903> #     Catchment TODD
04904> #     - To Todd Drain (south of the Jock)
04905> #     - Subdivision with 43% imp. as per Barrhaven South MSS
04906> #     - 2020-11-30 increase imp. based on P598(04)-11
04907> #     - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on P598(04)-11
04908> #     - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
04909> #*************************************************************************
04910> #     - JFSA 2021-01-19 add "TODD_MN" as part of Clarke("W_CLAR_M") and remove it from Todd
04911> R0005: C00314-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04912>      CONTI NUOUS STANDHYD    1. 0 01: TODD_MN2      2. 10      . 239 No_date    28: 00   38. 41   . 672      .000
04913>      [ XI M= 53: TI M= 57]
04914>      [ LOSS= 2 : CN= 77. 0]
04915>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04916>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=    . 0]
04917>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
04918>      [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
04919> R0005: C00315-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04920>      CONTI NUOUS STANDHYD    1. 0 01: TODD_MN3       . 12       . 014 No_date    28: 00   38. 39   . 672      .000
04921>      [ XI M= 53: TI M= 57]
04922>      [ LOSS= 2 : CN= 77. 0]
04923>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04924>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=    . 0]
04925>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
04926>      [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
04927> R0005: C00316-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04928>      CONTI NUOUS STANDHYD    1. 0 01: TODD_MJ       30. 23     2. 959 No_date    28: 02   39. 47   . 691      .000
04929>      [ XI M= 52: TI M= 64]
04930>      [ LOSS= 2 : CN= 77. 0]
04931>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04932>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=    . 0]
04933>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
04934>      [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
04935> R0005: C00317-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04936>      CONTI NUOUS STANDHYD    1. 0 01: TODD_ALL     112. 91     9. 069 No_date    28: 05   38. 19   . 669      .000
04937>      [ XI M= 52: TI M= 57]
04938>      [ LOSS= 2 : CN= 77. 0]
04939>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04940>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=    . 0]
04941>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
04942>      [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
04943> R0005: C00318-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04944>      CONTI NUOUS STANDHYD    1. 0 01: TODD_P        3. 06       . 385 No_date    28: 00   41. 58   . 728      .000
04945>      [ XI M= 63: TI M= 63]
04946>      [ LOSS= 2 : CN= 77. 0]
04947>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04948>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 143. : MNI=. 013: SCI=    . 0]
04949>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
04950>      [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
04951> # 5- Year + 12% Capture
04952> R0005: C00319-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04953>      ROUTE RESERVOI R ->     1. 0 02: TODD_MJ       30. 23     2. 959 No_date    28: 02   39. 47   n/a      .000
04954> *                    out <=  1. 0 01: TODD_MJn      30. 23     2. 959 No_date    28: 02   39. 47   n/a      .000
04955>                overflow <=   1. 0 03: TODD_MJj          . 00       . 000 No_date    0: 00     . 00   n/a      .000
04956>      [ MxSt ol ked=. 8948E- 04  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
04957> # 5- Year + 12% Capture
04958> R0005: C00320-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04959>      ROUTE RESERVOI R ->     1. 0 02: TODD_MN2      2. 10      . 239 No_date    28: 00   38. 41   n/a      .000
04960>                      out <=  1. 0 01: TODD_MNn      2. 10      . 238 No_date    28: 00   38. 41   n/a      .000
04961>                overflow <=   1. 0 03: TODD_MNj          . 00       . 000 No_date    0: 00     . 00   n/a      .000
04962>      [ MxSt ol ked=. 8965E- 04  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
04963> R0005: C00321-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04964>      ROUTE RESERVOI R ->     1. 0 02: TODD_MN3       . 12       . 014 No_date    28: 00   38. 39   n/a      .000
04965>                      out <=  1. 0 01: TODD_MNn      . 12       . 014 No_date    28: 00   38. 39   n/a      .000
04966>                overflow <=   1. 0 03: TODD_MNj          . 00       . 000 No_date    0: 00     . 00   n/a      .000
04967>      [ MxSt ol ked=. 8651E- 04  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
04968> R0005: C00322-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04969>      CONTI NUOUS STANDHYD    1. 0 01: A2           25. 50     1. 991 No_date    28: 03   34. 66   . 607      .000
04970>      [ XI M= 42: TI M= 52]
04971>      [ LOSS= 2 : CN= 75. 0]
04972>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
04973>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 566. : MNI=. 013: SCI=    . 0]
04974>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
04975>      [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
04976> R0005: C00323-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04977>      COMPUTE DUALHYD         1. 0 01: A2           25. 50     1. 991 No_date    28: 03   34. 66   n/a      .000
04978>        Major System    /     1. 0 02: A2- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
04979>        Mi nor System   \     1. 0 03: A2- MN       25. 50     1. 818 No_date    28: 00   34. 70   n/a      .000
04980>      [ MJ Sy St o=. 5163E+02,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
04981> R0005: C00324-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04982>      ADD HYD                 1. 0 02: TODD_MN2      2. 10      . 238 No_date    28: 00   38. 41   n/a      .000
04983>                          +   1. 0 02: TODD_MNn       . 12       . 014 No_date    28: 00   38. 39   n/a      .000
04984>                          +   1. 0 02: TODD_MJ          . 00       . 000 No_date    0: 00     . 00   n/a      .000
04985>                          +   1. 0 02: TODD_P        3. 06       . 385 No_date    28: 00   41. 58   n/a      .000
04986>                          +   1. 0 02: TODD_ALL     112. 91     9. 069 No_date    28: 05   38. 19   n/a      .000
04987>                          +   1. 0 02: W_CLAR_Mn      1. 77       . 192 No_date    28: 00   37. 36   n/a      .000
04988>                      SUM=    1. 0 01: TODD         119. 95     9. 538 No_date    28: 04   38. 27   n/a      .000
04989> R0005: C00325-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04990>      SAVE HYD                1. 0 01: TODD         119. 95     9. 538 No_date    28: 04   38. 27   n/a      .000
04991>        fname : TODD. 0005
04992>        remark: Total Flows at Todd Drain
04993> #*************************************************************************
04994> #     Todd Pond 3
04995> #     - Rating curve obtained from Barrhaven South MSS modeling
04996> #     - stantec 2007 Total Drainage Area to MSS Pond 3 = 193 ha
04997> #*************************************************************************
04998> R0005: C00326-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
04999>      ROUTE RESERVOI R ->     1. 0 02: TODD         119. 95     9. 538 No_date    28: 04   38. 27   n/a      .000
05000>                      out <=  1. 0 01: MS_P3        119. 95     3. 765 No_date    28: 29   38. 27   n/a      .000
05001>                overflow <=   1. 0 03: P3- OVF           . 00       . 000 No_date    0: 00     . 00   n/a      .000
05002>      [ MxSt ol ked=. 2351E+01  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
05003> R0005: C00327-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05004>      ADD HYD                 1. 0 02: GreenB       54717. 73    70. 171 No_date    36: 56   18. 73   n/a      .000
05005>                          +   1. 0 02: MS_P3        119. 95     3. 765 No_date    28: 29   38. 27   n/a      .000
05006>                          +   1. 0 02: P3- OVF           . 00       . 000 No_date    0: 00     . 00   n/a      .000
05007>                          +   1. 0 02: TODD_MNj          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05008>                          +   1. 0 02: A2- MI             . 00       . 000 No_date    0: 00     . 00   n/a      .000
05009>                      SUM=    1. 0 01: SN_TO        54837. 69    70. 373 No_date    36: 55   18. 77   n/a      .000
05010> R0005: C00328-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05011>      SAVE HYD                1. 0 01: SN_TO        54837. 69    70. 373 No_date    36: 55   18. 77   n/a      .000
05012>        fname : SN_TO. 0005
05013>        remark: Total Flows at Todd Drain
05014> #
05015> # Hydrograph from Todd Drain routed to Corrigan Drain
05016> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
05017> # 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so the model will be more stable and g
05018> R0005: C00329-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05019>      ROUTE CHANNEL   ->      1. 0 02: SN_TO        54837. 69    70. 373 No_date    36: 55   18. 77   n/a      .000
05020> *    [ RDT= 1. 00] out <-    1. 0 01: N_TO         54837. 69    70. 283 No_date    37: 09   18. 77   n/a      .000
05021>      [ L/ S/ n=  280. / . 050/ . 045]
05022>      [ Vmx=   827: Dmax= 2. 568]
05023> R0005: C00330-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05024>      SAVE HYD                1. 0 01: N_TO         54837. 69    70. 283 No_date    37: 09   18. 77   n/a      .000
05025>        fname : N_TO. 0005
05026>        remark: Total inflows at Station 2462
05027> #*************************************************************************
05028> #     Catchment CORRIG
05029> #     - To Corrigan Drain (south of the Jock)
05030> #     - Primarily Developed (medium density)
05031> #     - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
05032> #*************************************************************************
05033> R0005: C00331-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05034>      CONTI NUOUS STANDHYD    1. 0 01: corr1        15. 87     1. 806 No_date    28: 01   41. 58   . 728      .000
05035>      [ XI M= 63: TI M= 63]
05036>      [ LOSS= 2 : CN= 77. 0]
05037>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05038>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 325. : MNI=. 013: SCI=    . 0]
05039>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
05040>      [ SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
05041> R0005: C00332-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05042>      COMPUTE DUALHYD         1. 0 01: corr1        15. 87     1. 806 No_date    28: 01   41. 58   n/a      .000
05043>        Major System    /     1. 0 02: corr1- MI       . 00       . 000 No_date    0: 00     . 00   n/a      .000
05044>        Mi nor System   \     1. 0 03: corr1- MN    15. 87     1. 806 No_date    28: 01   41. 58   n/a      .000
05045>      [ MJ Sy St o=. 0000E+00,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
05046> R0005: C00333-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05047>      CONTI NUOUS NASHYD      1. 0 01: corr2        12. 47      . 161 No_date    29: 11   21. 69   . 380      .000
05048>        [ CN= 77. 0:  N= 3. 00:  Tp= 1. 10]
05049>        [ I aREC= 4. 00:  SMN= 31. 15:  SMX= 207. 66:  SK= . 010]
05050>        [ I nterEvent Time=   12. 00]
05051> R0005: C00334-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05052>      CONTI NUOUS STANDHYD    1. 0 01: Al- Corrig    15. 75     1. 357 No_date    28: 02   34. 66   . 607      .000
05053>      [ XI M= . 42: TI M= . 52]
05054>      [ LOSS= 2 : CN= 75. 0]
05055>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05056>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 324. : MNI=. 013: SCI=    . 0]
05057>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
05058>      [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
05059> R0005: C00335-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05060>      COMPUTE DUALHYD         1. 0 01: Al- Corrig    15. 75     1. 357 No_date    28: 02   34. 66   n/a      .000
05061>        Major System    /     1. 0 02: Al- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05062>        Mi nor System   \     1. 0 03: Al- MN       15. 75     1. 357 No_date    28: 02   34. 66   n/a      .000
05063>      [ MJ Sy St o=. 0000E+00,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
05064> R0005: C00336-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05065>      CONTI NUOUS NASHYD      1. 0 01: B1           2. 77      . 055 No_date    28: 09   13. 56   . 237      .000
05066>        [ CN= 56. 0:  N= 3. 00:  Tp=   . 23]
05067>        [ I aREC= 4. 00:  SMN= 79. 00:  SMX= 531. 24:  SK= . 010]
05068>        [ I nterEvent Time=   12. 00]
05069> R0005: C00337-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05070>      CONTI NUOUS STANDHYD    1. 0 01: A4           1. 27      . 153 No_date    28: 00   42. 00   . 735      .000
05071>      [ XI M= . 65: TI M= . 65]
05072>      [ LOSS= 2 : CN= 75. 0]
05073>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05074>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 253. : MNI=. 013: SCI=    . 0]
05075>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
05076>      [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
05077> R0005: C00338-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05078>      COMPUTE DUALHYD         1. 0 01: A4           1. 27      . 153 No_date    28: 00   42. 00   n/a      .000
05079>        Major System    /     1. 0 02: A4- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05080>        Mi nor System   \     1. 0 03: A4- MN       1. 27      . 153 No_date    28: 00   42. 00   n/a      .000
05081>      [ MJ Sy St o=. 0000E+00,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
05082> R0005: C00339-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05083>      ADD HYD                 1. 0 02: Al- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05084>                          +   1. 0 02: Al- MN       15. 75     1. 357 No_date    28: 02   34. 66   n/a      .000
05085>                          +   1. 0 02: corr1- MI        . 00       . 000 No_date    0: 00     . 00   n/a      .000
05086>                          +   1. 0 02: corr1- MN     15. 87     1. 806 No_date    28: 01   41. 58   n/a      .000
05087>                          +   1. 0 02: corr2       12. 47      . 161 No_date    29: 11   21. 69   n/a      .000
05088>                          +   1. 0 02: B1           2. 77      . 055 No_date    28: 09   13. 56   n/a      .000
05089>                          +   1. 0 02: A4- MN       1. 27      . 153 No_date    28: 00   42. 00   n/a      .000
05090>                      SUM=    1. 0 01: MH01         48. 13     3. 389 No_date    28: 01   32. 56   n/a      .000
05091> R0005: C00340-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05092>      SAVE HYD                1. 0 01: MH01         48. 13     3. 389 No_date    28: 01   32. 56   n/a      .000
05093>        fname : MH01. 0005
05094>        remark: Total Flows at MH01
05095> R0005: C00341-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05096>      ROUTE PI PE             ->      1. 0 02: MH01         48. 13     3. 389 No_date    28: 01   32. 56   n/a      .000
05097> *    [ RDT= 1. 00]  out <-    1. 0 01: 101- 102     48. 13     3. 277 No_date    28: 03   32. 56   n/a      .000
05098>      [ L/ S/ n=  368. / . 540/ . 013]
05099>      [ Vmx= 3. 010; Dmax= 1. 049]
05100>      [ Di n= 1. 05: Dused= 1. 28]
05101> R0005: C00342-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05102>      ADD HYD                 1. 0 02: A2- MN       25. 50     1. 818 No_date    28: 00   34. 70   n/a      .000
05103>                          +   1. 0 02: 101- 102     48. 13     3. 277 No_date    28: 03   32. 56   n/a      .000
05104>                      SUM=    1. 0 01: MH02         73. 63     5. 095 No_date    28: 03   33. 30   n/a      .000
05105> R0005: C00343-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05106>      SAVE HYD                1. 0 01: MH02         73. 63     5. 095 No_date    28: 03   33. 30   n/a      .000
05107>        fname : MH02. 0005
05108>        remark: Total Flows at MH02
05109> R0005: C00344-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05110>      CONTI NUOUS STANDHYD    1. 0 01: A5           1. 60      . 202 No_date    28: 01   44. 32   . 776      .000
05111>      [ XI M= . 71: TI M= . 71]
05112>      [ LOSS= 2 : CN= 75. 0]
05113>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05114>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 300. : MNI=. 013: SCI=    . 0]
05115>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
05116>      [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
05117> R0005: C00345-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05118>      ADD HYD                 1. 0 02: A4- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05119>                          +   1. 0 02: A5           1. 60      . 202 No_date    28: 01   44. 32   n/a      .000
05120>                      SUM=    1. 0 01: A5T          1. 60      . 202 No_date    28: 01   44. 32   n/a      .000
05121> R0005: C00346-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05122>      COMPUTE DUALHYD         1. 0 01: A5T          1. 60      . 202 No_date    28: 01   44. 32   n/a      .000
05123>        Major System    /     1. 0 02: A5- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05124>        Mi nor System   \     1. 0 03: A5- MN       1. 60      . 202 No_date    28: 01   44. 32   n/a      .000
05125>      [ MJ Sy St o=. 0000E+00,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
05126> R0005: C00347-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05127>      ROUTE PI PE             ->      1. 0 02: MH02         73. 63     5. 095 No_date    28: 03   33. 30   n/a      .000
05128> *    [ RDT= 1. 00]  out <-    1. 0 01: 102- 103     73. 63     4. 821 No_date    28: 05   33. 30   n/a      .000
05129>      [ L/ S/ n=  504. / . 280/ . 013]
05130>      [ Vmx= 2. 606; Dmax= 1. 382]
05131>      [ Di n= 1. 50: Dused= 1. 68]
05132> R0005: C00348-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05133>      ADD HYD                 1. 0 02: 102- 103     73. 63     4. 821 No_date    28: 05   33. 30   n/a      .000
05134>                          +   1. 0 02: A5- MN       1. 60      . 202 No_date    28: 01   44. 32   n/a      .000
05135>                      SUM=    1. 0 01: MH03         75. 23     4. 991 No_date    28: 04   33. 53   n/a      .000
05136> R0005: C00349-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05137>      SAVE HYD                1. 0 01: MH03         75. 23     4. 991 No_date    28: 04   33. 53   n/a      .000
05138>        fname : MH03. 0005
05139>        remark: Total Flows at MH03
05140> R0005: C00350-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05141>      ROUTE PI PE             ->      1. 0 02: MH03         75. 23     4. 991 No_date    28: 04   33. 53   n/a      .000
05142>      [ RDT= 1. 00]  out <-    1. 0 01: 103- 104     75. 23     4. 875 No_date    28: 06   33. 53   n/a      .000
05143>      [ L/ S/ n=  438. / . 460/ . 013]
05144>      [ Vmx= 3. 219; Dmax= 1. 124]
05145>      [ Di n= 1. 65: Dused= 1. 65]
05146> R0005: C00351-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05147>      CONTI NUOUS STANDHYD    1. 0 01: A6           1. 56      . 200 No_date    28: 01   44. 32   . 776      .000
05148>      [ XI M= . 71: TI M= . 71]
05149>      [ LOSS= 2 : CN= 75. 0]
05150>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05151>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 280. : MNI=. 013: SCI=    . 0]
05152>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
05153>      [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
05154> R0005: C00352-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05155>      ADD HYD                 1. 0 02: A5- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05156>                          +   1. 0 02: A6           1. 56      . 200 No_date    28: 01   44. 32   n/a      .000
05157>                      SUM=    1. 0 01: A6T          1. 56      . 200 No_date    28: 01   44. 32   n/a      .000
05158> R0005: C00353-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05159>      COMPUTE DUALHYD         1. 0 01: A6T          1. 56      . 200 No_date    28: 01   44. 32   n/a      .000
05160>        Major System    /     1. 0 02: A6- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05161>        Mi nor System   \     1. 0 03: A6- MN       1. 56      . 200 No_date    28: 01   44. 32   n/a      .000
05162>      [ MJ Sy St o=. 0000E+00,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
05163> R0005: C00354-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05164>      ADD HYD                 1. 0 02: A6- MN       1. 56      . 200 No_date    28: 01   44. 32   n/a      .000
05165>                          +   1. 0 02: 103- 104     75. 23     4. 875 No_date    28: 06   33. 53   n/a      .000
05166>                          +   1. 0 02: TODD_Mn      30. 23     2. 959 No_date    28: 02   39. 47   n/a      .000
05167>                      SUM=    1. 0 01: MH04        107. 02     7. 823 No_date    28: 04   35. 37   n/a      .000
05168> R0005: C00355-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05169>      SAVE HYD                1. 0 01: MH04        107. 02     7. 823 No_date    28: 04   35. 37   n/a      .000
05170>        fname : MH04. 0005
05171>        remark: Total Flows at MH04
05172> R0005: C00356-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05173>      CONTI NUOUS STANDHYD    1. 0 01: B2           12. 31     1. 023 No_date    28: 02   34. 82   . 610      .000
05174>      [ XI M= . 41: TI M= . 54]
05175>      [ LOSS= 2 : CN= 75. 0]
05176>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05177>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 417. : MNI=. 013: SCI=    . 0]
05178>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
05179>      [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
05180> R0005: C00357-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05181>      COMPUTE DUALHYD         1. 0 01: B2           12. 31     1. 023 No_date    28: 02   34. 82   n/a      .000
05182>        Major System    /     1. 0 02: B2- MI          . 00       . 000 No_date    0: 00     . 00   n/a      .000
05183>        Mi nor System   \     1. 0 03: B2- MN       12. 31     1. 023 No_date    28: 02   34. 82   n/a      .000
05184>      [ MJ Sy St o=. 0000E+00,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hrs]
05185> R0005: C00358-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05186>      ROUTE PI PE             ->      1. 0 02: B2- MN       12. 31     1. 023 No_date    28: 02   34. 82   n/a      .000
05187>      [ RDT= 1. 00]  out <-    1. 0 01: 315- 333     12. 31      . 941 No_date    28: 04   34. 82   n/a      .000
05188>      [ L/ S/ n=  254. / . 100/ . 013]
05189>      [ Vmx= 1. 219; Dmax=   . 834]
05190>      [ Di n= 1. 20: Dused= 1. 20]
05191> R0005: C00359-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05192>      CONTI NUOUS STANDHYD    1. 0 01: B3           5. 59      . 477 No_date    28: 02   34. 82   . 610      .000
05193>      [ XI M= . 41: TI M= . 54]
05194>      [ LOSS= 2 : CN= 75. 0]
05195>      [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05196>      [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 345. : MNI=. 013: SCI=    . 0]
05197>      [ I aREC mp=    4. 00: I aREC per=    4. 00]
05198>      [ SMN= 33. 81:  SMX= 225. 43:  SK= . 010]
05199> R0005: C00360-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----R
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05237>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05238> R0005: C00367- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05239>      COMPUTE DUALHYD          1. 0  01: B4              7. 60          . 638  No_date    28: 02    34. 82    n/ a          . 000
05240>        Major System   /       1. 0  02: B4- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05241>        Minor System   \       1. 0  03: B4- MN          7. 60          . 638  No_date    28: 02    34. 82    n/ a          . 000
05242>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05243> R0005: C00368- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05244>      ADD HYD                  1. 0  02: 338- 340        17. 90        1. 183  No_date    28: 06    34. 84    n/ a          . 000
05245>                          +    1. 0  02: B4- MN          7. 60          . 638  No_date    28: 02    34. 82    n/ a          . 000
05246>                        SUM=   1. 0  01: MH340          25. 50        1. 761  No_date    28: 05    34. 83    n/ a          . 000
05247> R0005: C00369- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05248>      SAVE HYD                 1. 0  01: MH340          25. 50        1. 761  No_date    28: 05    34. 83    n/ a          . 000
05249>        fname : MH340. 0005
05250>        remark: Total Flows at MH340
05251> R0005: C00370- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05252>      ROUTE PIPE               - >     1. 0  02: MH340          25. 50        1. 761  No_date    28: 05    34. 83    n/ a          . 000
05253>        [ RDT= 1. 00]  out <-          1. 0  01: 340- 104       25. 50        1. 698  No_date    28: 06    34. 83    n/ a          . 000
05254>        [ L/ S/ n=  . 240 /  . 150/ . 013]
05255>        [ Vmax= 1. 648: Dmax=  . 823]
05256>        [ Di n= 1. 65: Dused= 1. 65]
05257> R0005: C00371- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05258>      ADD HYD                  1. 0  02: 340- 104       25. 50        1. 698  No_date    28: 06    34. 83    n/ a          . 000
05259>                          +    1. 0  02: MH104         107. 02       7. 823  No_date    28: 04    35. 37    n/ a          . 000
05260>                        SUM=   1. 0  01: MH104T        132. 52       9. 463  No_date    28: 04    35. 27    n/ a          . 000
05261> R0005: C00372- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05262>      ROUTE PIPE               - >     1. 0  02: MH104T       132. 52       9. 463  No_date    28: 04    35. 27    n/ a          . 000
05263> *    [ RDT= 1. 00]  out <-          1. 0  01: 104- 105       132. 52       8. 848  No_date    28: 06    35. 27    n/ a          . 000
05264>        [ L/ S/ n=  . 380 /  . 100/ . 013]
05265>        [ Vmax= 2. 012: Dmax=  1. 868]
05266>        [ HGT H= 2. 20: WTH= 2. 52]
05267> R0005: C00373- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05268>      CONTI NUOUS STANDHYD     1. 0  01: B5              2. 20          . 248  No_date    28: 00    38. 90  . 681          . 000
05269>        [ XI M= 57: TI MP= 57]
05270>        [ LOSS= 2 : CN= 75. 0]
05271>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05272>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  187. : MNI=. 013: SCI =   . 0]
05273>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05274>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05275> R0005: C00374- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05276>      COMPUTE DUALHYD          1. 0  01: B5              2. 20          . 248  No_date    28: 00    38. 90    n/ a          . 000
05277>        Major System   /       1. 0  02: B5- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05278>        Minor System   \       1. 0  03: B5- MN          2. 20          . 248  No_date    28: 00    38. 90    n/ a          . 000
05279>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05280> R0005: C00375- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05281>      CONTI NUOUS STANDHYD     1. 0  01: A8              . 96          . 130  No_date    28: 00    44. 32  . 776          . 000
05282>        [ XI M= 71: TI MP= 71]
05283>        [ LOSS= 2 : CN= 75. 0]
05284>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05285>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  186. : MNI=. 013: SCI =   . 0]
05286>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05287>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05288> R0005: C00376- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05289>      ADD HYD                  1. 0  02: A6- MI           . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05290>                          +    1. 0  02: A8              . 96          . 130  No_date    28: 00    44. 32    n/ a          . 000
05291>                        SUM=   1. 0  01: A8T             . 96          . 130  No_date    28: 00    44. 32    n/ a          . 000
05292> R0005: C00377- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05293>      COMPUTE DUALHYD          1. 0  01: A8T             . 96          . 130  No_date    28: 00    44. 32    n/ a          . 000
05294>        Major System   /       1. 0  02: A8- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05295>        Minor System   \       1. 0  03: A8- MN          . 96          . 130  No_date    28: 00    44. 32    n/ a          . 000
05296>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05297> R0005: C00378- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05298>      ADD HYD                  1. 0  02: 104- 105       132. 52       8. 848  No_date    28: 06    35. 27    n/ a          . 000
05299>                          +    1. 0  02: B5- MN          2. 20          . 248  No_date    28: 00    38. 90    n/ a          . 000
05300>                          +    1. 0  02: A8- MN          . 96          . 130  No_date    28: 00    44. 32    n/ a          . 000
05301>                          +    1. 0  02: TODD_MSj        . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05302>                        SUM=   1. 0  01: MH105         135. 68       9. 064  No_date    28: 05    35. 39    n/ a          . 000
05303> R0005: C00379- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05304>      SAVE HYD                 1. 0  01: MH105         135. 68       9. 064  No_date    28: 05    35. 39    n/ a          . 000
05305>        fname : MH105. 0005
05306>        remark: Total Flows at MH105
05307> R0005: C00380- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05308> *    DI VERT HYD              - >     1. 0  01: A8- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05309>          di verted <=          1. 0  02: A8- MI- JR         . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05310>          di verted <=          1. 0  03: A8- MI- B6         . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05311> R0005: C00381- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05312>      DI VERT HYD              - >     1. 0  01: MH105         135. 68       9. 064  No_date    28: 05    35. 39    n/ a          . 000
05313>          di verted <=          1. 0  02: MH105- JR         25. 07        6. 058  No_date    28: 05    35. 39    n/ a          . 000
05314>          di verted <=          1. 0  03: MH105- B6         110. 61       3. 006  No_date    28: 05    35. 39    n/ a          . 000
05315> R0005: C00382- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05316>      CONTI NUOUS STANDHYD     1. 0  01: B7              7. 19          . 661  No_date    28: 01    34. 82  . 610          . 000
05317>        [ XI M= . 41: TI MP= . 54]
05318>        [ LOSS= 2 : CN= 75. 0]
05319>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05320>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  211. : MNI=. 013: SCI =   . 0]
05321>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05322>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05323> R0005: C00383- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05324>      ADD HYD                  1. 0  02: B4- MI           . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05325>                          +    1. 0  02: B7              7. 19          . 661  No_date    28: 01    34. 82    n/ a          . 000
05326>                        SUM=   1. 0  01: B7- B4M         7. 19          . 661  No_date    28: 01    34. 82    n/ a          . 000
05327> R0005: C00384- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05328>      COMPUTE DUALHYD          1. 0  01: B7              7. 19          . 661  No_date    28: 01    34. 82    n/ a          . 000
05329>        Major System   /       1. 0  02: B7R- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05330>        Minor System   \       1. 0  03: B7R- MN          7. 19          . 629  No_date    27: 59    34. 89    n/ a          . 000
05331>        [ MJ Sys St o=. 5005E+01,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05332> R0005: C00385- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05333>      ROUTE PIPE               - >     1. 0  02: B7R- MN          7. 19          . 629  No_date    27: 59    34. 89    n/ a          . 000
05334>        [ RDT= 1. 00]  out <-          1. 0  01: 360- 106A      7. 19          . 615  No_date    28: 05    34. 89    n/ a          . 000
05335>        [ L/ S/ n=  . 167 /  . 100/ . 013]
05336>        [ Vmax= 1. 089: Dmax=  . 665]
05337>        [ Di n= 1. 05: Dused= 1. 05]
05338> R0005: C00386- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05339>      CONTI NUOUS STANDHYD     1. 0  01: B6              3. 29          . 315  No_date    28: 00    34. 82  . 610          . 000
05340>        [ XI M= . 41: TI MP= . 54]
05341>        [ LOSS= 2 : CN= 75. 0]
05342>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05343>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  148. : MNI=. 013: SCI =   . 0]
05344>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05345>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05346> R0005: C00387- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05347>      COMPUTE DUALHYD          1. 0  01: B6              3. 29          . 315  No_date    28: 00    34. 82    n/ a          . 000
05348>        Major System   /       1. 0  02: B6- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05349>        Minor System   \       1. 0  03: B6- MN          3. 29          . 064  No_date    27: 39    34. 87    n/ a          . 000
05350>        [ MJ Sys St o=. 2841E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05351> R0005: C00388- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05352>      CONTI NUOUS STANDHYD     1. 0  01: EX- LAND        32. 50        2. 843  No_date    28: 02    35. 73  . 626          . 000
05353>        [ XI M= . 50: TI MP= . 50]
05354>        [ LOSS= 2 : CN= 74. 0]
05355>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05356>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  465. : MNI=. 013: SCI =   . 0]
05357>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05358>        [ SM N= 36. 67:  SMX=244. 49:  SK= .010]
05359> R0005: C00389- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05360>      COMPUTE DUALHYD          1. 0  01: EX- LAND        32. 50        2. 843  No_date    28: 02    35. 73    n/ a          . 000
05361>        Major System   /       1. 0  02: EX- LAND- MI     . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05362>        Minor System   \       1. 0  03: EX- LAND- MN     32. 50        2. 275  No_date    27: 57    35. 73    n/ a          . 000
05363>        [ MJ Sys St o=. 2310E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05364> R0005: C00390- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05365>      ADD HYD                  1. 0  02: B7R- MI           . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05366>                          +    1. 0  02: EX- LAND- MI     . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05367>                          +    1. 0  02: B5- MI           . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05368>                          +    1. 0  02: B6- MI           . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05369>                          +    1. 0  02: B6- MN          3. 29          . 064  No_date    27: 39    34. 87    n/ a          . 000
05370>                          +    1. 0  02: A8- MI- B6       . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05371>                        SUM=   1. 0  01: B6- B7ExMI      3. 29          . 064  No_date    27: 39    34. 87    n/ a          . 000
05372> R0005: C00391- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05373>      COMPUTE DUALHYD          1. 0  01: B6- B7ExMI      3. 29          . 064  No_date    27: 39    34. 87    n/ a          . 000
05374>        Major System   /       1. 0  02: B6R- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05375>        Minor System   \       1. 0  03: B6R- MN          3. 29          . 064  No_date    27: 39    34. 87    n/ a          . 000
05376>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05377> R0005: C00392- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05378>      ROUTE PIPE               - >     1. 0  02: MH105- B6      110. 61       3. 006  No_date    28: 05    35. 39    n/ a          . 000
05379>        [ RDT= 1. 00]  out <-          1. 0  01: 105- 106A      110. 61       3. 005  No_date    28: 08    35. 39    n/ a          . 000
05380>        [ L/ S/ n=  . 208 /  . 100/ . 013]
05381>        [ Vmax= 1. 597: Dmax=  1. 248]
05382>        [ Di n= 1. 80: Dused= 1. 80]
05383> R0005: C00393- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05384>      ADD HYD                  1. 0  02: 360- 106A        7. 19          . 615  No_date    28: 05    34. 89    n/ a          . 000
05385>                          +    1. 0  02: 105- 106A      110. 61       3. 005  No_date    28: 08    35. 39    n/ a          . 000
05386>                          +    1. 0  02: B6R- MN          3. 29          . 064  No_date    27: 39    34. 87    n/ a          . 000
05387>                          +    1. 0  02: B6R- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05388>                        SUM=   1. 0  01: MH106A        121. 09       3. 682  No_date    28: 05    35. 35    n/ a          . 000
05389> R0005: C00394- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05390>      SAVE HYD                 1. 0  01: MH106A        121. 09       3. 682  No_date    28: 05    35. 35    n/ a          . 000
05391>        fname : MH106A. 0005
05392>        remark: Total Flows at MH106A
05393> R0005: C00395- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05394>      ROUTE PIPE               - >     1. 0  02: MH106A        121. 09       3. 682  No_date    28: 05    35. 35    n/ a          . 000
05395> *    [ RDT= 1. 00]  out <-          1. 0  01: 106A- 106      121. 09       3. 651  No_date    28: 05    35. 35    n/ a          . 000
05396>        [ L/ S/ n=  . 190 /  . 100/ . 013]
05397>        [ Vmax= 1. 633: Dmax=  1. 484]
05398>        [ Di n= 1. 80: Dused= 1. 81]
05399> R0005: C00396- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05400>      CONTI NUOUS STANDHYD     1. 0  01: A9              2. 44          . 316  No_date    28: 00    44. 32  . 776          . 000
05401>        [ XI M= . 71: TI MP= . 71]
05402>        [ LOSS= 2 : CN= 75. 0]
05403>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05404>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  262. : MNI=. 013: SCI =   . 0]
05405>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05406>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05407> R0005: C00397- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05408>      COMPUTE DUALHYD          1. 0  01: A9              2. 44          . 316  No_date    28: 00    44. 32    n/ a          . 000
05409>        Major System   /       1. 0  02: A9- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05410>        Minor System   \       1. 0  03: A9- MN          2. 44          . 316  No_date    28: 00    44. 32    n/ a          . 000
05411> R0005: C00398- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05412>      ADD HYD                  1. 0  02: 106A- 106       121. 09       3. 651  No_date    28: 05    35. 35    n/ a          . 000
05413>                          +    1. 0  02: A9- MN          2. 44          . 316  No_date    28: 00    44. 32    n/ a          . 000
05414>                        SUM=   1. 0  01: MH106         123. 53       3. 896  No_date    28: 03    35. 52    n/ a          . 000
05415> R0005: C00399- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05416>      SAVE HYD                 1. 0  01: MH106         123. 53       3. 896  No_date    28: 03    35. 52    n/ a          . 000
05417>        fname : MH106. 0005
05418>        remark: Total Flows at MH106
05419> R0005: C00400- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05420>      ROUTE PIPE               - >     1. 0  02: MH106         123. 53       3. 896  No_date    28: 03    35. 52    n/ a          . 000
05421> *    [ RDT= 1. 00]  out <-          1. 0  01: 106- 107       123. 53       3. 814  No_date    28: 07    35. 52    n/ a          . 000
05422>        [ L/ S/ n=  . 123 /  . 100/ . 013]
05423>        [ Vmax= 1. 656: Dmax=  1. 516]
05424>        [ Di n= 1. 80: Dused= 1. 85]
05425> R0005: C00401- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05426>      CONTI NUOUS STANDHYD     1. 0  01: A10             4. 14          . 345  No_date    28: 01    32. 29  . 565          . 000
05427>        [ XI M= . 35: TI MP= . 47]
05428>        [ LOSS= 2 : CN= 75. 0]
05429>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05430>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  183. : MNI=. 013: SCI =   . 0]
05431>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05432>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05433> R0005: C00402- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05434>      COMPUTE DUALHYD          1. 0  01: A10             4. 14          . 345  No_date    28: 01    32. 29    n/ a          . 000
05435>        Major System   /       1. 0  02: A10- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05436>        Minor System   \       1. 0  03: A10- MN          4. 14          . 310  No_date    27: 58    32. 34    n/ a          . 000
05437>        [ MJ Sys St o=. 7677E+01,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05438> R0005: C00403- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05439>      CONTI NUOUS STANDHYD     1. 0  01: A11            10. 61          1. 053  No_date    28: 02    38. 79  . 679          . 000
05440>        [ XI M= . 53: TI MP= . 62]
05441>        [ LOSS= 2 : CN= 75. 0]
05442>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05443>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  379. : MNI=. 013: SCI =   . 0]
05444>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05445>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05446> R0005: C00404- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05447>      COMPUTE DUALHYD          1. 0  01: A11            10. 61          1. 053  No_date    28: 02    38. 79    n/ a          . 000
05448>        Major System   /       1. 0  02: A11- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05449>        Minor System   \       1. 0  03: A11- MN         10. 61          . 993  No_date    28: 00    38. 82    n/ a          . 000
05450>        [ MJ Sys St o=. 1280E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05451> R0005: C00405- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05452>      ADD HYD                  1. 0  02: 106- 107       123. 53       3. 814  No_date    28: 07    35. 52    n/ a          . 000
05453>                          +    1. 0  02: A10- MN          4. 14          . 310  No_date    27: 58    32. 34    n/ a          . 000
05454>                          +    1. 0  02: A11- MN         10. 61          . 993  No_date    28: 00    38. 82    n/ a          . 000
05455>                        SUM=   1. 0  01: MH107         138. 28       5. 112  No_date    28: 06    35. 68    n/ a          . 000
05456> R0005: C00406- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05457>      SAVE HYD                 1. 0  01: MH107         138. 28       5. 112  No_date    28: 06    35. 68    n/ a          . 000
05458>        fname : MH107. 0005
05459>        remark: Total Flows at MH107
05460> R0005: C00407- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05461>      ROUTE PIPE               - >     1. 0  02: MH107         138. 28       5. 112  No_date    28: 06    35. 68    n/ a          . 000
05462> *    [ RDT= 1. 00]  out <-          1. 0  01: 107- 119       138. 28       5. 061  No_date    28: 07    35. 68    n/ a          . 000
05463>        [ L/ S/ n=  . 114 /  . 120/ . 013]
05464>        [ Vmax= 1. 898: Dmax=  1. 622]
05465>        [ Di n= 1. 80: Dused= 1. 98]
05466> R0005: C00408- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05467>      ROUTE PIPE               - >     1. 0  02: 107- 119       138. 28       5. 061  No_date    28: 07    35. 68    n/ a          . 000
05468> *    [ RDT= 1. 00]  out <-          1. 0  01: 119- 108       138. 28       5. 009  No_date    28: 07    35. 68    n/ a          . 000
05469>        [ L/ S/ n=  . 66 /  . 120/ . 013]
05470>        [ Vmax= 1. 893: Dmax=  1. 616]
05471>        [ Di n= 1. 80: Dused= 1. 97]
05472> R0005: C00409- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05473>      CONTI NUOUS STANDHYD     1. 0  01: A12             12. 29          1. 145  No_date    28: 00    34. 82  . 610          . 000
05474>        [ XI M= . 41: TI MP= . 54]
05475>        [ LOSS= 2 : CN= 75. 0]
05476>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05477>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  183. : MNI=. 013: SCI =   . 0]
05478>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05479>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05480> R0005: C00410- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05481>      COMPUTE DUALHYD          1. 0  01: A12             12. 29          1. 145  No_date    28: 00    34. 82    n/ a          . 000
05482>        Major System   /       1. 0  02: A12- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05483>        Minor System   \       1. 0  03: A12- MN         12. 29          1. 029  No_date    27: 57    34. 93    n/ a          . 000
05484>        [ MJ Sys St o=. 2567E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
05485> R0005: C00411- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05486>      CONTI NUOUS STANDHYD     1. 0  01: A13              2. 59          . 312  No_date    28: 01    44. 32  . 776          . 000
05487>        [ XI M= . 71: TI MP= . 71]
05488>        [ LOSS= 2 : CN= 75. 0]
05489>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05490>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  379. : MNI=. 013: SCI =   . 0]
05491>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05492>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05493> R0005: C00412- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05494>      COMPUTE DUALHYD          1. 0  01: A13              2. 59          . 312  No_date    28: 01    44. 32    n/ a          . 000
05495>        Major System   /       1. 0  02: A13- MI          . 00          . 000  No_date    0: 00      . 00    n/ a          . 000
05496>        Minor System   \       1. 0  03: A13- MN          2. 59          . 312  No_date    28: 01    44. 32    n/ a          . 000
05497> R0005: C00413- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05498>      CONTI NUOUS STANDHYD     1. 0  01: Pond- Block       2. 94          . 261  No_date    28: 00    32. 90  . 576          . 000
05499>        [ XI M= . 41: TI MP= . 41]
05500>        [ LOSS= 2 : CN= 75. 0]
05501>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
05502>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI =  183. : MNI=. 013: SCI =   . 0]
05503>        [ I a REC i mp=   4. 00:  I a REC per=    4. 00]
05504>        [ SM N= 33. 81:  SMX=225. 43:  SK= .010]
05505> R0005: C00414- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05506>      ADD HYD                  1. 0  02: 119- 108       138. 28       5. 009  No_date    28: 07    35. 68    n/ a          . 000
05507>                          +    1. 0  02: A13- MN          2. 59          . 312  No_date    28: 01    44. 32    n/ a          . 000
05508>                          +    1. 0  02: A12- MN         12. 29          1. 029  No_date    27: 57    34. 93    n/ a          . 000
05509>                        SUM=   1. 0  01: MH108         153. 16       6. 257  No_date    28: 01    35. 77    n/ a          . 000
05510> R0005: C00415- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05511>      SAVE HYD                 1. 0  01: MH108         153. 16       6. 257  No_date    28: 01    35. 77    n/ a          . 000
05512>        fname : MH108. 0005
05513>        remark: Total Flows at MH108
05514> R0005: C00416- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05515>      ROUTE PIPE               - >     1. 0  02: MH108         153. 16       6. 257  No_date    28: 01    35. 77    n/ a          . 000
05516> *    [ RDT= 1. 00]  out <-          1. 0  01: 108- 116       153. 16       6. 250  No_date    28: 02    35. 77    n/ a          . 000
05517>        [ L/ S/ n=  . 77 /  . 130/ . 013]
05518>        [ Vmax= 2. 057: Dmax=  1. 724]
05519>        [ Di n= 1. 80: Dused= 2. 10]
05520> R0005: C00417- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05521>      ROUTE PIPE               - >     1. 0  02: 108- 116       153. 16       6. 250  No_date    28: 02    35. 77    n/ a          . 000
05522> *    [ RDT= 1. 00]  out <-          1. 0  01: 116- corrig    153. 16       6. 248  No_date    28: 07    35. 77    n/ a          . 000
05523>        [ L/ S/ n=  . 80 /  . 130/ . 013]
05524>        [ Vmax= 2. 057: Dmax=  1. 723]
05525>        [ Di n= 1. 80: Dused= 2. 10]
05526> R0005: C00418- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05527>      ADD HYD                  1. 0  02: 116- corrig    153. 16       6. 248  No_date    28: 07    35. 77    n/ a          . 000
05528>                          +    1. 0  02: Pond- Block      2. 94          . 261  No_date    28: 00    32. 90    n/ a          . 000
05529>                        SUM=   1. 0  01: Corrigan        156. 10       6. 442  No_date    28: 02    35. 71    n/ a          . 000
05530> R0005: C00419- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05531>      SAVE HYD                 1. 0  01: Corrigan        156. 10       6. 442  No_date    28: 02    35. 71    n/ a          . 000
05532>        fname : Corrigan. 0005
05533>        remark: HYD_COMMENT=[ "Total Flows at Corrigan Pond]
05534> R0005: C00420- ---------- DTm n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_hh: mm- - - - RVmm R. C. - - - DWF cms
05535>      ROUTE RESERVOIR  - >     1. 0  02: Corrigan        156. 10       6. 442  No_date    28: 02    35. 71    n/ a          . 000
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05611> #     - To Jock River (north of the Jock)
05612> #     - Rural-estate subdivision (Heart's Desire Community)
05613> #**************************************************************************
05614> R0005: C00429-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05615>       CONTINUOUS STANDHYD      1.0 01: DESIRE          23.78     1.359 No_date    28:03    27.22 .477     .000
05616>         [ XIMP=.25: TIMP=.25]
05617>         [ LOSS= 2 : CN= 77.0]
05618>         [ Pervious      area: IAper= 4.67: SLPP=1.00: LGP=   40. : MNP=.250: SCP=    .0]
05619>         [ Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 400. : MNI=.013: SCI=    .0]
05620>         [ IaRECmp=    4.00: IaRECper=    4.00]
05621>         [ SMN= 31.15: SMX=207.66: SK= .010]
05622> #**************************************************************************
05623> #     Catchment JOCKVA
05624> #     - To Jockvale SWM Facility
05625> #     - Residential development & golf course
05626> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
05627> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
05628> #**************************************************************************
05629> R0005: C00430-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05630>       CONTINUOUS STANDHYD      1.0 01: JOCKVA          225.13    14.675 No_date    28:09    35.73 .626     .000
05631>         [ XIMP=.50: TIMP=.50]
05632>         [ LOSS= 2 : CN= 74.0]
05633>         [ Pervious      area: IAper= 4.67: SLPP=1.00: LGP=   40. : MNP=.250: SCP=    .0]
05634>         [ Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1311. : MNI=.013: SCI=    .0]
05635>         [ IaRECmp=    4.00: IaRECper=    4.00]
05636>         [ SMN= 36.67: SMX=244.49: SK= .010]
05637> R0005: C00431-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05638>       ADD HYD                 1.0 02: EX-LAND-MN      32.50     2.275 No_date    27:57    35.73  n/a     .000
05639>                           +     1.0 02: JOCKVA        225.13    14.675 No_date    28:09    35.73  n/a     .000
05640>                           +     1.0 02: B2-M            .00      .000 No_date     0:00      .00  n/a     .000
05641>                           +     1.0 02: B3-MI           .00      .000 No_date     0:00      .00  n/a     .000
05642>                         SUM=    1.0 01: JOCKVA-TO     257.63    16.950 No_date    28:09    35.73  n/a     .000
05643> R0005: C00432-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05644>       SAVE HYD                1.0 01: JOCKVA-TO       257.63    16.950 No_date    28:09    35.73  n/a     .000
05645>         fname: JOCKVA-TO.0005
05646>         remark: Total Flows at  KB first pond
05647> #**************************************************************************
05648> #     Jockvale SWM Facility
05649> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
05650> #**************************************************************************
05651> R0005: C00433-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05652>       ROUTE RESERVOIR -->     1.0 02: JOCKVA-TO       257.63    16.950 No_date    28:09    35.73  n/a     .000
05653>                       out <=    1.0 01: JOCK_P        257.63     4.781 No_date    28:48    35.73  n/a     .000
05654>                  overflow <=    1.0 03: JO-OVF            .00      .000 No_date     0:00      .00  n/a     .000
05655>         [MxStoDecde= 4115E+01  m3, TotOrVol= 0000E+00  m3, N-Or f=    0, TotDurOf=    0.hrs]
05656> R0005: C00434-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05657>       ADD HYD                 1.0 02: N_DE          55194.85    70.846 No_date    37:22    18.87  n/a     .000
05658>                           +     1.0 02: DESIRE         23.78     1.359 No_date    28:03    27.22  n/a     .000
05659>                           +     1.0 02: JO-OVF            .00      .000 No_date     0:00      .00  n/a     .000
05660>                           +     1.0 02: JOCK_P         257.63     4.781 No_date    28:48    35.73  n/a     .000
05661>                         SUM=    1.0 01: SN_DE         55476.26    71.408 No_date    37:19    18.95  n/a     .000
05662> R0005: C00435-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05663>       SAVE HYD                1.0 01: SN_DE         55476.26    71.408 No_date    37:19    18.95  n/a     .000
05664>         fname: SN_DE.0005
05665>         remark: Total Flows at Heart's Desire
05666> #
05667> # Hydrograph from Heart's Desire routed to Rideau River
05668> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
05669> #
05670> R0005: C00436-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05671>       ROUTE CHANNEL    -->    1.0 02: SN_DE         55476.26    71.408 No_date    37:19    18.95  n/a     .000
05672>         [ RDT= 1.00] out <-     1.0 01: N1            55476.26    71.403 No_date    37:23    18.95  n/a     .000
05673>         [ L/ S/ n=  563./ .967/ .045]
05674>         [ Vmx= 1.679: Dmx=  .957]
05675> #**************************************************************************
05676> #     Catchment S-2
05677> #     - To Jock River (north and south)
05678> #     - Undeveloped floodplain and river
05679> #**************************************************************************
05680> R0005: C00437-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05681>       CONTINUOUS NASHYD       1.0 01: S-2             102.94     2.262 No_date    28:20    19.00 .333     .000
05682>         [ CN= 72.0: N= 3.00: Tp=  .40]
05683>         [ IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
05684>         [ InterEventTime=  12.00]
05685> R0005: C00438-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05686>       ADD HYD                 1.0 02: N1            55476.26    71.403 No_date    37:23    18.95  n/a     .000
05687>                           +     1.0 02: S-2             102.94     2.262 No_date    28:20    19.00  n/a     .000
05688>                         SUM=    1.0 01: SN_N1         55579.20    71.539 No_date    37:23    18.95  n/a     .000
05689> R0005: C00439-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05690>       SAVE HYD                1.0 01: SN_N1         55579.20    71.539 No_date    37:23    18.95  n/a     .000
05691>         fname: SN_N1.0005
05692>         remark: Total Flows at Rideau River
05693> ##########################################################################
05694>     ** END OF RUN :     9
05695>
05696> ************************************************************************************************************
05697>
05698>
05699>
05700>
05701>
05702>  RUN#: COMMAND#
05703> R0010: C00001-------------------------------------------------------------------------------------------
05704>       START
05705>         [ TZERO =      .00 hrs on        0]
05706>         [ METOUT=    2    (1=imperial, 2=metric output)]
05707>         [ NSTORM=    1 ]
05708>         [ NRUN  = 0010 ]
05709> #**************************************************************************
05710> #   SWMHYMO Ver: 5.02/Jan 2001 <BETA> / INPUT DATA FILE
05711> #**************************************************************************
05712> #   Project Name: [Jock River]          Project Number: [1474-16]
05713> #   Date      : 04-03-2021
05714> #   Modeller  : [MM]
05715> #   Company   : JFSAi nc.
05716> #   License #   : 2549237
05717> #**************************************************************************
05718> # CALIBRATION OF SUMMER MODEL PARAMETERS
05719> # USING CONTINUOUS SIMULATIONS
05720> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
05721> # Use data collected from May 1st to July 14, 2003
05722> # 2020-11-30 change TMSTO in COMPUTE DUALHYD (TMSTO = 0.1 instead of 0.0001)
05723> # 2020-12-01 correct pond curve values
05724> # 2020-12-01 change W_CLAR_BRAZ XIMP to 0.55, SLPI=[0.5]{%} (impervious slope), and LGI up to 700m
05725> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"], NHYDin=["SN_TO"]) from 0.033 %(as per S
05726> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0.01 %(as per St
05727> # ---------------------------------------------------------------------------------------------------------
05728> R0010: C00002-------------------------------------------------------------------------------------------
05729>       READ STORM
05730>         Filename = storm.001
05731>         Comment  = Pluie SCS de 24 hres 1:10 ans pour Ottawa CDA
05732>         [ SDI=10.00: SDUR=  24.00: PTOT=  64.69]
05733> R0010: C00003-------------------------------------------------------------------------------------------
05734>       MODIFY STORM
05735>         [ REACT=    1.00: TSHIFT= 960.00 min]
05736>         [ SDI=10.00: SDUR=  40.00: PTOT=  64.69]
05737> R0010: C00004-------------------------------------------------------------------------------------------
05738>       DEFAULT VALUES
05739>         Filename = T:\PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO\SMR-Model\updated3\CitiGate.DEF
05740>         ICASEdv  = 1 (read and print data)
05741>         FileTitle= File comment: [Based onvarious calibration exercises in Onta
05742>                    THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
05743>         Horton's infiltration equation parameters:
05744>         [Fo= 76.20 mm/hr] [Fc=13.20 mm/hr] [DCAY= 4.14 /hr] [F=   .00 mm]
05745>         Parameters for PERVIOUS surfaces in STANDHYD:
05746>         [IAper=    4.67 mm] [LGP=50.00 m] [MNP=  .250]
05747>         Parameters for IMPERVIOUS surfaces in STANDHYD:
05748>         [IAimp=    1.57 mm] [CLI= 1.50]   [MNI=  .013]
05749>         Parameters used in NASHYD:
05750>         [Ia=    4.67 mm] [N= 3.00]
05751>         Average monthly Pan Evaporation data in    (mm)
05752>         JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
05753>         .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
05754>         Average monthly Potential Evapotranspiration in    (mm)
05755>         JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
05756>         .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
05757> R0010: C00005-------------------------------------------------------------------------------------------
05758>       COMPUTE API
05759>         [ APIini =  50.00: APIkdy=  .8500: APIkdm= .9989]
05760>         [ APImax=  97.81: APIavg=  62.29: APImin=  44.87]
05761> #
05762> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05763> # of 1.32
05764> R0010: C00006-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05765>       CONTINUOUS NASHYD       1.0 01: JR_HW          3680.00    11.879 No_date    36:59    20.23 .313     .000
05766>         [ CN= 64.0: N= 3.00: Tp=  7.13]
05767>         [ IaREC= 4.00: SMN= 57.05: SMX=380.32: SK= .010]
05768>         [ InterEventTime=  12.00]
05769> #
05770> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05771> # of 1.32
05772> R0010: C00007-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05773>       CONTINUOUS NASHYD       1.0 01: SW_13           971.00     4.365 No_date    32:35    18.83 .291     .000
05774>         [ CN= 61.0: N= 3.00: Tp=  3.76]
05775>         [ IaREC= 4.00: SMN= 64.50: SMX=430.01: SK= .010]
05776>         [ InterEventTime=  12.00]
05777> #
05778> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05779> # of 1.80
05780> R0010: C00008-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05781>       CONTINUOUS NASHYD       1.0 01: JR_GWM         3074.00     5.829 No_date    39:59    16.22 .251     .000
05782>         [ CN= 55.0: N= 3.00: Tp=11.33]
05783>         [ IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
05784>         [ InterEventTime=  12.00]
05785> R0010: C00009-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05786>       CONTINUOUS NASHYD       1.0 01: JR_ASH         1781.00    10.839 No_date    32:42    24.81 .383     .000
05787>         [ CN= 72.0: N= 3.00: Tp=  3.91]
05788>         [ IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
05789>         [ InterEventTime=  12.00]
05790> R0010: C00010-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05791>       CONTINUOUS NASHYD       1.0 01: SW_11           500.00     5.639 No_date    29:22    21.19 .328     .000
05792>         [ CN= 66.0: N= 3.00: Tp=  1.24]
05793>         [ IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
05794>         [ InterEventTime=  12.00]
05795> #
05796> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05797> # of 1.80
05798> R0010: C00011-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05799>       CONTINUOUS NASHYD       1.0 01: NN_CK          1917.00     7.897 No_date    34:28    21.19 .328     .000
05800>         [ CN= 66.0: N= 3.00: Tp=  5.29]
05801>         [ IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
05802>         [ InterEventTime=  12.00]
05803> #
05804> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05805> # of 1.52
05806> R0010: C00012-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05807>       CONTINUOUS NASHYD       1.0 01: SW_10          5666.00    21.255 No_date    37:58    24.81 .383     .000
05808>         [ CN= 72.0: N= 3.00: Tp=  8.00]
05809>         [ IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
05810>         [ InterEventTime=  12.00]
05811> #
05812> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05813> # of 1.75
05814> R0010: C00013-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05815>       CONTINUOUS NASHYD       1.0 01: KG_CK          8376.00    20.398 No_date    39:59    21.19 .328     .000
05816>         [ CN= 66.0: N= 3.00: Tp=11.66]
05817>         [ IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
05818>         [ InterEventTime=  12.00]
05819> #
05820> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05821> # of 1.68
05822> R0010: C00014-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05823>       CONTINUOUS NASHYD       1.0 01: SW_9           1132.00     8.921 No_date    30:54    23.73 .367     .000
05824>         [ CN= 70.0: N= 3.00: Tp=  2.51]
05825>         [ IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
05826>         [ InterEventTime=  12.00]
05827> #
05828> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05829> # of 1.82
05830> R0010: C00015-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05831>       CONTINUOUS NASHYD       1.0 01: NC_CK          4464.00    10.128 No_date    39:59    19.29 .298     .000
05832>         [ CN= 62.0: N= 3.00: Tp=11.32]
05833>         [ IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
05834>         [ InterEventTime=  12.00]
05835> #
05836> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05837> # of 1.80
05838> R0010: C00016-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05839>       CONTINUOUS NASHYD       1.0 01: SW_8           131.00     1.689 No_date    28:57    19.76 .305     .000
05840>         [ CN= 63.0: N= 3.00: Tp=   .90]
05841>         [ IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
05842>         [ InterEventTime=  12.00]
05843> #
05844> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05845> # of 1.65
05846> R0010: C00017-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05847>       CONTINUOUS NASHYD       1.0 01: HB_DR          3854.00    11.811 No_date    38:37    21.19 .328     .000
05848>         [ CN= 66.0: N= 3.00: Tp=  8.42]
05849>         [ IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
05850>         [ InterEventTime=  12.00]
05851> #
05852> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05853> # of 1.82
05854> R0010: C00018-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05855>       CONTINUOUS NASHYD       1.0 01: SW_7           3197.00     8.899 No_date    36:26    17.07 .264     .000
05856>         [ CN= 57.0: N= 3.00: Tp=  6.65]
05857>         [ IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
05858>         [ InterEventTime=  12.00]
05859> #
05860> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05861> # of 1.75
05862> R0010: C00019-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05863>       CONTINUOUS NASHYD       1.0 01: SW_6           165.00      .818 No_date    33:04    21.69 .335     .000
05864>         [ CN= 67.0: N= 3.00: Tp=  4.18]
05865>         [ IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
05866>         [ InterEventTime=  12.00]
05867> #
05868> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05869> # of 1.67
05870> R0010: C00020-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05871>       CONTINUOUS NASHYD       1.0 01: VG_DR          1332.00     6.069 No_date    35:17    24.81 .383     .000
05872>         [ CN= 72.0: N= 3.00: Tp=  5.95]
05873>         [ IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
05874>         [ InterEventTime=  12.00]
05875> R0010: C00021-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05876>       CONTINUOUS NASHYD       1.0 01: SW_5           224.00     5.246 No_date    28:45    28.24 .437     .000
05877>         [ CN= 77.0: N= 3.00: Tp=   .75]
05878>         [ IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
05879>         [ InterEventTime=  12.00]
05880> #
05881> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05882> # of 1.20
05883> R0010: C00022-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05884>       CONTINUOUS NASHYD       1.0 01: FL_CK          4945.00    28.945 No_date    33:21    25.91 .401     .000
05885>         [ CN= 74.0: N= 3.00: Tp=  4.45]
05886>         [ IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
05887>         [ InterEventTime=  12.00]
05888> R0010: C00023-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05889>       CONTINUOUS NASHYD       1.0 01: SW_5A2           20.00      .614 No_date    28:36    31.37 .485     .000
05890>         [ CN= 81.0: N= 3.00: Tp=   .62]
05891>         [ IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
05892>         [ InterEventTime=  12.00]
05893> #
05894> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
05895> # of 1.61
05896> R0010: C00024-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05897>       CONTINUOUS NASHYD       1.0 01: SW_5A1         1412.00     5.817 No_date    37:54    27.06 .418     .000
05898>         [ CN= 75.0: N= 3.00: Tp=  8.00]
05899>         [ IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
05900>         [ InterEventTime=  12.00]
05901> R0010: C00025-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05902>       CONTINUOUS NASHYD       1.0 01: SW_4           585.00     8.458 No_date    29:57    31.37 .485     .000
05903>         [ CN= 81.0: N= 3.00: Tp=  1.75]
05904>         [ IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
05905>         [ InterEventTime=  12.00]
05906> R0010: C00026-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05907>       CONTINUOUS NASHYD       1.0 01: LM_CK          1021.00    11.195 No_date    30:48    30.72 .475     .000
05908>         [ CN= 80.0: N= 3.00: Tp=  2.46]
05909>         [ IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
05910>         [ InterEventTime=  12.00]
05911> R0010: C00027-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05912>       CONTINUOUS NASHYD       1.0 01: SW_2           177.00     4.146 No_date    28:45    28.24 .437     .000
05913>         [ CN= 77.0: N= 3.00: Tp=   .75]
05914>         [ IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
05915>         [ InterEventTime=  12.00]
05916> R0010: C00028-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05917>       CONTINUOUS NASHYD       1.0 01: SM_DR          1122.00    10.275 No_date    31:46    31.37 .485     .000
05918>         [ CN= 81.0: N= 3.00: Tp=  3.25]
05919>         [ IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
05920>         [ InterEventTime=  12.00]
05921> R0010: C00029-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05922>       CONTINUOUS NASHYD       1.0 01: MO_DR          2737.00    22.669 No_date    31:32    27.64 .427     .000
05923>         [ CN= 76.0: N= 3.00: Tp=  3.03]
05924>         [ IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
05925>         [ InterEventTime=  12.00]
05926> #
05927> # Routing hydrographs
05928> #
05929> # Starting with the addition of Jock River Headwater and Subwatershed 13
05930> #
05931> R0010: C00030-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05932>       ADD HYD                 1.0 02: JR_HW          3680.00    11.879 No_date    36:59    20.23  n/a     .000
05933>                           +     1.0 02: SW_13           971.00     4.365 No_date    32:35    18.83  n/a     .000
05934>                         SUM=    1.0 01: SN_N13         4651.00    15.130 No_date    35:28    19.94  n/a     .000
05935> #
05936> # Sum of hydrographs from Node 13 routed to Node 13A
05937> # (Approximated cross-section - see cross-section 258)
05938> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
05939> #
05940> R0010: C00031-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05941>       ROUTE CHANNEL    -->    1.0 02: S_N13          4651.00    15.130 No_date    35:28    19.94  n/a     .000
05942>         [ RDT= 1.00] out <-     1.0 01: N13A           4651.00    12.097 No_date    39:41    19.94  n/a     .000
05943>         [ L/ S/ n=  9074./ .022/ .040]
05944>         [ Vmx=   .508: Dmx=  3.307]
05945> #
05946> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
05947> #
05948> R0010: C00032-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05949>       ADD HYD                 1.0 02: N13A           4651.00    12.097 No_date    39:41    19.94  n/a     .000
05950>                           +     1.0 02: JR_GWM         3074.00     5.829 No_date    39:59    16.22  n/a     .000
05951>                         SUM=    1.0 01: SN13A          7725.00    17.918 No_date    39:59    18.46  n/a     .000
05952> #
05953> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
05954> #
05955> R0010: C00033-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05956>       ROUTE RESERVOIR -->     1.0 02: SN13A          7725.00    17.918 No_date    39:59    18.46  n/a     .000
05957>                       out <=    1.0 01: RES_GM         7725.00     3.524 No_date    58:32    18.46  n/a     .000
05958>         [MxStoDec= .8503E+02  m3]
05959> #
05960> R0010: C00034-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05961>       SAVE HYD                1.0 01: RES_GM         7725.00     3.524 No_date    58:32    18.46  n/a     .000
05962>         fname: H_RESGM
05963>         remark: Outflow from Res GM
05964> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
05965> # (Approximated cross-section - see cross-section 258)
05966> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
05967> R0010: C00035-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05968>       ROUTE CHANNEL    -->    1.0 02: RES_GM         7725.00     3.524 No_date    58:32    18.46  n/a     .000
05969>         [ RDT= 1.00] out <-     1.0 01: N12            7725.00     3.519 No_date    61:53    18.46  n/a     .000
05970>         [ L/ S/ n=  5926./ .076/ .040]
05971>         [ Vmx=   .546: Dmx=  1.499]
05972> #
05973> # Addition of Subwatershed Jock River at Ashton to Node 12
05974> #
05975> R0010: C00036-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05976>       ADD HYD                 1.0 02: N12            7725.00     3.519 No_date    61:53    18.46  n/a     .000
05977>                           +     1.0 02: JR_ASH         1781.00    10.839 No_date    32:42    24.81  n/a     .000
05978>                         SUM=    1.0 01: S_N12          9506.00    12.834 No_date    32:45    19.65  n/a     .000
05979> R0010: C00037-------------DTmin-ID: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
05980>       SAVE HYD                1.0 01: S_N12          9506.00    12.834 No_date    32:45    19.65  n/a     .000
05981>         fname: H_SN12
05982>         remark: flow at S_N12 near Ashton
05983> #
05984> # Sum of hydrographs from Node 12 routed to Node 11
```

```
05985> # (Approximated cross-section - see cross-section 258)
05986> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
05987> #
05988> # Sum of hydrographs from Node 12 routed to Node 11 with Dammy section 248
05989> #
05990> R0010: CO0038-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05991>      ROUTE CHANNEL   ->      1. 0 02: S_N12       9506.00    12. 834 No_date   32: 45    19. 65   n/a      .000
05992>        [ RDT= 1. 00] out <-      1. 0 01: Dam1      9506.00    12. 710 No_date   33: 02    19. 65   n/a      .000
05993>          [ L/ S/ n=  972. /  . 054/ . 040]
05994>          [ Vmx=  . 680: Dmx=  2. 598]
05995> #
05996> # Addition of Subwatershed 11 and No Name Creek to Node 11
05997> #
05998> R0010: CO0039-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
05999>      ADD HYD                 1. 0 02: Dam1      9506.00    12. 710 No_date   33: 02    19. 65   n/a      .000
06000>                        +     1. 0 02: SW_11      500.00     5. 639 No_date   29: 22    21. 19   n/a      .000
06001>                        +     1. 0 02: NN_CK     1917.00     7. 897 No_date   34: 28    21. 19   n/a      .000
06002>                    SUM=      1. 0 01: S_N11    11923.00    21. 813 No_date   33: 05    19. 96   n/a      .000
06003> #
06004> # Sum of hydrographs from Node 11 routed to Node 10
06005> # Section 1
06006> #
06007> R0010: CO0040-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06008>      ROUTE CHANNEL   ->      1. 0 02: S_N11     11923.00    21. 813 No_date   33: 05    19. 96   n/a      .000
06009>        [ RDT= 1. 00] out <-      1. 0 01: N10      11923.00    14. 761 No_date   39: 58    19. 96   n/a      .000
06010>          [ L/ S/ n=14028. /  . 157/ . 040]
06011>          [ Vmx=  . 452: Dmx=  1. 212]
06012> #
06013> # Addition of Subwatershed 10 to Node 10
06014> #
06015> R0010: CO0041-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06016>      ADD HYD                 1. 0 02: N10      11923.00    14. 761 No_date   39: 58    19. 96   n/a      .000
06017>                        +     1. 0 02: SW_10     5666.00    21. 255 No_date   37: 58    24. 81   n/a      .000
06018>                    SUM=      1. 0 01: S_N10    17589.00    35. 808 No_date   38: 35    21. 52   n/a      .000
06019> R0010: CO0042-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06020>      SAVE HYD                1. 0 01: S_N10    17589.00    35. 808 No_date   38: 35    21. 52   n/a      .000
06021>          fname : H_SN10
06022>          remark: flow at S_N10:  N10 + SW10
06023> # Addition of Kings Creek to S_N10
06024> #
06025> R0010: CO0043-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06026>      ADD HYD                 1. 0 02: S_N10    17589.00    35. 808 No_date   38: 35    21. 52   n/a      .000
06027>                        +     1. 0 02: KG_CK     8376.00    20. 398 No_date   39: 59    21. 19   n/a      .000
06028>                    SUM=      1. 0 01: S_N10A   25965.00    55. 807 No_date   39: 58    21. 41   n/a      .000
06029> #
06030> # Sum of hydrographs from Node 10 routed to Node 9
06031> # Section 2
06032> #
06033> R0010: CO0044-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06034>      ROUTE CHANNEL   ->      1. 0 02: S_N10A   25965.00    55. 807 No_date   39: 58    21. 41   n/a      .000
06035>        [ RDT= 1. 00] out <-      1. 0 01: N9       25965.00    54. 076 No_date   39: 59    21. 41   n/a      .000
06036>          [ L/ S/ n= 3982. /  . 075/ . 040]
06037>          [ Vmx=  . 682: Dmx=  1. 695]
06038> #
06039> # Addition of Subwatershed 9 and Nichols Creek to Node 9
06040> #
06041> R0010: CO0045-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06042>      ADD HYD                 1. 0 02: N9       25965.00    54. 076 No_date   39: 59    21. 41   n/a      .000
06043>                        +     1. 0 02: SW_9      1132.00     8. 921 No_date   30: 54    23. 73   n/a      .000
06044>                        +     1. 0 02: NC_CK     4464.00    10. 128 No_date   39: 59    19. 29   n/a      .000
06045>                    SUM=      1. 0 01: S_N9     31561.00    66. 284 No_date   39: 59    21. 20   n/a      .000
06046> #
06047> # Sum of hydrographs from Node 9 routed to Node 8
06048> # Section 3
06049> #
06050> R0010: CO0046-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06051>      ROUTE CHANNEL   ->      1. 0 02: S_N9     31561.00    66. 284 No_date   39: 59    21. 20   n/a      .000
06052>        [ RDT= 1. 00] out <-      1. 0 01: N8       31561.00    61. 483 No_date   39: 57    21. 20   n/a      .000
06053>          [ L/ S/ n= 2269. /  . 088/ . 045]
06054>          [ Vmx=  . 363: Dmx=  1. 619]
06055> #
06056> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
06057> #
06058> R0010: CO0047-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06059>      ADD HYD                 1. 0 02: N8       31561.00    61. 483 No_date   39: 57    21. 20   n/a      .000
06060>                        +     1. 0 02: SW_8       131.00     1. 689 No_date   28: 57    19. 76   n/a      .000
06061>                        +     1. 0 02: HB_DR     3854.00    11. 811 No_date   38: 37    21. 19   n/a      .000
06062>                    SUM=      1. 0 01: S_N8     35546.00    73. 344 No_date   39: 57    21. 19   n/a      .000
06063> #
06064> # Sum of hydrographs from Node 8 routed to Node 7
06065> # Section 4
06066> #
06067> R0010: CO0048-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06068>      ROUTE CHANNEL   ->      1. 0 02: S_N8     35546.00    73. 344 No_date   39: 57    21. 19   n/a      .000
06069>        [ RDT= 1. 00] out <-      1. 0 01: N7       35546.00    61. 416 No_date   45: 01    21. 19   n/a      .000
06070>          [ L/ S/ n= 3750. /  . 053/ . 070]
06071>          [ Vmx=  . 218: Dmx=  1. 987]
06072> #
06073> # Addition of Subwatershed 7 to Node 7
06074> #
06075> R0010: CO0049-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06076>      ADD HYD                 1. 0 02: N7       35546.00    61. 416 No_date   45: 01    21. 19   n/a      .000
06077>                        +     1. 0 02: SW_7      3197.00     8. 899 No_date   36: 26    17. 07   n/a      .000
06078>                    SUM=      1. 0 01: S_N7     38743.00    65. 819 No_date   44: 06    20. 85   n/a      .000
06079> R0010: CO0050-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06080>      SAVE HYD                1. 0 01: S_N7     38743.00    65. 819 No_date   44: 06    20. 85   n/a      .000
06081>          fname : H_SN7
06082>          remark: flow at S_N7:  N7 + SW_7
06083> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
06084> # Storage area and volumes were estimated from available topo maps.
06085> # Release rate from Fen was assumed to be controlled by the downstream
06086> # river cross-section for summer conditions.  It is was assumed that for up to
06087> # 0. 75 m of water, the main channel of the river provided the storage.  Above
06088> # this depth, the wetland starts to signi gicantly store water.
06089> #
06090> R0010: CO0051-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06091>      ROUTE RESERVOIR ->      1. 0 02: S_N7     38743.00    65. 819 No_date   44: 06    20. 85   n/a      .000
06092>                          out <=      1. 0 01: RES_RF   38743.00    31. 796 No_date   60: 32    20. 85   n/a      .000
06093>          [ MxStOlKed= 2597E+03   m3]
06094> R0010: CO0052-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06095>      SAVE HYD                1. 0 01: RES_RF   38743.00    31. 796 No_date   60: 32    20. 85   n/a      .000
06096>          fname : H_ResRF
06097>          remark: outflow of Richmond Fen
06098> #
06099> # Sum of hydrographs from Node 7 routed to Node 6
06100> # Section 5
06101> #
06102> R0010: CO0053-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06103>      ROUTE CHANNEL   ->      1. 0 02: RES_RF   38743.00    31. 796 No_date   60: 32    20. 85   n/a      .000
06104>        [ RDT= 1. 00] out <-      1. 0 01: N6       38743.00    31. 737 No_date   62: 00    20. 85   n/a      .000
06105>          [ L/ S/ n= 3056. /  . 082/ . 025]
06106>          [ Vmx=  . 477: Dmx=  . 960]
06107> #
06108> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
06109> #
06110> R0010: CO0054-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06111>      ADD HYD                 1. 0 02: N6       38743.00    31. 737 No_date   62: 00    20. 85   n/a      .000
06112>                        +     1. 0 02: SW_6       165.00      . 818 No_date   33: 04    21. 69   n/a      .000
06113>                        +     1. 0 02: VG_DR     1332.00     6. 069 No_date   35: 17    24. 81   n/a      .000
06114>                    SUM=      1. 0 01: S_N6     40240.01    31. 737 No_date   62: 00    20. 99   n/a      .000
06115> #
06116> # Sum of hydrographs from Node 6 routed to Node 5
06117> # Section 6
06118> #
06119> R0010: CO0055-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06120>      ROUTE CHANNEL   ->      1. 0 02: S_N6     40240.01    31. 737 No_date   62: 00    20. 99   n/a      .000
06121>        [ RDT= 1. 00] out <-      1. 0 01: N5       40240.01    31. 713 No_date   62: 48    20. 99   n/a      .000
06122>          [ L/ S/ n= 1852. /  . 054/ . 035]
06123>          [ Vmx=  . 412: Dmx=  1. 069]
06124> #
06125> # Addition of Subwatershed 5 and Flowing Creek to Node 5
06126> #
06127> R0010: CO0056-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06128>      ADD HYD                 1. 0 02: N5       40240.01    31. 713 No_date   62: 48    20. 99   n/a      .000
06129>                        +     1. 0 02: SW_5       224.00     5. 246 No_date   28: 45    28. 24   n/a      .000
06130>                        +     1. 0 02: FL_CK     4945.00    28. 945 No_date   33: 21    25. 91   n/a      .000
06131>                    SUM=      1. 0 01: S_N5     45409.01    51. 448 No_date   34: 54    21. 56   n/a      .000
06132> #
06133> # Sum of hydrographs from Node 5 routed to Node 5A
06134> # Section 7
06135> #
06136> R0010: CO0057-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06137>      ROUTE CHANNEL   ->      1. 0 02: S_N5     45409.01    51. 448 No_date   34: 54    21. 56   n/a      .000
06138>        [ RDT= 1. 00] out <-      1. 0 01: N5A      45409.01    51. 312 No_date   35: 12    21. 56   n/a      .000
06139>          [ L/ S/ n=  556. /  . 090/ . 040]
06140>          [ Vmx=  . 485: Dmx=  1. 131]
06141> #
06142> # Addition of Subwatershed 5Al and Subwatershed 5A2 to Node 5A
06143> #
06144> R0010: CO0058-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06145>      ADD HYD                 1. 0 02: N5A      45409.01    51. 312 No_date   35: 12    21. 56   n/a      .000
06146>                        +     1. 0 02: SW_5A2      20.00      . 614 No_date   28: 36    31. 37   n/a      .000
06147>                        +     1. 0 02: SW_5Al    1412.00     5. 817 No_date   37: 54    27. 06   n/a      .000
06148>                    SUM=      1. 0 01: S_N5A    46841.01    56. 788 No_date   35: 22    21. 73   n/a      .000
06149> #
06150> # Sum of hydrographs from Node 5A routed to Node 4
06151> # Section 8
06152> #
06153> R0010: CO0059-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06154>      ROUTE CHANNEL   ->      1. 0 02: S_N5A    46841.01    56. 788 No_date   35: 22    21. 73   n/a      .000
06155>        [ RDT= 1. 00] out <-      1. 0 01: N4       46841.01    54. 543 No_date   36: 56    21. 73   n/a      .000
06156>          [ L/ S/ n= 4630. /  . 043/ . 035]
06157>          [ Vmx=  . 793: Dmx=  3. 295]
06158> #
06159> # Addition of Subwatershed 4 and Leamy Creek to Node 4
06160> #
06161> R0010: CO0060-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06162>      ADD HYD                 1. 0 02: N4       46841.01    54. 543 No_date   36: 56    21. 73   n/a      .000
06163>                        +     1. 0 02: SW_4       585.00     8. 458 No_date   29: 57    31. 37   n/a      .000
06164>                        +     1. 0 02: LM_CK     1021.00    11. 195 No_date   30: 48    30. 72   n/a      .000
06165>                    SUM=      1. 0 01: S_N4     48447.00    59. 934 No_date   36: 12    22. 03   n/a      .000
06166> R0010: CO0061-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06167>      SAVE HYD                1. 0 01: S_N4     48447.00    59. 934 No_date   36: 12    22. 03   n/a      .000
06168>          fname : S_N4. 0010
06169>          remark: flow at S_N4
06170> #
06171> # Sum of hydrographs from Node 4 routed to Node 2
06172> # Section 9
06173> #
06174> R0010: CO0062-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06175>      ADD HYD                 1. 0 02: S_N4     48447.00    59. 934 No_date   36: 12    22. 03   n/a      .000
06176>                        +     1. 0 02: SW_2       177.00     4. 146 No_date   28: 45    28. 24   n/a      .000
06177>                        +     1. 0 02: SM_DR     1122.00    10. 275 No_date   31: 46    31. 37   n/a      .000
06178>                        +     1. 0 02: MD_DR     2737.00    22. 669 No_date   31: 32    27. 64   n/a      .000
06179>                    SUM=      1. 0 01: S_N2     52483.00    83. 235 No_date   33: 15    22. 55   n/a      .000
06180> R0010: CO0064-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06181>      SAVE HYD                1. 0 01: S_N2     52483.00    83. 235 No_date   33: 15    22. 55   n/a      .000
06182>          fname : H_SN2
06183>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
06184> #
06185> # Sum of hydrographs from Node 2 routed to Node 1
06186> # Section 10
06187> #
06188> #*************************************************************************
06189> #
06190> # Hydrograph from Node 2 routed to Node 416
06191> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
06192> #
06193> R0010: CO0065-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06194>      ROUTE CHANNEL   ->      1. 0 02: S_N2     52483.00    83. 235 No_date   33: 15    22. 55   n/a      .000
06195>        [ RDT= 1. 00] out <-      1. 0 01: N_416    52483.00    81. 216 No_date   34: 18    22. 55   n/a      .000
06196>          [ L/ S/ n= 2327. /  . 050/ . 055]
06197>          [ Vmx=  . 705: Dmx=  2. 943]
06198> #*************************************************************************
06199> #     Catchment SW1a
06200> #     - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
06201> #     - Undeveloped agricultural land
06202> #*************************************************************************
06203> R0010: CO0066-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06204>      CONTINUOUS NASHYD       1. 0 01: SW_1a      536.42     3. 888 No_date   31: 17    23. 57   . 364      .000
06205>          [ CN= 72. 0: N= 3. 00: Tp=  0. 79]
06206>          [ IaREC= 4. 00: SM N= 39. 75:  SMX= 264. 99:  SK=  . 010]
06207>          [ InterEventTime=  12. 00]
06208> R0010: CO0067-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06209>      CONTINUOUS STANDHYD     1. 0 01: S- 1- Okeefe     44. 93     5. 420 No_date   28: 03    48. 63   . 752      .000
06210>          [ XI MP= 0. 65: TI MP=  . 65]
06211>          [ LGRS= 2 : CN=  75. 0]
06212>          [ Pervious      area:  I Aper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
06213>          [ Impervious    area:  I Aimp= 1. 57: SLPI= . 75: LGI= 547. : MNI= . 013: SCI=    . 0]
06214>          [ IaRECimp=   4. 00:  IaRECper=    4. 00]
06215>          [ SM N= 33. 81:  SMX= 225. 43:  SK=  . 010]
06216> R0010: CO0068-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06217>      COMPUTE HALFHYD         1. 0 01: S- 1- Okeefe     44. 93     5. 420 No_date   28: 03    48. 63   n/a      .000
06218>          Major System   /        1. 0 02: S- 1- OkM        . 00      . 000 No_date   0: 00      . 00   n/a      .000
06219>          Minor System   \        1. 0 03: S- 1- OkMN      44. 93     4. 591 No_date   27: 58    48. 66   n/a      .000
06220>          [ MjSysSto= 3168E+03:  TotOrVol= . 0000E+00:  N- Or f=     0:  TotDurOrf=     0. hrs]
06221> R0010: CO0069-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06222>      ADD HYD                 1. 0 02: S- 1- OkM        . 00      . 000 No_date   0: 00      . 00   n/a      .000
06223>                        +     1. 0 02: S- 1- OkMN      44. 93     4. 591 No_date   27: 58    48. 66   n/a      .000
06224>                    SUM=      1. 0 01: S- 1- OkS       44. 93     4. 591 No_date   27: 58    48. 66   n/a      .000
06225> R0010: CO0070-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06226>      ROUTE RESERVOIR ->      1. 0 02: S- 1- OkS       44. 93     4. 591 No_date   27: 58    48. 66   n/a      .000
06227>                          out <=      1. 0 01: S- 1- OkSR      44. 93      . 393 No_date   29: 29    48. 66   n/a      .000
06228>                    overflow <=       1. 0 03: S- 1- OkSovf     . 00      . 000 No_date   0: 00      . 00   n/a      .000
06229>          [ MxStOlKed= 1312E+01   m3,  TotOrVol= . 0000E+00   m3,  N- Or f=     0,  TotDurOrf=     0. hrs]
06230> R0010: CO0071-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06231>      ADD HYD                 1. 0 02: S_N_416    52483.00    81. 216 No_date   34: 18    22. 55   n/a      .000
06232>                        +     1. 0 02: SW_1a      536.42     3. 888 No_date   31: 17    23. 57   n/a      .000
06233>                        +     1. 0 02: S- 1- OkSR      44. 93      . 393 No_date   29: 29    48. 66   n/a      .000
06234>                        +     1. 0 02: S- 1- OkSovf     . 00      . 000 No_date   0: 00      . 00   n/a      .000
06235>                    SUM=      1. 0 01: SN_416     53064. 36    84. 340 No_date   33: 41    22. 58   n/a      .000
06236> R0010: CO0072-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06237>      SAVE HYD                1. 0 01: SN_416     53064. 36    84. 340 No_date   33: 41    22. 58   n/a      .000
06238>          fname : SN_416. 0010
06239>          remark: Total Flows at Highway 416 before Station 7245
06240> #
06241> # Hydrograph from Node 416 routed to Node at Okeefe drain
06242> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
06243> #
06244> #*************************************************************************
06245> #     Catchment OKEEFE
06246> #     - To O'Keefe drain (north of the Jock)
06247> #     - Developed with assumed 43% imp.
06248> #     - 2020-12-01 add Okeefe model (Area 513. 02 HA) instead of current Okeefe (Area 513. 02 HA)
06249> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
06250> #*************************************************************************
06251> R0010: CO0073-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06252>      ROUTE CHANNEL   ->      1. 0 02: SN_416     53064. 36    84. 340 No_date   33: 41    22. 58   n/a      .000
06253>        [ RDT= 1. 00] out <-      1. 0 01: N_OK     53064. 36    84. 256 No_date   33: 41    22. 58   n/a      .000
06254>          [ L/ S/ n=  497. /  . 302/ . 055]
06255>          [ Vmx=  1. 451: Dmx=  2. 498]
06256> #*************************************************************************
06257> #     Catchment OKEEFE
06258> #     - To O'Keefe drain (north of the Jock)
06259> #     - Developed with assumed 43% imp.
06260> #     - 2020-12-01 add Okeefe model (Area 513. 02 HA) instead of current Okeefe (Area 513. 02 HA)
06261> #     - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
06262> #*************************************************************************
06263> R0010: CO0074-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06264>      CONTINUOUS NASHYD       1. 0 01: O- 1       63. 72      . 684 No_date   28: 58    17. 24   . 266      .000
06265>          [ CN= 61. 0: N= 3. 00: Tp=  . 90]
06266>          [ IaREC= 4. 00: SM N= 64. 50:  SMX= 430. 01:  SK=  . 010]
06267>          [ InterEventTime=  12. 00]
06268> R0010: CO0075-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06269>      ROUTE CHANNEL   ->      1. 0 02: O- 1       63. 72      . 684 No_date   28: 58    17. 24   n/a      .000
06270>        [ RDT= 1. 00] out <-      1. 0 01: O- 1R      63. 72      . 637 No_date   29: 17    17. 24   n/a      .000
06271>          [ L/ S/ n=  960. /  . 630/ . 043]
06272>          [ Vmx=  . 755: Dmx=  . 334]
06273> R0010: CO0076-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06274>      CONTINUOUS NASHYD       1. 0 01: O- 2       28. 61      . 242 No_date   29: 13    16. 01   . 248      .000
06275>          [ CN= 57. 0: N= 3. 00: Tp=  1. 10]
06276>          [ IaREC= 4. 00: SM N= 76. 32:  SMX= 508. 81:  SK=  . 010]
06277>          [ InterEventTime=  12. 00]
06278> R0010: CO0077-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06279>      CONTINUOUS NASHYD       1. 0 01: O- 4       46. 94      . 303 No_date   29: 00    12. 15   . 188      .000
06280>          [ CN= 49. 0: N= 3. 00: Tp=  . 90]
06281>          [ IaREC= 4. 00: SM N= 104. 59:  SMX= 697. 25:  SK=  . 010]
06282>          [ InterEventTime=  12. 00]
06283> R0010: CO0078-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06284>      ADD HYD                 1. 0 02: O- 1R      63. 72      . 637 No_date   29: 17    17. 24   n/a      .000
06285>                        +     1. 0 02: O- 2       28. 61      . 242 No_date   29: 13    16. 01   n/a      .000
06286>                        +     1. 0 02: O- 4       46. 94      . 303 No_date   29: 00    12. 15   n/a      .000
06287>                    SUM=      1. 0 01: OKF- N    139. 27     1. 172 No_date   29: 12    15. 27   n/a      .000
06288> R0010: CO0079-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06289>      ROUTE CHANNEL   ->      1. 0 02: OKF- N    139. 27     1. 172 No_date   29: 12    15. 27   n/a      .000
06290>        [ RDT= 1. 00] out <-      1. 0 01: OKF- NR    139. 27     1. 170 No_date   29: 16    15. 27   n/a      .000
06291>          [ L/ S/ n=  210. /  . 810/ . 043]
06292>          [ Vmx=  . 916: Dmx=  . 609]
06293> R0010: CO0080-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06294>      CONTINUOUS NASHYD       1. 0 01: O- 6       16. 46      . 101 No_date   28: 45    10. 60   . 164      .000
06295>          [ CN= 43. 0: N= 3. 00: Tp=  . 70]
06296>          [ IaREC= 4. 00: SM N= 134. 47:  SMX= 896. 47:  SK=  . 010]
06297>          [ InterEventTime=  12. 00]
06298> R0010: CO0081-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06299>      CONTINUOUS STANDHYD     1. 0 01: O- 3       39. 67      . 767 No_date   28: 24    19. 36   . 299      .000
06300>          [ XI MP= 0. 15: TI MP=  . 30]
06301>          [ LGRS= 2 : CN=  50. 0]
06302>          [ Pervious      area:  I Aper= 4. 67: SLPP=  . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
06303>          [ Impervious    area:  I Aimp= 1. 57: SLPI=  . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
06304>          [ IaRECimp=   4. 00:  IaRECper=    4. 00]
06305>          [ SM N= 99. 77:  SMX= 665. 12:  SK=  . 010]
06306> R0010: CO0082-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06307>      CONTINUOUS STANDHYD     1. 0 01: O- 5       60. 63     1. 881 No_date   28: 10    22. 00   . 340      .000
06308>          [ XI MP= 0. 13: TI MP=  . 26]
06309>          [ LGRS= 2 : CN=  61. 0]
06310>          [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 38: LGP=  550. : MNP= . 035: SCP=    . 0]
06311>          [ Impervious    area:  I Aimp= 1. 57: SLPI= 1. 38: LGI= 1450. : MNI= . 013: SCI=    . 0]
06312>          [ IaRECimp=   4. 00:  IaRECper=    4. 00]
06313>          [ SM N= 64. 50:  SMX= 430. 01:  SK=  . 010]
06314> R0010: CO0083-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06315>      ADD HYD                 1. 0 02: OKF- NR    139. 27     1. 170 No_date   29: 16    15. 27   n/a      .000
06316>                        +     1. 0 02: O- 3       39. 67      . 767 No_date   28: 24    19. 36   n/a      .000
06317>                        +     1. 0 02: O- 5       60. 63     1. 881 No_date   28: 10    22. 00   n/a      .000
06318>                        +     1. 0 02: O- 6       16. 46      . 101 No_date   28: 45    10. 60   n/a      .000
06319>                    SUM=      1. 0 01: PT1       256. 03     3. 008 No_date   28: 23    17. 20   n/a      .000
06320> R0010: CO0084-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06321>      CONTINUOUS NASHYD       1. 0 01: O- 7        5. 28      . 056 No_date   28: 37    14. 05   . 217      .000
06322>          [ CN= 54. 0: N= 3. 00: Tp=  . 60]
06323>          [ IaREC= 4. 00: SM N= 87. 01:  SMX= 580. 07:  SK=  . 010]
06324>          [ InterEventTime=  . 667]
06325> R0010: CO0085-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06326>      ADD HYD                 1. 0 02: PT1       256. 03     3. 008 No_date   28: 23    17. 20   n/a      .000
06327>                        +     1. 0 02: O- 7        5. 28      . 056 No_date   28: 37    14. 05   n/a      .000
06328>                    SUM=      1. 0 01: FF        261. 31     3. 058 No_date   28: 23    17. 14   n/a      .000
06329> R0010: CO0086-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06330>      ROUTE CHANNEL   ->      1. 0 02: FF        261. 31     3. 058 No_date   28: 23    17. 14   n/a      .000
06331>        [ RDT= 1. 00] out <-      1. 0 01: DRAI NI    261. 31     2. 972 No_date   28: 31    17. 14   n/a      .000
06332>          [ L/ S/ n=  302. / 1. 000/ . 043]
06333>          [ Vmx=  . 783: Dmx=  . 667]
06334> R0010: CO0087-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06335>      CONTINUOUS NASHYD       1. 0 01: DI          1. 17      . 058 No_date   28: 12    29. 30   . 453      .000
06336>          [ CN= 84. 0: N= 3. 00: Tp=  . 28]
06337>          [ IaREC= 4. 00: SM N= 21. 09:  SMX= 140. 62:  SK=  . 010]
06338>          [ InterEventTime=  12. 00]
06339> R0010: CO0088-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06340>      CONTINUOUS STANDHYD     1. 0 01: Al          2. 50      . 391 No_date   28: 01    50. 29   . 777      .000
06341>          [ XI MP= 0. 68: TI MP=  . 85]
06342>          [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:     F=    . 00]
06343>          [ Pervious      area:  I Aper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
06344>          [ Impervious    area:  I Aimp= 1. 57: SLPI=  . 50: LGI=  224. : MNI= . 013: SCI=    . 0]
06345>          [ IaRECimp=   4. 00:  IaRECper=    4. 00]
06346> R0010: CO0089-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06347>      ROUTE RESERVOIR ->      1. 0 02: Al          2. 50      . 391 No_date   28: 01    50. 29   n/a      .000
06348>                          out <=      1. 0 01: Al- STR     2. 50      . 098 No_date   28: 24    50. 29   n/a      .000
06349>                    overflow <=       1. 0 03: Al- OVF      . 00      . 000 No_date   0: 00      . 00   n/a      .000
06350>          [ MxStOlKed= 5829E- 01   m3,  TotOrVol= . 0000E+00   m3,  N- Or f=     0,  TotDurOrf=     0. hrs]
06351> R0010: CO0090-------------DTmin- I D: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
06352>      CONTINUOUS STANDHYD     1. 0 01: ST- 2        . 59      . 075 No_date   28: 00    38. 69   . 598      .000
06353>          [ XI MP= 0. 46: TI MP=  . 57]
06354>          [ Horton parameters:  Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:     F=    . 00]
06355>          [ Pervious      area:  I Aper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
06356>          [ Impervious    area:  I Aimp= 1. 57: SLPI=  . 50: LGI=  109. : MNI= . 013: SCI=    . 0]
06357>          [ IaRECimp=   4. 00:  IaRECper=    4. 00]
06358>
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06359> R0010: C00091 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06360>       ROUTE RESERVOIR ->      1. 0 02: ST- 2          .59       .075 No_date   28: 00    38. 69   n/ a      .000
06361>                       out <=  1. 0 02: ST2STR         .59       .052 No_date   28: 05    38. 69   n/ a      .000
06362>                  overflow <=  1. 0 03: ST2OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06363> {MkStolked=. 1835E- 02   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06364> R0010: C00092 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06365>       CONTI NUOUS NASHYD      1. 0 01: O- 8           60. 55       .857 No_date   29: 04    22. 40   .346      .000
06366>        [ CN= 69. 0:  N= 3. 00:  Tp=  1. 00]
06367>        [ I aREC= 4. 00:  SMN=  44. 82:  SMX= 298. 82:  SK=  . 010]
06368>        [ I nterEventTime=  12. 00]
06369> R0010: C00093 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06370>       ROUTE PI PE             1. 0 02: O- 8           60. 55       .857 No_date   29: 04    22. 40   n/ a      .000
06371>        [ RDT= 1. 00]  out <-   1. 0 01: OBPI PE       60. 55       .852 No_date   29: 08    22. 40   n/ a      .000
06372>        [ L/ S/ n=  335. /  . 100/ . 013]
06373>        [ Vmax=  1. 080:  Dmax=  . 441]
06374>        [ HGT H=  1. 20:  WDTH=  1. 80]
06375> R0010: C00094 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06376>       ADD HYD                 1. 0 02: DRAI N1        261. 31      2. 972 No_date   28: 31    17. 14   n/ a      .000
06377>                           +   1. 0 02: DI              1. 17       .058 No_date   28: 12    29. 30   n/ a      .000
06378>                           +   1. 0 02: AI - STR        2. 50       .098 No_date   28: 24    50. 29   n/ a      .000
06379>                           +   1. 0 02: AI - OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06380>                           +   1. 0 02: ST2STR          .59       .052 No_date   28: 05    38. 69   n/ a      .000
06381>                           +   1. 0 02: ST2OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06382>                           +   1. 0 02: OBPI PE        60. 55       .852 No_date   29: 08    22. 40   n/ a      .000
06383>                       SUM=    1. 0 01: ST2- I N       326. 12      3. 771 No_date   28: 40    18. 45   n/ a      .000
06384> R0010: C00095 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06385>       CONTI NUOUS STANDHYD    1. 0 01: A7             3. 51       .538 No_date   28: 01    50. 29   .777      .000
06386>        [ XI MP=. 68:  TI MP=. 85]
06387>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06388>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06389>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI = 265. :  MNI =. 013:  SCI =    . 0]
06390>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06391> R0010: C00096 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06392>       ROUTE RESERVOIR ->      1. 0 02: A7             3. 51       .538 No_date   28: 01    50. 29   n/ a      .000
06393>                       out <=  1. 0 01: A7- STR        3. 51       .139 No_date   28: 25    50. 29   n/ a      .000
06394>                  overflow <=  1. 0 01: A7- OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06395> {MkStolked=. 8167E- 01   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06396> R0010: C00097 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06397>       CONTI NUOUS STANDHYD    1. 0 01: ST- 3          .71       .089 No_date   28: 00    38. 69   .598      .000
06398>        [ XI MP=. 46:  TI MP=. 57]
06399>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06400>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06401>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI = 119. :  MNI =. 013:  SCI =    . 0]
06402>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06403> R0010: C00098 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06404>       ROUTE RESERVOIR ->      1. 0 02: ST- 3          .71       .089 No_date   28: 00    38. 69   n/ a      .000
06405>                       out <=  1. 0 01: ST3STR         .71       .063 No_date   28: 05    38. 69   n/ a      .000
06406>                  overflow <=  1. 0 01: ST3OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06407> {MkStolked=. 1988E- 02   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06408> R0010: C00099 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06409>       ADD HYD                 1. 0 02: ST2- I N       326. 12      3. 771 No_date   28: 40    18. 45   n/ a      .000
06410>                           +   1. 0 02: A7- STR         3. 51       .139 No_date   28: 25    50. 29   n/ a      .000
06411>                           +   1. 0 02: A7- OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06412>                           +   1. 0 02: ST3STR          .71       .063 No_date   28: 05    38. 69   n/ a      .000
06413>                           +   1. 0 02: ST3OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06414>                       SUM=    1. 0 01: PT2ST3         330. 34      3. 914 No_date   28: 39    18. 83   n/ a      .000
06415> R0010: C00100 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06416>       ROUTE CHANNEL           ->      1. 0 02: PT2ST3         330. 34      3. 914 No_date   28: 39    18. 83   n/ a      .000
06417>        [ RDT= 1. 00]  out <-   1. 0 01: DRAI N2        330. 34      3. 640 No_date   29: 01    18. 83   n/ a      .000
06418>        [ L/ S/ n=  592. /  . 230/ . 043]
06419>        [ Vmax=  . 582:  Dmax=  1. 002]
06420> R0010: C00101 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06421>       CONTI NUOUS NASHYD      1. 0 01: D2             2. 28       .046 No_date   29: 04    29. 30   .453      .000
06422>        [ CN= 84. 0:  N= 3. 00:  Tp=  . 99]
06423>        [ I aREC= 4. 00:  SMN=  21. 09:  SMX= 140. 62:  SK=  . 010]
06424>        [ I nterEventTime=  12. 00]
06425> R0010: C00102 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06426>       CONTI NUOUS STANDHYD    1. 0 01: AI 7          12. 04      1. 618 No_date   28: 04    50. 29   .777      .000
06427>        [ XI MP=. 68:  TI MP=. 85]
06428>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06429>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06430>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI = 491. :  MNI =. 013:  SCI =    . 0]
06431>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06432> R0010: C00103 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06433>       ROUTE RESERVOIR ->      1. 0 02: AI 7          12. 04      1. 618 No_date   28: 04    50. 29   n/ a      .000
06434>                       out <=  1. 0 01: AI 7STR       12. 04       .460 No_date   28: 31    50. 29   n/ a      .000
06435>                  overflow <=  1. 0 03: AI 7OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06436> {MkStolked=. 2771E+00   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06437> R0010: C00104 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06438>       CONTI NUOUS STANDHYD    1. 0 01: ST- 4          .35       .046 No_date   28: 00    38. 69   .598      .000
06439>        [ XI MP=. 46:  TI MP=. 57]
06440>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06441>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06442>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI =  84. :  MNI =. 013:  SCI =    . 0]
06443>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06444> R0010: C00105 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06445>       ROUTE RESERVOIR ->      1. 0 02: ST- 4          .35       .046 No_date   28: 00    38. 69   n/ a      .000
06446>                       out <=  1. 0 01: ST4STR         .35       .031 No_date   28: 04    38. 69   n/ a      .000
06447>                  overflow <=  1. 0 03: ST4OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06448> {MkStolked=. 1424E- 02   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06449> R0010: C00106 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06450>       CONTI NUOUS STANDHYD    1. 0 01: AI 8           5. 30       .780 No_date   28: 02    50. 29   .777      .000
06451>        [ XI MP=. 68:  TI MP=. 85]
06452>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06453>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06454>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI = 326. :  MNI =. 013:  SCI =    . 0]
06455>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06456> R0010: C00107 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06457>       ROUTE RESERVOIR ->      1. 0 02: AI 8           5. 30       .780 No_date   28: 02    50. 29   n/ a      .000
06458>                       out <=  1. 0 01: AI 8STR        5. 30       .206 No_date   28: 27    50. 29   n/ a      .000
06459>                  overflow <=  1. 0 03: AI 8OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06460> {MkStolked=. 1232E+00   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06461> R0010: C00108 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06462>       ADD HYD                 1. 0 02: DRAI N2        330. 34      3. 640 No_date   29: 01    18. 83   n/ a      .000
06463>                           +   1. 0 02: D2              2. 28       .046 No_date   29: 04    29. 30   n/ a      .000
06464>                           +   1. 0 02: AI 7STR        12. 04       .460 No_date   28: 31    50. 29   n/ a      .000
06465>                           +   1. 0 02: AI 7OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06466>                           +   1. 0 02: ST4STR          .35       .031 No_date   28: 04    38. 69   n/ a      .000
06467>                           +   1. 0 02: ST4OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06468>                           +   1. 0 02: AI 8STR        5. 30       .206 No_date   28: 27    50. 29   n/ a      .000
06469>                           +   1. 0 02: AI 8OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06470>                       SUM=    1. 0 01: PT3ST4         350. 31      4. 213 No_date   28: 57    20. 48   n/ a      .000
06471> R0010: C00109 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06472>       ROUTE CHANNEL           ->      1. 0 02: PT3ST4         350. 31      4. 213 No_date   28: 57    20. 48   n/ a      .000
06473>        [ RDT= 1. 00]  out <-   1. 0 01: DRAI N3        350. 31      4. 037 No_date   29: 17    20. 48   n/ a      .000
06474>        [ L/ S/ n=  525. /  . 230/ . 043]
06475>        [ Vmax=  . 606:  Dmax=  1. 049]
06476> R0010: C00110 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06477>       CONTI NUOUS NASHYD      1. 0 01: D3             2. 51       .072 No_date   28: 44    32. 13   .497      .000
06478>        [ CN= 86. 0:  N= 3. 00:  Tp=  . 73]
06479>        [ I aREC= 4. 00:  SMN=  17. 43:  SMX= 116. 21:  SK=  . 010]
06480>        [ I nterEventTime=  12. 00]
06481> R0010: C00111 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06482>       CONTI NUOUS STANDHYD    1. 0 01: C1             3. 41       .523 No_date   28: 01    50. 29   .777      .000
06483>        [ XI MP=. 68:  TI MP=. 85]
06484>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06485>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06486>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI = 261. :  MNI =. 013:  SCI =    . 0]
06487>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06488> R0010: C00112 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06489>       ROUTE RESERVOIR ->      1. 0 02: C1             3. 41       .523 No_date   28: 01    50. 29   n/ a      .000
06490>                       out <=  1. 0 01: C1- STR        3. 41       .133 No_date   28: 25    50. 29   n/ a      .000
06491>                  overflow <=  1. 0 03: C1- OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06492> {MkStolked=. 7930E- 01   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06493> R0010: C00113 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06494>       CONTI NUOUS STANDHYD    1. 0 01: ST- 5          .45       .058 No_date   28: 00    38. 69   .598      .000
06495>        [ XI MP=. 46:  TI MP=. 57]
06496>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06497>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06498>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI =  95. :  MNI =. 013:  SCI =    . 0]
06499>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06500> R0010: C00114 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06501>       ROUTE RESERVOIR ->      1. 0 02: ST- 5          .45       .058 No_date   28: 00    38. 69   n/ a      .000
06502>                       out <=  1. 0 01: ST5STR         .45       .040 No_date   28: 04    38. 69   n/ a      .000
06503>                  overflow <=  1. 0 03: ST5OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06504> {MkStolked=. 1552E- 02   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06505> R0010: C00115 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06506>       ADD HYD                 1. 0 02: DRAI N3        350. 31      4. 037 No_date   29: 17    20. 48   n/ a      .000
06507>                           +   1. 0 02: D3              2. 51       .072 No_date   28: 44    32. 13   n/ a      .000
06508>                           +   1. 0 02: C1- STR         3. 41       .133 No_date   28: 25    50. 29   n/ a      .000
06509>                           +   1. 0 02: C1- OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06510>                           +   1. 0 02: ST5STR          .45       .040 No_date   28: 04    38. 69   n/ a      .000
06511>                           +   1. 0 02: ST5OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06512>                       SUM=    1. 0 01: ST5- E         356. 68      4. 181 No_date   29: 15    20. 87   n/ a      .000
06513> R0010: C00116 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06514>       CONTI NUOUS STANDHYD    1. 0 01: STRAND         7. 59       .759 No_date   28: 11    49. 05   n/ a      .000
06515>        [ XI MP=. 64:  TI MP=. 85]
06516>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06517>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  40. :  MNP=. 250:  SCP=     . 0]
06518>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI =1230. :  MNI =. 013:  SCI =    . 0]
06519>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06520> R0010: C00117 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06521>       ROUTE RESERVOIR ->      1. 0 02: STRAND         7. 59       .759 No_date   28: 11    49. 05   n/ a      .000
06522>                       out <=  1. 0 01: S- POND        7. 59       .066 No_date   29: 41    49. 05   n/ a      .000
06523>                  overflow <=  1. 0 03: S- OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06524> {MkStolked=. 2593E+00   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06525> R0010: C00118 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06526>       ADD HYD                 1. 0 02: ST5- E         356. 68      4. 181 No_date   29: 15    20. 87   n/ a      .000
06527>                           +   1. 0 02: S- POND         7. 59       .066 No_date   29: 41    49. 05   n/ a      .000
06528>                           +   1. 0 02: S- OVF           .00       .000 No_date   0: 00      .00    n/ a      .000
06529>                       SUM=    1. 0 01: SSAOUT         364. 27      4. 242 No_date   29: 15    21. 45   n/ a      .000
06530> R0010: C00119 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06531>       SAVE HYD                1. 0 01: SSAOUT         364. 27      4. 242 No_date   29: 15    21. 45   n/ a      .000
06532>        f name : SSAOUT. 0010
06533>        remark: SSAOUT
06534> R0010: C00120 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06535>       CONTI NUOUS STANDHYD    1. 0 01: Area- A        66. 75      6. 470 No_date   28: 10    48. 24   .746      .000
06536>        [ XI MP=. 64:  TI MP=. 80]
06537>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06538>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06539>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI =1155. :  MNI =. 013:  SCI =    . 0]
06540>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06541> R0010: C00121 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06542>       SAVE HYD                1. 0 01: Area- A        66. 75      6. 470 No_date   28: 10    48. 24   n/ a      .000
06543>        f name : Area- A 0010
06544>        remark: SMWF- A I nflow
06545> R0010: C00122 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06546>       ROUTE RESERVOIR ->      1. 0 02: Area- A        66. 75      6. 470 No_date   28: 10    48. 24   n/ a      .000
06547>                       out <=  1. 0 01: SWMF- A        66. 75       .465 No_date   29: 54    48. 24   n/ a      .000
06548>                  overflow <=  1. 0 03: SWMAOV          .00       .000 No_date   0: 00      .00    n/ a      .000
06549> {MkStolked=. 2359E+01   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06550> R0010: C00123 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06551>       SAVE HYD                1. 0 01: SWMF- A        66. 75       .465 No_date   29: 54    48. 24   n/ a      .000
06552>        f name : SWMF- A 0010
06553>        remark: SMWF- A Out f low
06554> R0010: C00124 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06555>       ADD HYD                 1. 0 02: SSAOUT         364. 27      4. 242 No_date   29: 15    21. 45   n/ a      .000
06556>                           +   1. 0 02: SWMF- A         66. 75       .465 No_date   29: 54    48. 24   n/ a      .000
06557>                           +   1. 0 02: SWMAOV            .00       .000 No_date   0: 00      .00    n/ a      .000
06558>                       SUM=    1. 0 01: PT4STS         431. 02      4. 657 No_date   29: 18    25. 60   n/ a      .000
06559> R0010: C00125 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06560>       CONTI NUOUS STANDHYD    1. 0 01: C6             1. 87       .301 No_date   28: 01    50. 29   .777      .000
06561>        [ XI MP=. 68:  TI MP=. 85]
06562>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06563>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06564>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI = 193. :  MNI =. 013:  SCI =    . 0]
06565>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06566> R0010: C00126 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06567>       ROUTE RESERVOIR ->      1. 0 02: C6             1. 87       .301 No_date   28: 01    50. 29   n/ a      .000
06568>                       out <=  1. 0 01: C6- STR        1. 87       .074 No_date   28: 22    50. 29   n/ a      .000
06569>                  overflow <=  1. 0 03: C6- OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06570> {MkStolked=. 4376E- 01   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06571> R0010: C00127 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06572>       CONTI NUOUS STANDHYD    1. 0 01: C7             1. 62       .262 No_date   28: 01    50. 29   .777      .000
06573>        [ XI MP=. 68:  TI MP=. 85]
06574>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06575>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06576>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI = 180. :  MNI =. 013:  SCI =    . 0]
06577>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06578> R0010: C00128 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06579>       ROUTE RESERVOIR ->      1. 0 02: C7             1. 62       .262 No_date   28: 01    50. 29   n/ a      .000
06580>                       out <=  1. 0 01: C7- STR        1. 62       .064 No_date   28: 22    50. 29   n/ a      .000
06581>                  overflow <=  1. 0 03: C7- OVF         .00       .000 No_date   0: 00      .00    n/ a      .000
06582> {MkStolked=. 3781E- 01   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06583> R0010: C00129 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06584>       CONTI NUOUS STANDHYD    1. 0 01: ST- 6           .41       .053 No_date   28: 00    38. 69   .598      .000
06585>        [ XI MP=. 46:  TI MP=. 57]
06586>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06587>        [ Pervious      area:  I Aper= 4. 67:  SLPP=  50:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06588>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =  50:  LGI =  91. :  MNI =. 013:  SCI =    . 0]
06589>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06590> R0010: C00130 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06591>       ROUTE RESERVOIR ->      1. 0 02: ST- 6           .41       .053 No_date   28: 00    38. 69   n/ a      .000
06592>                       out <=  1. 0 01: ST6STR          .41       .036 No_date   28: 04    38. 69   n/ a      .000
06593>                  overflow <=  1. 0 03: ST6OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06594> {MkStolked=. 1514E- 02   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06595> R0010: C00131 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06596>       ADD HYD                 1. 0 02: PT4STS         431. 02      4. 657 No_date   29: 18    25. 60   n/ a      .000
06597>                           +   1. 0 02: C6- STR         1. 87       .074 No_date   28: 22    50. 29   n/ a      .000
06598>                           +   1. 0 02: C6- OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06599>                           +   1. 0 02: C7- STR         1. 62       .064 No_date   28: 22    50. 29   n/ a      .000
06600>                           +   1. 0 02: C7- OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06601>                           +   1. 0 02: ST6STR          .41       .036 No_date   28: 04    38. 69   n/ a      .000
06602>                           +   1. 0 02: ST6OVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06603>                       SUM=    1. 0 01: PT5STS         434. 92      4. 740 No_date   29: 18    25. 81   n/ a      .000
06604> R0010: C00132 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06605>       ROUTE CHANNEL           ->      1. 0 02: PT5STS         434. 92      4. 740 No_date   29: 18    25. 81   n/ a      .000
06606>        [ RDT= 1. 00]  out <-   1. 0 01: DRAI N4        434. 92      4. 599 No_date   29: 31    25. 81   n/ a      .000
06607>        [ L/ S/ n=  324. /  . 100/ . 043]
06608>        [ Vmax=  . 468:  Dmax=  1. 312]
06609> R0010: C00133 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06610>       CONTI NUOUS NASHYD      1. 0 01: D4             1. 73       .063 No_date   28: 35    34. 48   .533      .000
06611>        [ CN= 88. 0:  N= 3. 00:  Tp=  . 50]
06612>        [ I aREC= 4. 00:  SMN=  14. 94:  SMX=  99. 61:  SK=  . 010]
06613>        [ I nterEventTime=  12. 00]
06614> R0010: C00134 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06615>       CONTI NUOUS STANDHYD    1. 0 01: Area- B        24. 04      3. 287 No_date   28: 03    47. 09   .728      .000
06616>        [ XI MP=. 62:  TI MP=. 77]
06617>        [ Hor ton parameters:  Fo=  76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  . 00]
06618>        [ Pervious      area:  I Aper= 4. 67:  SLPP=1. 40:  LGP=  50. :  MNP=. 250:  SCP=     . 0]
06619>        [ I mpervious   area:  I AI mp= 1. 57:  SLPI =1. 40:  LGI = 693. :  MNI =. 013:  SCI =    . 0]
06620>        [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
06621> R0010: C00135 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06622>       ROUTE RESERVOIR ->      1. 0 02: Area- B        24. 04      3. 287 No_date   28: 03    47. 09   n/ a      .000
06623>                       out <=  1. 0 01: SWMF- B        24. 04       .356 No_date   28: 50    47. 09   n/ a      .000
06624>                  overflow <=  1. 0 03: SWBOVF          .00       .000 No_date   0: 00      .00    n/ a      .000
06625> {MkStolked=. 7142E+00   m3,  TotOrVol =. 0000E+00   m3,  N- Or f =      0,  TotDurOr f =     0. hrs }
06626> R0010: C00136 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06627>       ADD HYD                 1. 0 02: DRAI N4        434. 92      4. 599 No_date   29: 31    25. 81   n/ a      .000
06628>                           +   1. 0 02: D4              1. 73       .063 No_date   28: 35    34. 48   n/ a      .000
06629>                           +   1. 0 02: SWMF- B         24. 04       .356 No_date   28: 50    47. 09   n/ a      .000
06630>                           +   1. 0 02: SWBOVF           .00       .000 No_date   0: 00      .00    n/ a      .000
06631>                       SUM=    1. 0 01: DRAI EX        460. 69      4. 958 No_date   29: 31    26. 95   n/ a      .000
06632> R0010: C00137 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06633>       ROUTE CHANNEL           ->      1. 0 02: D4- EX         460. 69      4. 958 No_date   29: 31    26. 95   n/ a      .000
06634>        [ RDT= 1. 00]  out <-   1. 0 01: DRAI NS        460. 69      4. 881 No_date   29: 37    26. 95   n/ a      .000
06635>        [ L/ S/ n=  413. /  . 160/ . 033]
06636>        [ Vmax=  . 599:  Dmax=  . 896]
06637> R0010: C00138 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06638>       CONTI NUOUS NASHYD      1. 0 01: D5             1. 90       .057 No_date   28: 41    32. 13   .497      .000
06639>        [ CN= 86. 0:  N= 3. 00:  Tp=  . 69]
06640>        [ I aREC= 4. 00:  SMN=  17. 43:  SMX= 116. 21:  SK=  . 010]
06641>        [ I nterEventTime=  12. 00]
06642> R0010: C00139 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06643>       CONTI NUOUS NASHYD      1. 0 01: O- 13SDF        9. 74       .371 No_date   28: 22    30. 32   .469      .000
06644>        [ CN= 81. 0:  N= 3. 00:  Tp=  . 43]
06645>        [ I aREC= 4. 00:  SMN=  25. 21:  SMX= 168. 09:  SK=  . 010]
06646>        [ I nterEventTime=  12. 00]
06647> R0010: C00140 ---------- DTmin-I D: NHYD ---------- AREAha - QPEAKcms - TpeakDate_hh:mm - - - RVmm R. C. - - - DWFcms
06648>       ROUTE RESERVOIR ->      1. 0 02: O- 13SDF        9. 74       .371 No_date   28: 22    30. 32   n/ a      .000
06649>                       out <=  1. 0 01: O- 14           9. 74       .040 No_date   31: 17    30. 32   n/ a      .000
06650>                  overflow <=  1. 0 03: OVFSDF          .00       .000 No_date
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06733>                +     1.0 02: S: 1- D2R          18.67        .163 No_date    29:23   48.63   n/a      .000
06734>                +     1.0 02: S: 1- D3R           6.79        .060 No_date    29:16   48.93   n/a      .000
06735>                +     1.0 02: S: 1- D3Rovf         .00        .000 No_date     0:00     .00   n/a      .000
06736>                +     1.0 02: S: 1- D3Rovf         .00        .000 No_date     0:00     .00   n/a      .000
06737>              SUM=    1.0 01: SN_OK          53577.82      86.110 No_date    33:41   22.63   n/a      .000
06738> R0010: C00156- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06739>     SAVE HYD              1.0 01: SN_OK          53577.82      86.110 No_date    33:41   22.63   n/a      .000
06740>       fname : SN_OK 0010
06741>       remark: Total Flows at Okeefe Drain
06742> #
06743> # Hydrograph from Node Okeefe routed to Node at Foster Drain
06744> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
06745> #
06746> R0010: C00157- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06747>     ROUTE CHANNEL         1.0 02: SN_OK          53577.82      86.110 No_date    33:41   22.63   n/a      .000
06748>       [ RDT= 1. 00] out <-  1.0 01: N_FO          53577.82      85.870 No_date    34:07   22.63   n/a      .000
06749>       [ L/ S/ n=  1183. /  .076/ . 035]
06750>       [ Vmax= 1. 104: Dmax= 2. 866]
06751> #*************************************************************************
06752> #     Catchment FOSTER
06753> #     - To Foster Ditch (north of the Jock)
06754> #     - Partially developed (medium density); remaining agricultural
06755> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
06756> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to ( 307.98 HA) after increasing Okeefe drainage area to (5
06757> #     - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
06758> #*************************************************************************
06759> R0010: C00158- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06760>     CONTI NUOUS STANDHYD   1.0 01: FOSTER          325.44      22.870 No_date    28: 13   43.99   .680     .000
06761>       [ XI M=. 55: TI MP=. 55]
06762>       [ LOSS= 2 : CN= 74. 0]
06763>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGI P=  40. : MNP=. 250: SCP=    .0]
06764>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =1473. : MNI =. 013: SCI =    .0]
06765>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06766>       [ SMN= 36. 67: SMX= 244. 49: SK= . 010]
06767> #*************************************************************************
06768> #     Foster Pond
06769> #     - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
06770> #       and a ratio of the catchment area to the West Clarke pond rating curve
06771> #       from the MOE for the next coordinates
06772> #*************************************************************************
06773> R0010: C00159- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06774>     ROUTE RESERVOI R       1.0 02: FOSTER          325.44      22.870 No_date    28: 13   43.99   n/a      .000
06775>                  out <=   1.0 01: P_FOS           325.44       6.061 No_date    29:06    43.99   n/a      .000
06776>                overflow <= 1.0 03: FO- OVF           .00        .000 No_date     0:00     .00   n/a      .000
06777>       {Mi St ol ked=. 5862E+01  m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06778> R0010: C00160- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06779>     ADD HYD               1.0 02: P_FOS           325.44       6.061 No_date    29:06    43.99   n/a      .000
06780>                  +       1.0 02: FO- OVF           .00        .000 No_date     0:00     .00   n/a      .000
06781>                SUM=      1.0 01: FOSTER- OUT     325.44       6.061 No_date    29:06    43.99   n/a      .000
06782> #*************************************************************************
06783> R0010: C00161- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06784>     CONTI NUOUS STANDHYD   1.0 01: W_CLAR_BRA       73.29       7.523 No_date    28: 05   47.94   .741     .000
06785>       [ XI M=. 60: TI MP=. 65]
06786>       [ LOSS= 2 : CN= 77. 0]
06787>       [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGI P=  40. : MNP=. 250: SCP=    .0]
06788>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  699. : MNI =. 013: SCI =    .0]
06789>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06790>       [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
06791> R0010: C00162- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06792>     ROUTE RESERVOI R       1.0 02: W_CLAR_BRA      73.29       7.523 No_date    28: 05   47.94   n/a      .000
06793>                  out <=   1.0 01: MS_P10           73.29       1.136 No_date    29:00    47.94   n/a      .000
06794>                overflow <= 1.0 03: P10- OVF          .00        .000 No_date     0:00     .00   n/a      .000
06795>       {Mi St ol ked=. 1341E+01  m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06796> R0010: C00163- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06797>     CONTI NUOUS STANDHYD   1.0 01: S- 1- FO- D2      4. 94        .594 No_date    28: 01   43.99   .680     .000
06798>       [ XI M=. 55: TI MP=. 55]
06799>       [ LOSS= 2 : CN= 74. 0]
06800>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGI P=  40. : MNP=. 250: SCP=    .0]
06801>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  181. : MNI =. 013: SCI =    .0]
06802>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06803>       [ SMN= 36. 67: SMX= 244. 49: SK= . 010]
06804> R0010: C00164- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06805>     COMPUTE DUALHYD        1.0 01: S- 1- FO- D2      4. 94        .594 No_date    28: 01   43.99   n/a      .000
06806>       Major System   /     1.0 02: S- 1- FO- D2I        .00        .000 No_date     0:00     .00   n/a      .000
06807>       Minor System   \     1.0 03: S- 1- FO- D2N       4. 94        .508 No_date    27: 57   44. 15   n/a      .000
06808>       {Mj Sys St ow=. 2536E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06809> R0010: C00165- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06810>     ADD HYD               1.0 02: S- 1- FO- D2J        .00        .000 No_date     0:00     .00   n/a      .000
06811>                  +       1.0 02: S- 1- FO- D2N       4. 94        .508 No_date    27: 57   44. 15   n/a      .000
06812>                SUM=      1.0 01: S- 1- FO- D2S       4. 94        .508 No_date    27: 57   44. 15   n/a      .000
06813> R0010: C00166- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06814>     ROUTE RESERVOI R - >   1.0 02: S- 1- FO- D2S       4. 94        .508 No_date    27: 57   44. 15   n/a      .000
06815>                  out <=   1.0 01: S- 1- FO- D2R       4. 94        .039 No_date    29: 33   44. 15   n/a      .000
06816>                overflow <= 1.0 03: S- 1FOD2ovf          .00        .000 No_date     0:00     .00   n/a      .000
06817>       {Mi St ol ked=. 1298E+00  m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06818> R0010: C00167- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06819>     ADD HYD               1.0 02: FOSTER- OUT     325.44       6.061 No_date    29:06    43.99   n/a      .000
06820>                  +       1.0 02: S- 1- FO- D2R       4. 94        .039 No_date    29: 33   44. 15   n/a      .000
06821>                  +       1.0 02: S- 1FOD2ovf          .00        .000 No_date     0:00     .00   n/a      .000
06822>                SUM=      1.0 01: 980            330. 38      6. 100 No_date    29:06    43.99   n/a      .000
06823> R0010: C00168- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06824>     SAVE HYD              1.0 01: 980            330. 38      6. 100 No_date    29:06    43.99   n/a      .000
06825>       fname : 980. 0010
06826>       remark: Total Flows at Station 980 on Foster Drain
06827> #
06828> # Hydrograph from Node Foster SWM ( Station 980) to Node at station 520
06829> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
06830> #
06831> R0010: C00169- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06832>     ROUTE CHANNEL         -> 1.0 02: 980            330. 38      6. 100 No_date    29:06    43.99   n/a      .000
06833>       [ RDT= 1. 00] out <-  1.0 01: 980- out        330. 38      5. 927 No_date    29: 17   43.99   n/a      .000
06834>       [ L/ S/ n=  460. /  . 043/ . 035]
06835>       [ Vmax=  . 634: Dmax= 1. 379]
06836> R0010: C00170- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06837>     CONTI NUOUS STANDHYD   1.0 01: S- 1- FO- DI         5. 11        .702 No_date    28: 00   48.24   .746     .000
06838>       [ XI M=. 65: TI MP=. 65]
06839>       [ LOSS= 2 : CN= 77. 0]
06840>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGI P=  40. : MNP=. 250: SCP=    .0]
06841>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  185. : MNI =. 013: SCI =    .0]
06842>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06843>       [ SMN= 36. 67: SMX= 244. 49: SK= . 010]
06844> R0010: C00171- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06845>     COMPUTE DUALHYD        5. 11        .702 No_date    28: 00   48.24   n/a      .000
06846>       Major System   /     1.0 02: S- 1- FO- DI I       .00        .000 No_date     0:00     .00   n/a      .000
06847>       Minor System   \     1.0 03: S- 1- FO- DI N      5. 11        .605 No_date    28: 07   48.27   n/a      .000
06848>       {Mj Sys St ow=. 2822E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06849> R0010: C00172- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06850>     ADD HYD               1.0 02: S- 1- FO- DIN       5. 11        .605 No_date    27: 57   48.27   n/a      .000
06851>                  +       1.0 02: S- 1- FO- DI I       .00        .000 No_date     0:00     .00   n/a      .000
06852>                SUM=      1.0 01: S- 1- FO- DIS       5. 11        .605 No_date    27: 57   48.27   n/a      .000
06853> R0010: C00173- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06854>     ROUTE RESERVOI R - >   1.0 02: S- 1- FO- DIS       5. 11        .605 No_date    27: 57   48.27   n/a      .000
06855>                  out <=   1.0 01: S- 1- FO- DIR       5. 11        .044 No_date    29: 26   48.27   n/a      .000
06856>                overflow <= 1.0 03: S- 1FODIovf          .00        .000 No_date     0:00     .00   n/a      .000
06857>       {Mi St ol ked=. 2048E+00  m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06858> R0010: C00174- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06859>     ADD HYD               1.0 02: 980- out        330. 38      5. 927 No_date    29: 17   43.99   n/a      .000
06860>                  +       1.0 02: S- 1- FO- DIR       5. 11        .044 No_date    29: 26   48.27   n/a      .000
06861>                  +       1.0 02: S- 1FODIovf          .00        .000 No_date     0:00     .00   n/a      .000
06862>                SUM=      1.0 01: 520            335. 49      5. 972 No_date    29: 17   44.06   n/a      .000
06863> R0010: C00175- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06864>     SAVE HYD              1.0 01: 520            335. 49      5. 972 No_date    29: 17   44.06   n/a      .000
06865>       fname : 520. 0010
06866>       remark: Total Flows at Satio 520 on Foster Drain
06867> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
06868> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
06869> #
06870> R0010: C00176- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06871>     ROUTE CHANNEL         -> 1.0 02: 520            335. 49      5. 972 No_date    29: 17   44.06   n/a      .000
06872>       [ RDT= 1. 00] out <-  1.0 01: 520- out        335. 49      5. 909 No_date    29: 24   44.06   n/a      .000
06873>       [ L/ S/ n=  860. /  . 587/ . 035]
06874>       [ Vmax=  1. 391: Dmax=  . 659]
06875> R0010: C00177- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06876>     CONTI NUOUS STANDHYD   1.0 01: S- 1- FO- F- D      14. 96      1. 881 No_date    28: 02   48.24   .746     .000
06877>       [ XI M=. 65: TI MP=. 65]
06878>       [ LOSS= 2 : CN= 74. 0]
06879>       [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGI P=  40. : MNP=. 250: SCP=    .0]
06880>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  316. : MNI =. 013: SCI =    .0]
06881>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06882>       [ SMN= 36. 67: SMX= 244. 49: SK= . 010]
06883> R0010: C00178- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06884>     COMPUTE DUALHYD       1.0 01: S- 1- FO- F- D      14. 96      1. 881 No_date    28: 02   48.24   n/a      .000
06885>       Major System   /     1.0 02: S- 1FO- F- DI        .00        .000 No_date     0:00     .00   n/a      .000
06886>       Minor System   \     1.0 03: S- 1FO- F- DN      14. 96      1. 615 No_date    27: 58   48.25   n/a      .000
06887>       {Mj Sys St ow=. 8828E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06888> R0010: C00179- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06889>     ADD HYD               1.0 02: S- 1FO- F- DI        .00        .000 No_date     0:00     .00   n/a      .000
06890>                  +       1.0 02: S- 1FO- F- DN      14. 96      1. 615 No_date    27: 58   48.25   n/a      .000
06891>                SUM=      1.0 01: S- 1FO- F- DS      14. 96      1. 615 No_date    27: 58   48.25   n/a      .000
06892> R0010: C00180- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06893>     ROUTE RESERVOI R - >   1.0 02: S- 1FO- F- DS      14. 96      1. 615 No_date    27: 58   48.25   n/a      .000
06894>                  out <=   1.0 01: S- 1FO- F- DR      14. 96       .130 No_date    29: 31   48.25   n/a      .000
06895>                overflow <= 1.0 03: S- 1FoFDovf          .00        .000 No_date     0:00     .00   n/a      .000
06896>       {Mi St ol ked=. 4323E+00  m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06897> R0010: C00181- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06898>     CONTI NUOUS STANDHYD   1.0 01: S- 1- D8           5. 27        .781 No_date    28: 01   35.83   .554     .000
06899>       [ XI M=. 32: TI MP=. 65]
06900>       [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    Fe= . 00]
06901>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGI P=  40. : MNP=. 250: SCP=    .0]
06902>       [ Impervious    area: I Aimp=  . 79: SLPI =  . 75: LGI =  187. : MNI =. 013: SCI =    .0]
06903>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06904> R0010: C00182- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06905>     COMPUTE DUALHYD       1.0 01: S- 1- D8           5. 27        .781 No_date    28: 01   35.83   n/a      .000
06906>       Major System   /     1.0 02: S- 1- D8J            .00        .000 No_date     0:00     .00   n/a      .000
06907>       Minor System   \     1.0 03: S- 1- D8N          5. 27        .672 No_date    27: 58   35.92   n/a      .000
06908>       {Mj Sys St ow=. 3074E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06909> R0010: C00183- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06910>     ADD HYD               1.0 02: S- 1- D8J            .00        .000 No_date     0:00     .00   n/a      .000
06911>                  +       1.0 02: S- 1- D8N          5. 27        .672 No_date    27: 58   35.92   n/a      .000
06912>                SUM=      1.0 01: S- 1- D8S          5. 27        .672 No_date    27: 58   35.92   n/a      .000
06913> R0010: C00184- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06914>     ROUTE RESERVOI R - >   1.0 02: S- 1- D8S          5. 27        .672 No_date    27: 58   35.92   n/a      .000
06915>                  out <=   1.0 01: S- 1- D8R          5. 27        .042 No_date    28: 48   35.92   n/a      .000
06916>                overflow <= 1.0 03: S- 1- D8Rovf          .00        .000 No_date     0:00     .00   n/a      .000
06917>       {Mi St ol ked=. 1398E+00  m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06918> R0010: C00185- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06919>     CONTI NUOUS NASHYD     1.0 01: S- 1- A           75. 88      1. 915 No_date    28: 36   26.85   .415     .000
06920>       [ CN= 77. 0:  N= 3. 00:  Tp=   . 62]
06921>       [ I aREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK=  . 010]
06922>       [ I nterEvent Ti me=  12. 00]
06923> R0010: C00186- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06924>     CONTI NUOUS NASHYD     1.0 01: W_CLAR_UND       35. 65       .596 No_date    29: 11   26.85   .415     .000
06925>       [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
06926>       [ I aREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK=  . 010]
06927>       [ I nterEvent Ti me=  12. 00]
06928> R0010: C00187- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06929>     ADD HYD               1.0 02: N_FO           53577. 82    85. 870 No_date    34:07   22.63   n/a      .000
06930>                  +       1.0 02: 520- out         335. 49      5. 909 No_date    29: 24   44.06   n/a      .000
06931>                  +       1.0 02: MS_P10            73. 29      1. 136 No_date    29:00    47.94   n/a      .000
06932>                  +       1.0 02: P10- OVF             .00        .000 No_date     0:00     .00   n/a      .000
06933>                  +       1.0 02: W_CLAR_UND       35. 65       .596 No_date    29: 11   26.85   n/a      .000
06934>                  +       1.0 02: S- 1FoFDovf          .00        .000 No_date     0:00     .00   n/a      .000
06935>                  +       1.0 02: S- 1FO- F- DR      14. 96       .130 No_date    29: 31   48.25   n/a      .000
06936>                  +       1.0 02: S- 1- D8Rovf         .00        .000 No_date     0:00     .00   n/a      .000
06937>                  +       1.0 02: S- 1- D8R           5. 27        .042 No_date    28: 48   35.92   n/a      .000
06938>                  +       1.0 02: S- 1- A            75. 88      1. 915 No_date    28: 36   26.85   n/a      .000
06939>                SUM=      1.0 01: SN_FO          54118. 36    89. 426 No_date    33:26   22.82   n/a      .000
06940> R0010: C00188- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06941>     SAVE HYD              1.0 01: SN_FO          54118. 36    89. 426 No_date    33:26   22.82   n/a      .000
06942>       fname : SN_FO 0010
06943>       remark: Total Flows at Foster Drain
06944> # Hydrograph from Node Foster routed to Node at Cedarview Road
06945> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
06946> #
06947> R0010: C00189- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06948>     ROUTE CHANNEL         -> 1.0 02: SN_FO          54118. 36    89. 426 No_date    33:26   22.82   n/a      .000
06949> *     [ RDT= 1. 00] out <-  1.0 01: N_CE          54118. 36    89. 319 No_date    33:44   22.82   n/a      .000
06950>       [ L/ S/ n=  159. /  . 082/ . 035]
06951>       [ Vmax= 1. 329: Dmax= 3. 419]
06952> #*************************************************************************
06953> #     Catchment S- 1
06954> #     - To Jock River (north and south of Jock)
06955> #     - Primarily agricultural fields; portion of sand quarry
06956> #*************************************************************************
06957> R0010: C00190- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06958>     CONTI NUOUS NASHYD     1.0 01: S- 1- B            55. 36      1. 740 No_date    28: 24   26.85   .415     .000
06959>       [ CN= 77. 0:  N= 3. 00:  Tp=  . 45]
06960>       [ I aREC= 4. 00:  SM N= 31. 15:  SMX= 207. 66:  SK=  . 010]
06961>       [ I nterEvent Ti me=  12. 00]
06962> #     -  JFSA 2021-02-24 change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
06963> #     -  JFSA 2021-02-24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymore.  "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
06964> #     -  JFSA 2021-01-19,  after riding Greenbank pond,  "S- 1- BCDC- 3" is not existing anymore
06965> R0010: C00191- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06966>     CONTI NUOUS STANDHYD   1.0 01: S- 1- DI           21. 67      2. 814 No_date    28: 02   48.63   .752     .000
06967>       [ XI M=. 65: TI MP=. 65]
06968>       [ LOSS= 2 : CN=  75. 0]
06969>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGI P=  40. : MNP=. 250: SCP=    .0]
06970>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  380. : MNI =. 013: SCI =    .0]
06971>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06972>       [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
06973> R0010: C00192- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06974>     COMPUTE DUALHYD        1.0 01: S- 1- DI           21. 67      2. 814 No_date    28: 02   48.63   n/a      .000
06975>       Major System   /     1.0 02: S- 1- DIJ            .00        .000 No_date     0:00     .00   n/a      .000
06976>       Minor System   \     1.0 03: S- 1- DIN          21. 67      2. 409 No_date    27: 58   48.83   n/a      .000
06977>       {Mj Sys St ow=. 1351E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06978> R0010: C00193- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06979>     ADD HYD               1.0 02: S- 1- DIJ            .00        .000 No_date     0:00     .00   n/a      .000
06980>                  +       1.0 02: S- 1- DIN          21. 67      2. 409 No_date    27: 58   48.83   n/a      .000
06981>                SUM=      1.0 01: S- 1- DIS          21. 67      2. 409 No_date    27: 58   48.83   n/a      .000
06982> R0010: C00194- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06983>     ROUTE RESERVOI R - >   1.0 02: S- 1- DIS          21. 67      2. 409 No_date    27: 58   48.83   n/a      .000
06984>                  out <=   1.0 01: S- 1- DIR          21. 67       .191 No_date    29: 23   48.83   n/a      .000
06985>                overflow <= 1.0 03: S- 1- DIRovf          .00        .000 No_date     0:00     .00   n/a      .000
06986>       {Mi St ol ked=. 6364E+00  m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
06987> R0010: C00195- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06988>     CONTI NUOUS STANDHYD   1.0 01: S- 1- DH           3. 28       .489 No_date    28: 00   48.63   .752     .000
06989>       [ XI M=. 65: TI MP=. 65]
06990>       [ LOSS= 2 : CN=  75. 0]
06991>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGI P=  40. : MNP=. 250: SCP=    .0]
06992>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  148. : MNI =. 013: SCI =    .0]
06993>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
06994>       [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
06995> R0010: C00196- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
06996>     COMPUTE DUALHYD        1.0 01: S- 1- DH           3. 28       .489 No_date    28: 00   48.63   n/a      .000
06997>       Major System   /     1.0 02: S- 1- DHJ            .00        .000 No_date     0:00     .00   n/a      .000
06998>       Minor System   \     1.0 03: S- 1- DHN          3. 28       .421 No_date    27: 56   48.79   n/a      .000
06999>       {Mj Sys St ow=. 1840E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
07000> R0010: C00197- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07001>     ADD HYD               1.0 02: S- 1- DHJ            .00        .000 No_date     0:00     .00   n/a      .000
07002>                  +       1.0 02: S- 1- DHN          3. 28       .421 No_date    27: 56   48.79   n/a      .000
07003>                SUM=      1.0 01: S- 1- DHS          3. 28       .421 No_date    27: 56   48.79   n/a      .000
07004> R0010: C00198- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07005>     ROUTE RESERVOI R - >   1.0 02: S- 1- DHS          3. 28       .421 No_date    27: 56   48.79   n/a      .000
07006>                  out <=   1.0 01: S- 1- DHR          3. 28       .029 No_date    29: 14   48.79   n/a      .000
07007>                overflow <= 1.0 03: S- 1- DHRovf          .00        .000 No_date     0:00     .00   n/a      .000
07008>       {Mi St ol ked=. 9630E-01  m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
07009> R0010: C00199- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07010>     CONTI NUOUS STANDHYD   1.0 01: S- 1- DS           12. 84      1. 749 No_date    28: 01   48.63   .752     .000
07011>       [ XI M=. 65: TI MP=. 65]
07012>       [ LOSS= 2 : CN=  75. 0]
07013>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGI P=  40. : MNP=. 250: SCP=    .0]
07014>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  293. : MNI =. 013: SCI =    .0]
07015>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
07016>       [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
07017> R0010: C00200- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07018>     COMPUTE DUALHYD        1.0 01: S- 1- DS           12. 84      1. 749 No_date    28: 01   48.63   n/a      .000
07019>       Major System   /     1.0 02: S- 1- DSJ            .00        .000 No_date     0:00     .00   n/a      .000
07020>       Minor System   \     1.0 03: S- 1- DSN          12. 84      1. 500 No_date    28: 09   48.75   n/a      .000
07021>       {Mj Sys St ow=. 7643E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
07022> R0010: C00201- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07023>     ADD HYD               1.0 02: S- 1- DSJ            .00        .000 No_date     0:00     .00   n/a      .000
07024>                  +       1.0 02: S- 1- DSN          12. 84      1. 500 No_date    27: 57   48.75   n/a      .000
07025>                SUM=      1.0 01: S- 1- DSS          12. 84      1. 500 No_date    27: 57   48.75   n/a      .000
07026> R0010: C00202- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07027>     ROUTE RESERVOI R - >   1.0 02: S- 1- DSS          12. 84      1. 500 No_date    27: 57   48.75   n/a      .000
07028>                  out <=   1.0 01: S- 1- DSR          12. 84      1. 113 No_date    29: 20   48.75   n/a      .000
07029>                overflow <= 1.0 03: S- 1- DSRovf          .00        .000 No_date     0:00     .00   n/a      .000
07030>       {Mi St ol ked=. 3763E+00  m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
07031> R0010: C00203- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07032>     CONTI NUOUS STANDHYD   1.0 01: S- 1- D6           1. 75       .269 No_date    28: 00   48.63   .752     .000
07033>       [ XI M=. 65: TI MP=. 65]
07034>       [ LOSS= 2 : CN=  75. 0]
07035>       [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGI P=  40. : MNP=. 250: SCP=    .0]
07036>       [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI =  108. : MNI =. 013: SCI =    .0]
07037>       [ I aREC mp=    4. 00: I aREC per=    4. 00]
07038>       [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
07039> R0010: C00204- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07040>     COMPUTE DUALHYD        1.0 01: S- 1- D6           1. 75       .269 No_date    28: 00   48.63   n/a      .000
07041>       Major System   /     1.0 02: S- 1- D6J            .00        .000 No_date     0:00     .00   n/a      .000
07042>       Minor System   \     1.0 03: S- 1- D6N          1. 75       .232 No_date    27: 55   48.88   n/a      .000
07043>       {Mj Sys St ow=. 9605E+01,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hr s}
07044> R0010: C00205- ---------- DTmin- I D: N HYD- --------- AREAha- QPEAKcms- TpeakDat e_hh: mm - - - - RVmm R. C. - - - DWFcms
07045>     ADD HYD               1.0 02: S- 1- D6J            .00        .000 No_date     0:00
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07107> R0010: C00215-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07108>      SAVE HYD                    1. 0 01: W_CLAR          119. 40     12. 497 No_date   28: 05    47. 94   n/a      .000
07109>        fname: .W_CLAR. 0010
07110>        remark: Total Flows to West Clarke
07111> #*************************************************************************
07112> #      West Clarke Pond 2
07113> #   - Rating curve obtained from Barrhaven South MSS modeling
07114> #     - Tributary Drainage Area to MSS Pond 2 = 241 ha
07115> #*************************************************************************
07116> R0010: C00216-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07117>      ROUTE RESERVOIR -->         1. 0 02: W_CLAR          119. 40     12. 497 No_date   28: 05    47. 94   n/a      .000
07118>                      out <-      1. 0 01: MS_P2           119. 40      3. 959 No_date   28: 33    47. 94   n/a      .000
07119>                   overflow <=    1. 0 03: P2- OVF           .00           .000 No_date    0: 00      .00   n/a      .000
07120>        [MxStoSked=. 2802E+01   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07121> #*************************************************************************
07122> R0010: C00217-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07123>      ADD HYD                     1. 0 02: N_CE          54118. 36     89. 319 No_date   33: 44    22. 82   n/a      .000
07124>                              +   1. 0 02: S- 1- D4R          3. 28       .029 No_date   29: 14    48. 79   n/a      .000
07125>                              +   1. 0 02: S- 1- D5R         12. 84       .113 No_date   29: 20    48. 75   n/a      .000
07126>                              +   1. 0 02: S- 1- D4Rovf         .00           .000 No_date    0: 00      .00   n/a      .000
07127>                              +   1. 0 02: S- 1- D5Rovf         .00           .000 No_date    0: 00      .00   n/a      .000
07128>                              +   1. 0 02: MS_P2           119. 40      3. 959 No_date   28: 33    47. 94   n/a      .000
07129>                              +   1. 0 02: P2- OVF              .00           .000 No_date    0: 00      .00   n/a      .000
07130>                          SUM=    1. 0 01: SN_CE         54253. 88     90. 199 No_date   33: 44    22. 88   n/a      .000
07131> R0010: C00218-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07132>      SAVE HYD                    1. 0 01: SN_CE         54253. 88     90. 199 No_date   33: 44    22. 88   n/a      .000
07133>        fname: .SN_CE. 0010
07134>        remark: Total Flows before Station 5737 on Jock River
07135> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
07136> # 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-16\Des
07137> # JFSA 2021-03-02  change the slope to 0.0175% instead of 0.02593 to stabilize the model
07138> R0010: C00219-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07139>      ROUTE CHANNEL               1. 0 02: SN_CE         54253. 88     90. 199 No_date   33: 44    22. 88   n/a      .000
07140> *    [RDT=  1. 00]  out <-       1. 0 01: 5737          54253. 88     85. 563 No_date   36: 21    22. 88   n/a      .000
07141>        [L/ S/ n=  270. /  . 018/ . 035]
07142>        [Vmx=  . 730: Dmx=  4. 478]
07143> R0010: C00220-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07144>      ADD HYD                     1. 0 02: 5737          54253. 88     85. 563 No_date   36: 21    22. 88   n/a      .000
07145>                              +   1. 0 02: S- 1- D1R          21. 67       .191 No_date   29: 12    48. 88   n/a      .000
07146>                              +   1. 0 02: S- 1- D6R           1. 75       .015 No_date   29: 12    48. 88   n/a      .000
07147>                              +   1. 0 02: S- 1- D7R           2. 03       .018 No_date   29: 12    48. 75   n/a      .000
07148>                              +   1. 0 02: S- 1- D1Rovf         .00           .000 No_date    0: 00      .00   n/a      .000
07149>                              +   1. 0 02: S- 1- D6Rovf         .00           .000 No_date    0: 00      .00   n/a      .000
07150>                              +   1. 0 02: S- 1- D7Rovf         .00           .000 No_date    0: 00      .00   n/a      .000
07151>                          SUM=    1. 0 01: 5002          54279. 34     85. 716 No_date   36: 21    22. 89   n/a      .000
07152> R0010: C00221-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07153>      SAVE HYD                    1. 0 01: 5002          54279. 34     85. 716 No_date   36: 21    22. 89   n/a      .000
07154>        fname: .5002. 0010
07155>        remark: Total Flows before Station 5002 on Jock River
07156> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
07157> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
07158> # JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable
07159> # JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
07160> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
07161> R0010: C00222-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07162>      ROUTE CHANNEL               1. 0 02: 5002          54279. 34     85. 716 No_date   36: 21    22. 89   n/a      .000
07163> *    [RDT=  1. 00]  out <-       1. 0 01: N_WCa         54279. 34     85. 732 No_date   36: 17    22. 89   n/a      .000
07164>        [L/ S/ n=  245. /  . 095/ . 035]
07165>        [Vmx=  1. 133: Dmx=  2. 527]
07166> R0010: C00223-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07167>      ROUTE CHANNEL               1. 0 02: N_WCa         54279. 34     85. 732 No_date   36: 17    22. 89   n/a      .000
07168> *    [RDT=  1. 00]  out <-       1. 0 01: N_WCb         54279. 34     85. 711 No_date   36: 25    22. 89   n/a      .000
07169>        [L/ S/ n=  245. /  . 095/ . 035]
07170>        [Vmx=  1. 134: Dmx=  2. 527]
07171> R0010: C00224-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07172>      ROUTE CHANNEL               1. 0 02: N_WCb         54279. 34     85. 711 No_date   36: 25    22. 89   n/a      .000
07173> *    [RDT=  1. 00]  out <-       1. 0 01: N_WC          54279. 34     85. 718 No_date   36: 25    22. 89   n/a      .000
07174>        [L/ S/ n=  245. /  . 095/ . 035]
07175>        [Vmx=  1. 133: Dmx=  2. 527]
07176> #*************************************************************************
07177> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
07178> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
07179> #
07180> R0010: C00225-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07181>      ROUTE CHANNEL               1. 0 02: N_WC          54279. 34     85. 718 No_date   36: 25    22. 89   n/a      .000
07182>        [RDT=  1. 00]  out <-       1. 0 01: N_KB          54279. 34     85. 356 No_date   36: 41    22. 89   n/a      .000
07183>        [L/ S/ n=  1020. /  . 050/ . 035]
07184>        [Vmx=  1. 004: Dmx=  3. 138]
07185> #*************************************************************************
07186> #      Catchment KENLBU
07187> #   - To Kennedy-Burnett SWM Facility
07188> #   - Outlets to Fraser-Clarke drain (north of the Jock)
07189> #   - Medium density residential subdivision
07190> #*************************************************************************
07191> #
07192> #   Existing Kennedy-Burnett SWM Facility
07193> #     - Rating curve obtained from URTKBP
07194> #     - Tributary Drainage Area to Pond = 160 ha
07195> #*************************************************************************
07196> R0010: C00226-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07197>      CONTINUOUS STANDHYD         1. 0 01: KB-01A          40. 82      3. 338 No_date   28: 12    24. 14   .373     .000
07198>        [XI M=. 10: TI M=. 40]
07199>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07200>        [Pervious       area: IAper=  4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    .0]
07201>        [Impervious     area: IAimp=   . 79: SLPI=  . 50: LGI=  522. : MNI=. 013: SCI=    .0]
07202>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07203> R0010: C00227-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07204>      COMPUTE DUALHYD             1. 0 01: KB-01A          40. 82      3. 338 No_date   28: 12    24. 14   n/a      .000
07205>        Major System   /          1. 0 02: KB-01A-MJ          .00           .000 No_date    0: 00      .00   n/a      .000
07206>        Minor System   \          1. 0 03: KB-01A-MN       40. 82      3. 338 No_date   28: 12    24. 14   n/a      .000
07207>        [MjSysSto=. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07208> R0010: C00228-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07209>      ADD HYD                     1. 0 02: KB-01A-MJ          .00           .000 No_date    0: 00      .00   n/a      .000
07210>                              +   1. 0 02: KB-01A-MN       40. 82      3. 338 No_date   28: 12    24. 14   n/a      .000
07211>                          SUM=    1. 0 01: KB-01A-S        40. 82      3. 338 No_date   28: 12    24. 14   n/a      .000
07212> R0010: C00229-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07213>      CONTINUOUS STANDHYD         1. 0 01: KB-01B          31. 10      2. 335 No_date   28: 08    26. 73   .413     .000
07214>        [XI M=. 19: TI M=. 38]
07215>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07216>        [Pervious       area: IAper=  4. 67: SLPP=  . 42: LGP=   40. : MNP=. 250: SCP=    .0]
07217>        [Impervious     area: IAimp=   . 79: SLPI=  . 42: LGI=  455. : MNI=. 013: SCI=    .0]
07218>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07219> R0010: C00230-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07220>      COMPUTE DUALHYD             1. 0 01: KB-01B          31. 10      2. 335 No_date   28: 08    26. 73   n/a      .000
07221>        Major System   /          1. 0 02: KB-01B-MJ          .00           .000 No_date    0: 00      .00   n/a      .000
07222>        Minor System   \          1. 0 03: KB-01B-MN       31. 10      1. 585 No_date   27: 59    26. 78   n/a      .000
07223>        [MjSysSto=. 8272E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07224> R0010: C00231-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07225>      ADD HYD                     1. 0 02: KB-01B-MJ          .00           .000 No_date    0: 00      .00   n/a      .000
07226>                              +   1. 0 02: KB-01B-MN       31. 10      1. 585 No_date   27: 59    26. 78   n/a      .000
07227>                          SUM=    1. 0 01: KB-01B-S        31. 10      1. 585 No_date   27: 59    26. 78   n/a      .000
07228> R0010: C00232-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07229>      CONTINUOUS STANDHYD         1. 0 01: KB-01C          13. 78      1. 534 No_date   28: 05    27. 74   .429     .000
07230>        [XI M=. 20: TI M=. 41]
07231>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07232>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07233>        [Impervious     area: IAimp=   . 79: SLPI=  . 50: LGI=  303. : MNI=. 013: SCI=    .0]
07234>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07235> R0010: C00233-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07236>      COMPUTE DUALHYD             1. 0 01: KB-01C          13. 78      1. 534 No_date   28: 05    27. 74   n/a      .000
07237>        Major System   /          1. 0 02: KB-01C-MJ          .00           .000 No_date    0: 00      .00   n/a      .000
07238>        Minor System   \          1. 0 03: KB-01C-MN       13. 78      1. 350 No_date   28: 00    27. 93   n/a      .000
07239>        [MjSysSto=. 6901E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07240> R0010: C00234-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07241>      ADD HYD                     1. 0 02: KB-01C-MJ          .00           .000 No_date    0: 00      .00   n/a      .000
07242>                              +   1. 0 02: KB-01C-MN       13. 78      1. 350 No_date   28: 00    27. 93   n/a      .000
07243>                          SUM=    1. 0 01: KB-01C-S        13. 78      1. 350 No_date   28: 00    27. 93   n/a      .000
07244> R0010: C00235-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07245>      CONTINUOUS STANDHYD         1. 0 01: KB-03           84. 78      7. 685 No_date   28: 09    27. 30   .422     .000
07246>        [XI M=. 20: TI M=. 39]
07247>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07248>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07249>        [Impervious     area: IAimp=   . 79: SLPI=  . 63: LGI=  752. : MNI=. 013: SCI=    .0]
07250>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07251> R0010: C00236-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07252>      COMPUTE DUALHYD             1. 0 01: KB-03           84. 78      7. 685 No_date   28: 09    27. 30   n/a      .000
07253>        Major System   /          1. 0 02: KB-03-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07254>        Minor System   \          1. 0 03: KB-03-MN        84. 78      5. 270 No_date   27: 59    27. 40   n/a      .000
07255>        [MjSysSto=. 2022E+04,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07256> R0010: C00237-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07257>      ADD HYD                     1. 0 02: KB-03-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07258>                              +   1. 0 02: KB-03-MN        84. 78      5. 270 No_date   27: 59    27. 40   n/a      .000
07259>                          SUM=    1. 0 01: KB-03-S         84. 78      5. 270 No_date   27: 59    27. 40   n/a      .000
07260> R0010: C00238-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07261>      CONTINUOUS STANDHYD         1. 0 01: KB-04           6. 95      1. 217 No_date   28: 01    56. 45   .873     .000
07262>        [XI M=. 85: TI M=. 85]
07263>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07264>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07265>        [Impervious     area: IAimp=   . 94: SLPI=  . 50: LGI=  215. : MNI=. 013: SCI=    .0]
07266>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07267> R0010: C00239-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07268>      COMPUTE DUALHYD             1. 0 01: KB-04           6. 95      1. 217 No_date   28: 01    56. 45   n/a      .000
07269>        Major System   /          1. 0 02: KB-04-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07270>        Minor System   \          1. 0 03: KB-04-MN        6. 95       .503 No_date   27: 46    56. 53   n/a      .000
07271>        [MjSysSto=. 5392E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07272> R0010: C00240-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07273>      ADD HYD                     1. 0 02: KB-04-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07274>                              +   1. 0 02: KB-04-MN        6. 95       .503 No_date   27: 46    56. 53   n/a      .000
07275>                          SUM=    1. 0 01: KB-04-S         6. 95       .503 No_date   27: 46    56. 53   n/a      .000
07276> R0010: C00241-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07277>      CONTINUOUS STANDHYD         1. 0 01: KB-05           5. 19       .983 No_date   28: 00    59. 76   .924     .000
07278>        [XI M=. 93: TI M=. 93]
07279>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07280>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07281>        [Impervious     area: IAimp=   . 57: SLPI=  . 50: LGI=  186. : MNI=. 013: SCI=    .0]
07282>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07283> R0010: C00242-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07284>      CONTINUOUS STANDHYD         1. 0 01: KB-06           12. 93      2. 536 No_date   28: 00    57. 57   .890     .000
07285>        [XI M=. 87: TI M=. 87]
07286>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07287>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07288>        [Impervious     area: IAimp=   . 94: SLPI=4. 75: LGI=  294. : MNI=. 013: SCI=    .0]
07289>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07290> R0010: C00243-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07291>      COMPUTE DUALHYD             1. 0 01: KB-06           12. 93      2. 536 No_date   28: 00    57. 57   n/a      .000
07292>        Major System   /          1. 0 02: KB-06-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07293>        Minor System   \          1. 0 03: KB-06-MN        12. 93      2. 262 No_date   27: 56    57. 80   n/a      .000
07294>        [MjSysSto=. 6369E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07295> R0010: C00244-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07296>      ADD HYD                     1. 0 02: KB-06-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07297>                              +   1. 0 02: KB-06-MN        12. 93      2. 262 No_date   27: 56    57. 80   n/a      .000
07298>                          SUM=    1. 0 01: KB-06-S         12. 93      2. 262 No_date   27: 56    57. 80   n/a      .000
07299> R0010: C00245-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07300>      CONTINUOUS STANDHYD         1. 0 01: KB-11           4. 03       .686 No_date   28: 00    48. 04   .743     .000
07301>        [XI M=. 68: TI M=. 68]
07302>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07303>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07304>        [Impervious     area: IAimp=   . 79: SLPI=2. 00: LGI=  164. : MNI=. 013: SCI=    .0]
07305>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07306> R0010: C00246-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07307>      COMPUTE DUALHYD             1. 0 01: KB-11           4. 03       .686 No_date   28: 00    48. 04   n/a      .000
07308>        Major System   /          1. 0 02: KB-11-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07309>        Minor System   \          1. 0 03: KB-11-MN        4. 03       .577 No_date   27: 55    48. 44   n/a      .000
07310>        [MjSysSto=. 2954E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07311> R0010: C00247-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07312>      ADD HYD                     1. 0 02: KB-11-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07313>                              +   1. 0 02: KB-11-MN        4. 03       .577 No_date   27: 55    48. 44   n/a      .000
07314>                          SUM=    1. 0 01: KB-11-S         4. 03       .577 No_date   27: 55    48. 44   n/a      .000
07315> R0010: C00248-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07316>      CONTINUOUS STANDHYD         1. 0 01: S1              4. 99      1. 020 No_date   28: 00    59. 76   .924     .000
07317>        [XI M=. 93: TI M=. 93]
07318>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07319>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07320>        [Impervious     area: IAimp=  1. 57: SLPI=2. 00: LGI=  182. : MNI=. 013: SCI=    .0]
07321>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07322> R0010: C00249-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07323>      CONTINUOUS STANDHYD         1. 0 01: KB-15           2. 15       .377 No_date   28: 00    54. 15   .837     .000
07324>        [XI M=. 79: TI M=. 79]
07325>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07326>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07327>        [Impervious     area: IAimp=   . 16: SLPI=  . 30: LGI=  120. : MNI=. 013: SCI=    .0]
07328>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07329> R0010: C00250-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07330>      ADD HYD                     1. 0 02: KB-01A-S        40. 82      3. 338 No_date   28: 12    24. 14   n/a      .000
07331>                              +   1. 0 02: KB-01B-S        31. 10      1. 585 No_date   27: 59    26. 78   n/a      .000
07332>                              +   1. 0 02: KB-01C-S        13. 78      1. 350 No_date   28: 00    27. 93   n/a      .000
07333>                              +   1. 0 02: KB-03- S        84. 78      5. 270 No_date   27: 59    27. 40   n/a      .000
07334>                              +   1. 0 02: KB-04- S         6. 95       .503 No_date   27: 46    56. 53   n/a      .000
07335>                              +   1. 0 02: KB-05           5. 19       .983 No_date   28: 00    59. 76   n/a      .000
07336>                              +   1. 0 02: KB-06- S        12. 93      2. 262 No_date   27: 56    57. 80   n/a      .000
07337>                              +   1. 0 02: KB-11- S         4. 03       .577 No_date   27: 55    48. 44   n/a      .000
07338>                              +   1. 0 02: KB-15           2. 15       .377 No_date   28: 00    54. 15   n/a      .000
07339>                              +   1. 0 02: S1              4. 99      1. 020 No_date   28: 00    59. 76   n/a      .000
07340>                          SUM=    1. 0 01: KB-PI         206. 72     16. 418 No_date   28: 01    31. 86   n/a      .000
07341> R0010: C00251-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07342>      ROUTE RESERVOIR -->         1. 0 02: KB-PI         206. 72     16. 418 No_date   28: 01    31. 86   n/a      .000
07343>                      out <-      1. 0 01: KB-PIR        206. 72     12. 427 No_date   28: 17    31. 86   n/a      .000
07344>                   overflow <=    1. 0 03: KB-PIovf         .00           .000 No_date    0: 00      .00   n/a      .000
07345>        [MxStoSked=. 7282E+00   m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07346> R0010: C00252-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07347>      ADD HYD                     1. 0 02: KB-PIR        206. 72     12. 427 No_date   28: 17    31. 86   n/a      .000
07348>                              +   1. 0 02: KB-PIovf           .00           .000 No_date    0: 00      .00   n/a      .000
07349>                          SUM=    1. 0 01: KB-Pond1      206. 72     12. 427 No_date   28: 17    31. 86   n/a      .000
07350> R0010: C00253-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07351>      SAVE HYD                    1. 0 01: KB-Pond1      206. 72     12. 427 No_date   28: 17    31. 86   n/a      .000
07352>        fname: .KB-Pond1. 0010
07353>        remark: Total Flows at KB first pond
07354> R0010: C00254-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07355>      CONTINUOUS STANDHYD         1. 0 01: KB-07           10. 86      2. 042 No_date   28: 00    57. 07   .882     .000
07356>        [XI M=. 86: TI M=. 86]
07357>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07358>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07359>        [Impervious     area: IAimp=   . 79: SLPI=2. 00: LGI=  269. : MNI=. 013: SCI=    .0]
07360>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07361> R0010: C00255-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07362>      COMPUTE DUALHYD             1. 0 01: KB-07           10. 86      2. 042 No_date   28: 00    57. 07   n/a      .000
07363>        Major System   /          1. 0 02: KB-07-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07364>        Minor System   \          1. 0 03: KB-07-MN        10. 86      2. 042 No_date   28: 00    57. 07   n/a      .000
07365>        [MjSysSto=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07366> R0010: C00256-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07367>      ADD HYD                     1. 0 02: KB-07-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07368>                              +   1. 0 02: KB-07-MN        10. 86      2. 042 No_date   28: 00    57. 07   n/a      .000
07369>                          SUM=    1. 0 01: KB-07-S         10. 86      2. 042 No_date   28: 00    57. 07   n/a      .000
07370> R0010: C00257-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07371>      CONTINUOUS STANDHYD         1. 0 01: KB-08           6. 61      1. 072 No_date   28: 00    46. 33   .716     .000
07372>        [XI M=. 64: TI M=. 64]
07373>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07374>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07375>        [Impervious     area: IAimp=   . 79: SLPI=2. 00: LGI=  210. : MNI=. 013: SCI=    .0]
07376>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07377> R0010: C00258-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07378>      COMPUTE DUALHYD             1. 0 01: KB-08           6. 61      1. 072 No_date   28: 00    46. 33   n/a      .000
07379>        Major System   /          1. 0 02: KB-08-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07380>        Minor System   \          1. 0 03: KB-08-MN        6. 61      1. 058 No_date   28: 00    46. 37   n/a      .000
07381>        [MjSysSto=. 9091E+00,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07382> R0010: C00259-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07383>      ADD HYD                     1. 0 02: KB-08-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07384>                              +   1. 0 02: KB-08-MN        6. 61      1. 058 No_date   28: 00    46. 37   n/a      .000
07385>                          SUM=    1. 0 01: KB-08-S         6. 61      1. 058 No_date   28: 00    46. 37   n/a      .000
07386> R0010: C00260-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07387>      CONTINUOUS STANDHYD         1. 0 01: KB-09           2. 60       .515 No_date   28: 00    56. 40   .872     .000
07388>        [XI M=. 86: TI M=. 86]
07389>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07390>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07391>        [Impervious     area: IAimp=  1. 57: SLPI=2. 00: LGI=  132. : MNI=. 013: SCI=    .0]
07392>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07393> R0010: C00261-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07394>      CONTINUOUS STANDHYD         1. 0 01: KB-10_1         2. 37       .470 No_date   28: 00    56. 40   .872     .000
07395>        [XI M=. 86: TI M=. 86]
07396>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07397>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07398>        [Impervious     area: IAimp=  1. 57: SLPI=2. 00: LGI=  126. : MNI=. 013: SCI=    .0]
07399>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07400> R0010: C00262-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07401>      CONTINUOUS STANDHYD         1. 0 01: KB-10_2         1. 14       .229 No_date   28: 00    56. 40   .872     .000
07402>        [XI M=. 86: TI M=. 86]
07403>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07404>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07405>        [Impervious     area: IAimp=  1. 57: SLPI=2. 00: LGI=   87. : MNI=. 013: SCI=    .0]
07406>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07407> R0010: C00263-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07408>      CONTINUOUS STANDHYD         1. 0 01: KB-12           4. 86       .900 No_date   28: 00    53. 41   .826     .000
07409>        [XI M=. 79: TI M=. 79]
07410>        [Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
07411>        [Pervious       area: IAper=  4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    .0]
07412>        [Impervious     area: IAimp=  1. 10: SLPI=2. 00: LGI=  180. : MNI=. 013: SCI=    .0]
07413>        [IaRECI mp=   4. 00: IaRECper=   4. 00]
07414> R0010: C00264-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07415>      COMPUTE DUALHYD             1. 0 01: KB-12           4. 86       .900 No_date   28: 00    53. 41   n/a      .000
07416>        Major System   /          1. 0 02: KB-12-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07417>        Minor System   \          1. 0 03: KB-12-MN        4. 86       .867 No_date   27: 58    53. 47   n/a      .000
07418>        [MjSysSto=. 3261E+01,  Tot Or f Vol =. 0000E+00,  N- Or f=      0,  Tot Dur Or f=     0. hrs]
07419> R0010: C00265-------------DTmin-1 D: NHYD----------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
07420>      ADD HYD                     1. 0 02: KB-12-MJ           .00           .000 No_date    0: 00      .00   n/a      .000
07421>                              
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07481>                +     1.0 02: KB-P2ovf          .00      .000 No_date   0:00      .00  n/a      .000
07482>           SUM=       1.0 01: KB-Pond2        254.24    15.083 No_date  28:10    35.46  n/a      .000
07483> R0010: C00276-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07484>      SAVE HYD            1.0 01: KB-Pond2        254.24    15.083 No_date  28:10    35.46  n/a      .000
07485>        fname : KB-Pond2.0010
07486>        remark: Total Flows at KB second pond
07487> R0010: C00277-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07488>      CONTINUOUS STANDHYD    1.0 01: KB-16_1          2.80      .465 No_date  28:01    52.17  .806      .000
07489>        [ XI M=.75: TI M=.75]
07490>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
07491>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07492>        [ Impervious    area: I Aimp= . 16: SLPI=  . 30: LGI= 137. : MNI=. 013: SCI=    .0]
07493>        [ IaREC mp=  4. 00: IaREC per=   4. 00]
07494> R0010: C00278-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07495>      ADD HYD             1.0 02: KB-P3R           12.26      .051 No_date  17:31    35.64  n/a      .000
07496>                +     1.0 02: KB-16_1           2.80      .465 No_date  28:01    52.17  n/a      .000
07497>           SUM=       1.0 01: KB-P3           257.04    15.295 No_date  28:08    35.64  n/a      .000
07498> R0010: C00279-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07499>      ROUTE RESERVOIR -->    1.0 02: KB-P3          257.04    15.295 No_date  28:08    35.64  n/a      .000
07500>                out <=     1.0 01: KB-P3R          12.26      .051 No_date  17:31    35.64  n/a      .000
07501>           overflow <=     1.0 03: KB-P3ovf       244.78    15.243 No_date  28:09    35.64  n/a      .000
07502>        [ MuSt ol ked=. 1993E- 02   m3,  Tot Ovf Vol =. 8724E+01   m3,  N- Ov f =      2,  Tot Dur Ov f =    23. hrs]
07503> R0010: C00280-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07504>      ADD HYD             1.0 02: KB-P3R           12.26      .051 No_date  17:31    35.64  n/a      .000
07505>                +     1.0 02: KB-P3ovf         244.78    15.243 No_date  28:09    35.64  n/a      .000
07506>           SUM=       1.0 01: KB-Pond3        257.04    15.294 No_date  28:09    35.64  n/a      .000
07507> R0010: C00281-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07508>      SAVE HYD            1.0 01: KB-Pond3        257.04    15.294 No_date  28:09    35.64  n/a      .000
07509>        fname : KB-Pond3.0010
07510>        remark: Total Flows at KB third pond
07511> #*************************************************************************
07512> #     EXI STI NG /  PROPOSED Subcatchments ( Kennedy- Burnett SWM Facility ( 118080) ,  SWM Modeling Approach,  NOVATECH Report Ju
07513> #     - TO FRASER- CLARKE DRAIN
07514> #*************************************************************************
07515> R0010: C00282-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07516>      CONTINUOUS STANDHYD    1.0 01: FC-01            8.03      1.049 No_date  28:01    37.67  .582      .000
07517>        [ XI M=.  47: TI M=.  47]
07518>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
07519>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07520>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 231. : MNI=. 013: SCI=    .0]
07521>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07522> R0010: C00283-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07523>      COMPUTE DUALHYD        1.0 01: FC-01            8.03      1.049 No_date  28:01    37.67  n/a      .000
07524>        Major System   /     1.0 02: FC-01-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07525>        Minor System   \     1.0 03: FC-01-MN         8.03       .756 No_date  28:17    37.91  n/a      .000
07526>        [ MJ Sys St o=. 1270E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07527> R0010: C00284-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07528>      ADD HYD             1.0 02: FC-01-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07529>                +     1.0 02: FC-01-MN         8.03       .756 No_date  27:55    37.91  n/a      .000
07530>           SUM=       1.0 01: FC-01-S          8.03       .756 No_date  27:55    37.91  n/a      .000
07531> R0010: C00285-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07532>      CONTINUOUS STANDHYD    1.0 01: FC-02           16.05      2.930 No_date  28:01    59.76  .924      .000
07533>        [ XI M=. 93: TI M=. 93]
07534>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
07535>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07536>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 327. : MNI=. 013: SCI=    .0]
07537>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07538> R0010: C00286-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07539>      COMPUTE DUALHYD       1.0 01: FC-02           16.05      2.930 No_date  28:01    59.76  n/a      .000
07540>        Major System   /     1.0 02: FC-02-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07541>        Minor System   \     1.0 03: FC-02-MN        16.05      1.159 No_date  27:46    59.94  n/a      .000
07542>        [ MJ Sys St o=. 1407E+04,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07543> R0010: C00287-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07544>      ADD HYD             1.0 02: FC-02-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07545>                +     1.0 02: FC-02-MN        16.05      1.159 No_date  27:46    59.94  n/a      .000
07546>           SUM=       1.0 01: FC-02-S         16.05      1.159 No_date  27:46    59.94  n/a      .000
07547> R0010: C00288-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07548>      CONTINUOUS STANDHYD    1.0 01: FC-03            7.37      1.130 No_date  28:01    45.83  .708      .000
07549>        [ XI M=. 64: TI M=. 64]
07550>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
07551>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07552>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 222. : MNI=. 013: SCI=    .0]
07553>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07554> R0010: C00289-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07555>      COMPUTE DUALHYD       1.0 01: FC-03            7.37      1.130 No_date  28:01    45.83  n/a      .000
07556>        Major System   /     1.0 02: FC-03-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07557>        Minor System   \     1.0 03: FC-03-MN         7.37       .358 No_date  27:45    45.93  n/a      .000
07558>        [ MJ Sys St o=. 6763E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07559> R0010: C00290-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07560>      ADD HYD             1.0 02: FC-03-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07561>                +     1.0 02: FC-03-MN         7.37       .358 No_date  27:45    45.93  n/a      .000
07562>           SUM=       1.0 01: FC-03-S          7.37       .358 No_date  27:45    45.93  n/a      .000
07563> R0010: C00291-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07564>      CONTINUOUS STANDHYD    1.0 01: FC-04           12.87      1.906 No_date  28:01    45.83  .708      .000
07565>        [ XI M=. 64: TI M=. 64]
07566>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
07567>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07568>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 293. : MNI=. 013: SCI=    .0]
07569>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07570> R0010: C00292-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07571>      COMPUTE DUALHYD       1.0 01: FC-04           12.87      1.906 No_date  28:01    45.83  n/a      .000
07572>        Major System   /     1.0 02: FC-04-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07573>        Minor System   \     1.0 03: FC-04-MN        12.87       .741 No_date  27:46    45.93  n/a      .000
07574>        [ MJ Sys St o=. 9380E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07575> R0010: C00293-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07576>      ADD HYD             1.0 02: FC-04-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07577>                +     1.0 02: FC-04-MN        12.87       .741 No_date  27:46    45.93  n/a      .000
07578>           SUM=       1.0 01: FC-04-S         12.87       .741 No_date  27:46    45.93  n/a      .000
07579> #*************************************************************************
07580> #     PROPOSED Subcatchments ( Kennedy- Burnett SWM Facility ( 118080) ,  SWM Modeling Approach,  NOVATECH Report June,  2020)
07581> #     - TO JOCK RIVER
07582> #*************************************************************************
07583> R0010: C00294-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07584>      CONTINUOUS STANDHYD    1.0 01: JR-01            8.24      1.257 No_date  28:01    45.83  .708      .000
07585>        [ XI M=. 64: TI M=. 64]
07586>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
07587>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07588>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 234. : MNI=. 013: SCI=    .0]
07589>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07590> R0010: C00295-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07591>      COMPUTE DUALHYD       1.0 01: JR-01            8.24      1.257 No_date  28:01    45.83  n/a      .000
07592>        Major System   /     1.0 02: JR-01-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07593>        Minor System   \     1.0 03: JR-01-MN         8.24       .563 No_date  27:38    46.14  n/a      .000
07594>        [ MJ Sys St o=. 4889E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07595> R0010: C00296-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07596>      ADD HYD             1.0 02: JR-01-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07597>                +     1.0 02: JR-01-MN         8.24       .563 No_date  27:47    46.14  n/a      .000
07598>           SUM=       1.0 01: JR-01-S          8.24       .563 No_date  27:47    46.14  n/a      .000
07599> R0010: C00297-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07600>      CONTINUOUS STANDHYD    1.0 01: JR-02            1.59       .264 No_date  28:00    45.83  .708      .000
07601>        [ XI M=. 64: TI M=. 64]
07602>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   F=  .00]
07603>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07604>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 103. : MNI=. 013: SCI=    .0]
07605>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07606> R0010: C00298-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07607>      COMPUTE DUALHYD       1.0 01: JR-02            1.59       .264 No_date  28:00    45.83  n/a      .000
07608>        Major System   /     1.0 02: JR-02-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07609>        Minor System   \     1.0 03: JR-02-MN         1.59       .153 No_date  27:51    46.12  n/a      .000
07610>        [ MJ Sys St o=. 5453E+02,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07611> R0010: C00299-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07612>      ADD HYD             1.0 02: JR-02-MJ          .00       .000 No_date   0:00      .00  n/a      .000
07613>                +     1.0 02: JR-02-MN         1.59       .153 No_date  27:51    46.12  n/a      .000
07614>           SUM=       1.0 01: JR-02-S          1.59       .153 No_date  27:51    46.12  n/a      .000
07615> #*************************************************************************
07616> #     Catchment FRASER
07617> #     - To Fraser- Clarke drain (north of the Jock)
07618> #     - Developed land with assumed 43% imp.
07619> #     - 2020-12-17 Change Fraser area to be 35.1 as measured from QGIS
07620> #     - 2020-12-17 All Fraser is undeveloped (Nashyd)
07621> #*************************************************************************
07622> R0010: C00300-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07623>      CONTINUOUS NASHYD      1.0 01: FRASER-DRN      13.65       .447 No_date  28:22    26.85  .415      .000
07624>        [ CN=  77. 0:  N=  3. 00:  Tp=    . 43]
07625>        [ IaREC=  4. 00: SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
07626>        [ InterEventTime=  12. 00]
07627> R0010: C00301-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07628>      CONTINUOUS STANDHYD    1.0 01: FRASER-D         21.61      2.700 No_date  28:01    47.42  .733      .000
07629>        [ XI M=. 58: TI M=. 58]
07630>        [ LGS=  2 : CN=  80. 0]
07631>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07632>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 380. : MNI=. 013: SCI=    .0]
07633>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07634>        [ SMI N=  26. 32:  SMAX=175. 50:  SK=  .010]
07635> R0010: C00302-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07636>      COMPUTE DUALHYD       1.0 01: FRASER-D         21.61      2.700 No_date  28:01    47.42  n/a      .000
07637>        Major System   /     1.0 02: FRASER-J          .00       .000 No_date   0:00      .00  n/a      .000
07638>        Minor System   \     1.0 03: FRASER-N         21.61      2.281 No_date  27:57    47.46  n/a      .000
07639>        [ MJ Sys St o=. 1390E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07640> R0010: C00303-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07641>      ADD HYD             1.0 02: FRASER-J          .00       .000 No_date   0:00      .00  n/a      .000
07642>                +     1.0 02: FRASER-N         21.61      2.281 No_date  27:57    47.46  n/a      .000
07643>           SUM=       1.0 01: FRASER-S         21.61      2.281 No_date  27:57    47.46  n/a      .000
07644> R0010: C00304-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07645>      ADD HYD             1.0 02: KB-Pond3        257.04    15.294 No_date  28:09    35.64  n/a      .000
07646>                +     1.0 02: S- 1- B          55. 36      1.740 No_date  28:24    26. 85  n/a      .000
07647>                +     1.0 02: FRASER-DRN       13.65       .447 No_date  28:22    26.85  n/a      .000
07648>                +     1.0 02: FRASER-S         21.61      2.281 No_date  27:57    47.46  n/a      .000
07649>                +     1.0 02: C_NB           54279. 34   85. 356 No_date  36:41    22. 89  n/a      .000
07650>                +     1.0 02: FC-01-S          8.03       .756 No_date  27:55    37.91  n/a      .000
07651>                +     1.0 02: FC-02-S         16.05      1.159 No_date  27:46    59.94  n/a      .000
07652>                +     1.0 02: FC-03-S          7.37       .358 No_date  27:45    45.93  n/a      .000
07653>           SUM=       1.0 01: 4241          54658.45   85. 806 No_date  36:39    22. 98  n/a      .000
07654> R0010: C00305-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07655>      SAVE HYD            1.0 01: 4241          54658.45   85. 806 No_date  36:39    22. 98  n/a      .000
07656>        fname : 4241.0010
07657>        remark: Total Flows at Ken- Burnett Outlet
07658> # Hydrograph from Node Ken- Burnett to station 3633
07659> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4241
07660> #
07661> R0010: C00306-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07662>      ROUTE CHANNEL   -->    1.0 02: 4241          54658.45   85. 806 No_date  36:39    22. 98  n/a      .000
07663>        [ RDT=  1. 00]  out <-     1.0 01: 4241- out    54658.45   85. 856 No_date  36:23    22. 98  n/a      .000
07664>        [ LJ S/ n=   294. /  . 109/ . 035]
07665>        [ Vmx=  1. 172: Dmx=  2. 015]
07666> R0010: C00307-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07667>      ADD HYD             1.0 02: 4241- out     54658.45   85. 856 No_date  36:23    22. 98  n/a      .000
07668>                +     1.0 02: FC-04-S          12.87       .741 No_date  27:46    45.93  n/a      .000
07669>                +     1.0 02: JR-01-S           8.24       .563 No_date  27:47    46.14  n/a      .000
07670>                +     1.0 02: JR-02-S           1.59       .153 No_date  27:51    46.12  n/a      .000
07671>           SUM=       1.0 01: SN_KB           54681.14   85. 887 No_date  36:23    22. 99  n/a      .000
07672> R0010: C00308-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07673>      SAVE HYD            1.0 01: SN_KB           54681.14   85. 887 No_date  36:23    22. 99  n/a      .000
07674>        fname : SN_KB. 0010
07675>        remark: Total Flows before Station 3633
07676> # Hydrograph from Station 3633 to Node Todd
07677> # Channel X- Section obtained from RVCA Hydraulic Model - Station 3633
07678> # JFSA 2021- 02- 26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
07679> #
07680> R0010: C00309-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07681>      ROUTE CHANNEL   -->    1.0 02: SN_KB           54681.14   85. 887 No_date  36:23    22. 99  n/a      .000
07682>        [ RDT=  1. 00]  out <-     1.0 01: N_TO          54681.14   85. 808 No_date  36:44    22. 99  n/a      .000
07683>        [ LJ S/ n=   608. /  . 247/ . 035]
07684>        [ Vmx=  1. 553: Dmx=  1. 518]
07685> #*************************************************************************
07686> #     Catchment Greenbank
07687> #     - To Greenbank Drain (south of the Jock)
07688> #     - JFSA 2021- 01- 18 add Greenbank pond as per JFSA,  P598( 06)- 15,  June 2016
07689> #     - JFSA 2021- 01- 19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
07690> #*************************************************************************
07691> R0010: C00310-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07692>      CONTINUOUS STANDHYD    1.0 01: Greenbank        36. 60      4. 662 No_date  28:02    49. 38  . 763      .000
07693>        [ XI M=. 64: TI M=. 68]
07694>        [ LGS=  2 : CN=  77. 0]
07695>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07696>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=    .0]
07697>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07698>        [ SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
07699> R0010: C00311-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07700>      ROUTE RESERVOIR -->    1.0 02: Greenbank        36. 60      4. 662 No_date  28:02    49. 38  n/a      .000
07701>                out <=     1.0 01: GreenB_MN        36. 60      1. 697 No_date  28:18    49. 38  n/a      .000
07702>           overflow <=     1.0 03: GreenB_MJ         .00       .000 No_date   0:00      .00  n/a      .000
07703>        [ MuSt ol ked=. 8299E+00  m3,  Tot Ov f Vol =. 0000E+00  m3,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07704> R0010: C00312-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07705>      ADD HYD             1.0 02: N_TO            54681.14   85. 808 No_date  36:44    22. 99  n/a      .000
07706>                +     1.0 02: GreenB_MJ         .00       .000 No_date   0:00      .00  n/a      .000
07707>                +     1.0 02: GreenB_MN        36. 60      1. 697 No_date  28:18    49. 38  n/a      .000
07708>           SUM=       1.0 01: GreenB          54717. 74   85. 928 No_date  36:44    23. 01  n/a      .000
07709> R0010: C00313-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07710>      SAVE HYD            1.0 01: GreenB          54717. 74   85. 928 No_date  36:44    23. 01  n/a      .000
07711>        fname : GreenB. 0010
07712>        remark: Total Flows at Greenbank Drain
07713> #*************************************************************************
07714> #     Catchment TODD
07715> #     - To Todd Drain (south of the Jock)
07716> #     - Subdivision with 43% imp. as per Barrhaven South MSS
07717> #     - 2020- 11- 30 increase imp. based on P598( 04)- 11
07718> #     - 2020- 11- 30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598( 04)- 11
07719> #     - 2020- 11- 30 split TODD Drainage Area to MAJOR,  MINOR,  POND and ALL
07720> #*************************************************************************
07721> #     - JFSA 2021- 01- 19 add "TODD_MNI" as part of Clarke( "WCLAR_MI") and remove it from Todd
07722> R0010: C00314-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07723>      CONTINUOUS STANDHYD    1.0 01: TODD_MN2         2. 10       .282 No_date  28:00    44. 92  . 694      .000
07724>        [ XI M=. 53: TI M=. 57]
07725>        [ LGS=  2 : CN=  77. 0]
07726>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07727>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=    .0]
07728>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07729>        [ SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
07730> R0010: C00315-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07731>      CONTINUOUS STANDHYD    1.0 01: TODD_MN3          .12       .016 No_date  28:00    44. 90  . 694      .000
07732>        [ XI M=. 53: TI M=. 57]
07733>        [ LGS=  2 : CN=  77. 0]
07734>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07735>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=    .0]
07736>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07737>        [ SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
07738> R0010: C00316-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07739>      CONTINUOUS STANDHYD    1.0 01: TODD_MJ          30. 23      3. 512 No_date  28:02    46. 20  . 714      .000
07740>        [ XI M=. 52: TI M=. 64]
07741>        [ LGS=  2 : CN=  77. 0]
07742>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07743>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=    .0]
07744>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07745>        [ SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
07746> R0010: C00317-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07747>      CONTINUOUS STANDHYD    1.0 01: TODD_ALL        112. 91    10. 943 No_date  28:05    44. 71  . 691      .000
07748>        [ XI M=. 52: TI M=. 57]
07749>        [ LGS=  2 : CN=  77. 0]
07750>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07751>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=    .0]
07752>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07753>        [ SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
07754> R0010: C00318-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07755>      CONTINUOUS STANDHYD    1.0 01: TODD_P           3. 06       .451 No_date  28:00    48. 23  . 745      .000
07756>        [ XI M=. 63: TI M=. 63]
07757>        [ LGS=  2 : CN=  77. 0]
07758>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07759>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 143. : MNI=. 013: SCI=    .0]
07760>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07761>        [ SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
07762> # 5- Year + 12% Capture
07763> R0010: C00319-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07764>      ROUTE RESERVOIR -->    1.0 02: TODD_MJ          30. 23      3. 512 No_date  28:02    46. 20  n/a      .000
07765>                out <=     1.0 01: TODD_Mrg         30. 14      3. 314 No_date  28:00    46. 20  n/a      .000
07766>           overflow <=     1.0 03: TODD_Mfj          .09       .190 No_date  28:03    46. 20  n/a      .000
07767>        [ MuSt ol ked=. 4110E- 03   m3,  Tot Ov f Vol =. 4062E- 02   m3,  N- Ov f =      1,  Tot Dur Ov f =     0. hrs]
07768> # 5- Year + 12% Capture
07769> R0010: C00320-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07770>      ROUTE RESERVOIR -->    1.0 02: TODD_MN2         2. 10       .282 No_date  28:00    44. 92  n/a      .000
07771>                out <=     1.0 01: TODD_MN2rg       2. 10       .268 No_date  27:58    44. 92  n/a      .000
07772>           overflow <=     1.0 03: TODD_MN2j         .00       .011 No_date  28:00    44. 92  n/a      .000
07773>        [ MuSt ol ked=. 1267E- 03   m3,  Tot Ov f Vol =. 1440E- 03   m3,  N- Ov f =      1,  Tot Dur Ov f =     0. hrs]
07774> R0010: C00321-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07775>      ROUTE RESERVOIR -->    1.0 02: TODD_MN3          .12       .016 No_date  28:00    44. 90  n/a      .000
07776>                out <=     1.0 01: TODD_MN3rg        .12       .016 No_date  28:00    44. 90  n/a      .000
07777>           overflow <=     1.0 03: TODD_MN3j         .00       .000 No_date  28:00    44. 90  n/a      .000
07778>        [ MuSt ol ked=. 1007E- 03   m3,  Tot Ov f Vol =. 1379E- 05   m3,  N- Ov f =      1,  Tot Dur Ov f =     0. hrs]
07779> R0010: C00322-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07780>      CONTINUOUS STANDHYD    1.0 01: A2              25. 50      2. 388 No_date  28:03    40. 97  . 633      .000
07781>        [ XI M=. 42: TI M=. 52]
07782>        [ LGS=  2 : CN=  75. 0]
07783>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
07784>        [ Impervious    area: I Aimp= 1. 57: SLPI=1. 00: LGI= 566. : MNI=. 013: SCI=    .0]
07785>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
07786>        [ SMI N=  33. 81:  SMAX=225. 43:  SK=  .010]
07787> R0010: C00323-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07788>      COMPUTE DUALHYD       1.0 01: A2              25. 50      2. 388 No_date  28:03    40. 97  n/a      .000
07789>        Major System   /     1.0 02: A2- MJ            .00       .000 No_date   0:00      .00  n/a      .000
07790>        Minor System   \     1.0 03: A2- MN          25. 50      1. 818 No_date  27:57    40. 97  n/a      .000
07791>        [ MJ Sys St o=. 2896E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ov f =     0. hrs]
07792> R0010: C00324-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07793>      ADD HYD             1.0 02: TODD_MN2n         2. 10       .268 No_date  27:58    44. 92  n/a      .000
07794>                +     1.0 02: TODD_MN3n          .12       .016 No_date  28:00    44. 90  n/a      .000
07795>                +     1.0 02: TODD_Mfj           .09       .190 No_date  28:03    46. 20  n/a      .000
07796>                +     1.0 02: TODD_P            3. 06       .451 No_date  28:00    48. 23  n/a      .000
07797>                +     1.0 02: TODD_ALL        112. 91    10. 943 No_date  28:05    44. 71  n/a      .000
07798>                +     1.0 02: W_CLAR_Mn         1. 77       .213 No_date  27:58    43. 97  n/a      .000
07799>           SUM=       1.0 01: TODD            120. 03    11. 699 No_date  28:03    44. 79  n/a      .000
07800> R0010: C00325-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07801>      SAVE HYD            1.0 01: TODD            120. 03    11. 699 No_date  28:03    44. 79  n/a      .000
07802>        fname : TODD. 0010
07803>        remark: Total Flows at Todd Drain
07804> #*************************************************************************
07805> #     Todd Pond 3
07806> #     - Rating curve obtained from Barrhaven South MSS modeling
07807> #     - stantec 2007,  Tributary Drainage Area to MSS Pond 3 = 193 ha
07808> #*************************************************************************
07809> R0010: C00326-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
07810>      ROUTE RESERVOIR -->    1.0 02: TODD            120. 03    11. 699 No_date  28:03    44. 79  n/a      .000
07811>                out <=     1.0 01: MS_P3           120. 03     6. 151 No_date  28:20    44. 79  n/a      .000
07812>           overflow <=     1.0 03: P3- OVF           .00       .000 No_date   0:00      .00  n/a      .000
07813>        [ MuSt ol ked=. 2466E+01   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =      0,  Tot Dur Ov f =     0.
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07855>       Minor System    \          1. 0 03: corr1 -MN          15. 87      1. 818 No_date    28: 09    48. 38   n/ a      . 000
07856>         [ Mj Sys St o=. 8936E+02,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
07857> R0010: C00337- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07858>       CONTI NUOUS  NASHYD          1. 0 01: corr2          12. 47       . 209 No_date    29: 11    26. 85   . 415     . 000
07859>         [ CN=  77. 0:  N=  3. 00:  Tp=  1. 10]
07860>         [ I aREC=  4. 00:  SM N=  31. 15:  SMXx=207. 66:  SK=  . 010]
07861>         [ I nter Event Ti me=  12. 00]
07862> R0010: C00334- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07863>       CONTI NUOUS  STANDHYD          1. 0 01: Al - Corri g      15. 75      1. 640 No_date    28: 02    40. 97   . 633     . 000
07864>         [ Xi M=.  42:  TI M=.  52]
07865>         [ LOSS=  2 :  CN=  75. 0]
07866>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =  324. :  MNI =. 013:  SCI =     . 0]
07867>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  324. :  MNI =. 013:  SCI =     . 0]
07868>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
07869>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
07870> R0010: C00335- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07871>       COMPUTE DUALHYD          1. 0 01: Al - Corri g      15. 75      1. 640 No_date    28: 02    40. 97   n/ a      . 000
07872>         Mj or System    /          1. 0 02: Al - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07873>         Mi nor System    \          1. 0 03: Al - MN          15. 75      1. 640 No_date    28: 02    40. 97   n/ a      . 000
07874>         [ Mj Sys St o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
07875> R0010: C00336- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07876>       CONTI NUOUS  NASHYD          1. 0 01: BI          2. 77       . 072 No_date    28: 09    16. 64   . 257     . 000
07877>         [ CN=  56. 0:  N=  3. 00:  Tp=  . 23]
07878>         [ I aREC=  4. 00:  SM N=  79. 69:  SMXx=531. 24:  SK=  . 010]
07879>         [ I nter Event Ti me=  12. 00]
07880> R0010: C00337- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07881>       CONTI NUOUS  STANDHYD          1. 0 01: A4          1. 27       . 178 No_date    28: 00    48. 63   . 752     . 000
07882>         [ Xi M=.  65:  TI M=.  65]
07883>         [ LOSS=  2 :  CN=  75. 0]
07884>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =  253. :  MNI =. 013:  SCI =     . 0]
07885>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  253. :  MNI =. 013:  SCI =     . 0]
07886>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
07887>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
07888> R0010: C00338- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07889>       COMPUTE DUALHYD          1. 0 01: A4          1. 27       . 178 No_date    28: 00    48. 63   n/ a      . 000
07890>         Mj or System    /          1. 0 02: A4 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07891>         Mi nor System    \          1. 0 03: A4 - MN          1. 27       . 178 No_date    28: 00    48. 63   n/ a      . 000
07892>         [ Mj Sys St o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
07893> R0010: C00339- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07894>       ADD HYD                  1. 0 02: A1 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07895>                          +     1. 0 02: A1 - MN          15. 75      1. 640 No_date    28: 02    40. 97   n/ a      . 000
07896>                          +     1. 0 02: corr1 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07897>                          +     1. 0 02: corr1 - MN          15. 87      1. 818 No_date    28: 09    48. 38   n/ a      . 000
07898>                          +     1. 0 02: corr2          12. 47       . 209 No_date    29: 11    26. 85   n/ a      . 000
07899>                          +     1. 0 02: BI          2. 77       . 072 No_date    28: 09    16. 64   n/ a      . 000
07900>                          +     1. 0 02: A4 - MN          1. 27       . 178 No_date    28: 00    48. 63   n/ a      . 000
07901>                    SUM=        1. 0 01: MI 101          48. 13      3. 734 No_date    28: 02    38. 56   n/ a      . 000
07902> R0010: C00340- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07903>       SAVE HYD                 1. 0 01: MI 101          48. 13      3. 734 No_date    28: 02    38. 56   n/ a      . 000
07904>         fname : MI 101. 0010
07905>         remark: Total Flows at  MI 101
07906> R0010: C00341- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07907>       ROUTE PI PE              - >      1. 0 02: MI 101          48. 13      3. 734 No_date    28: 02    38. 56   n/ a      . 000
07908> *     [ RDT=  1. 00]  out <-          1. 0 01: 101- 102          48. 13      3. 662 No_date    28: 03    38. 56   n/ a      . 000
07909>         [ L/ S/ n=  368. /  . 540/ . 013]
07910>         [ Vmx=  3. 084:  Dmx=  1. 088]
07911>         [ Di n=  1. 05:  Used=  1. 33]
07912> R0010: C00342- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07913>       ADD HYD                  1. 0 02: A2 - MN          25. 50      1. 818 No_date    27: 57    40. 97   n/ a      . 000
07914>                          +     1. 0 02: 101- 102          48. 13      3. 662 No_date    28: 03    38. 56   n/ a      . 000
07915>                    SUM=        1. 0 01: MI 102          73. 63      5. 480 No_date    28: 03    39. 39   n/ a      . 000
07916> R0010: C00343- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07917>       SAVE HYD                 1. 0 02: MI 102          73. 63      5. 480 No_date    28: 03    39. 39   n/ a      . 000
07918>         fname : MI 102. 0010
07919>         remark: Total Flows at  MI 102
07920> R0010: C00344- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07921>       CONTI NUOUS  STANDHYD          1. 0 01: A5          1. 60       . 236 No_date    28: 01    51. 11   . 790     . 000
07922>         [ Xi M=.  71:  TI M=.  71]
07923>         [ LOSS=  2 :  CN=  75. 0]
07924>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =  300. :  MNI =. 013:  SCI =     . 0]
07925>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  300. :  MNI =. 013:  SCI =     . 0]
07926>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
07927>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
07928> R0010: C00345- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07929>       ADD HYD                  1. 0 02: A1 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07930>                          +     1. 0 02: A5          1. 60       . 236 No_date    28: 01    51. 11   n/ a      . 000
07931>                    SUM=        1. 0 01: AST          1. 60       . 236 No_date    28: 01    51. 11   n/ a      . 000
07932> R0010: C00346- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07933>       COMPUTE DUALHYD          1. 0 01: AST          1. 60       . 236 No_date    28: 01    51. 11   n/ a      . 000
07934>         Mj or System    /          1. 0 02: A5 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07935>         Mi nor System    \          1. 0 03: A5 - MN          1. 60       . 236 No_date    28: 01    51. 11   n/ a      . 000
07936>         [ Mj Sys St o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
07937> R0010: C00347- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07938>       ROUTE PI PE              - >      1. 0 02: MI 102          73. 63      5. 480 No_date    28: 03    39. 39   n/ a      . 000
07939> *     [ RDT=  1. 00]  out <-          1. 0 01: 102- 103          73. 63      5. 291 No_date    28: 06    39. 39   n/ a      . 000
07940>         [ L/ S/ n=  504. /  . 280/ . 013]
07941>         [ Vmx=  2. 654:  Dmx=  1. 421]
07942>         [ Di n=  1. 50:  Used=  1. 73]
07943> R0010: C00348- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07944>       ADD HYD                  1. 0 02: 102- 103          73. 63      5. 291 No_date    28: 06    39. 39   n/ a      . 000
07945>                          +     1. 0 02: A5 - MN          1. 60       . 236 No_date    28: 01    51. 11   n/ a      . 000
07946>                    SUM=        1. 0 01: MI 103          75. 23      5. 462 No_date    28: 05    39. 64   n/ a      . 000
07947> R0010: C00349- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07948>       SAVE HYD                 1. 0 01: MI 103          75. 23      5. 462 No_date    28: 05    39. 64   n/ a      . 000
07949>         fname : MI 103. 0010
07950>         remark: Total Flows at  MI 103
07951> R0010: C00350- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07952>       ROUTE PI PE              - >      1. 0 02: MI 103          75. 23      5. 462 No_date    28: 05    39. 64   n/ a      . 000
07953>       [ RDT=  1. 00]  out <-          1. 0 01: 103- 104          75. 23      5. 382 No_date    28: 07    39. 64   n/ a      . 000
07954>         [ L/ S/ n=  438. /  . 460/ . 013]
07955>         [ Vmx=  2. 265:  Dmx=  1. 205]
07956>         [ Di n=  1. 65:  Used=  1. 65]
07957> R0010: C00351- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07958>       CONTI NUOUS  STANDHYD          1. 0 01: A6          1. 56       . 232 No_date    28: 00    51. 11   . 790     . 000
07959>         [ Xi M=.  71:  TI M=.  71]
07960>         [ LOSS=  2 :  CN=  75. 0]
07961>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =  280. :  MNI =. 013:  SCI =     . 0]
07962>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  280. :  MNI =. 013:  SCI =     . 0]
07963>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
07964>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
07965> R0010: C00352- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07966>       ADD HYD                  1. 0 02: A5 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07967>                          +     1. 0 02: A6          1. 56       . 232 No_date    28: 00    51. 11   n/ a      . 000
07968>                    SUM=        1. 0 01: A6T          1. 56       . 232 No_date    28: 00    51. 11   n/ a      . 000
07969> R0010: C00353- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07970>       COMPUTE DUALHYD          1. 0 01: A6T          1. 56       . 232 No_date    28: 00    51. 11   n/ a      . 000
07971>         Mj or System    /          1. 0 02: A6 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07972>         Mi nor System    \          1. 0 03: A6 - MN          1. 56       . 232 No_date    28: 00    51. 11   n/ a      . 000
07973>         [ Mj Sys St o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
07974> R0010: C00354- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07975>       ADD HYD                  1. 0 02: A6 - MN          1. 56       . 232 No_date    28: 00    51. 11   n/ a      . 000
07976>                          +     1. 0 02: 103- 104          75. 23      5. 382 No_date    28: 07    39. 64   n/ a      . 000
07977>                          +     1. 0 02: TODD_Mi n          30. 14      3. 314 No_date    28: 00    46. 20   n/ a      . 000
07978>                    SUM=        1. 0 01: MI 104          106. 93      8. 816 No_date    28: 05    41. 66   n/ a      . 000
07979> R0010: C00355- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07980>       SAVE HYD                 1. 0 01: MI 104          106. 93      8. 816 No_date    28: 05    41. 66   n/ a      . 000
07981>         fname : MI 104. 0010
07982>         remark: Total Flows at  MI 104
07983> R0010: C00356- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07984>       CONTI NUOUS  STANDHYD          1. 0 01: B2          12. 31      1. 229 No_date    28: 02    41. 19   . 637     . 000
07985>         [ Xi M=.  41:  TI M=.  54]
07986>         [ LOSS=  2 :  CN=  75. 0]
07987>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =  417. :  MNI =. 013:  SCI =     . 0]
07988>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  417. :  MNI =. 013:  SCI =     . 0]
07989>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
07990>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
07991> R0010: C00357- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07992>       COMPUTE DUALHYD          1. 0 01: B2          12. 31      1. 229 No_date    28: 02    41. 19   n/ a      . 000
07993>         Mj or System    /          1. 0 02: B2 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
07994>         Mi nor System    \          1. 0 03: B2 - MN          12. 31      1. 029 No_date    27: 58    41. 28   n/ a      . 000
07995>         [ Mj Sys St o=. 7604E+02,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
07996> R0010: C00358- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
07997>       ROUTE PI PE              - >      1. 0 02: B2 - MN          12. 31      1. 029 No_date    27: 58    41. 28   n/ a      . 000
07998>       [ RDT=  1. 00]  out <-          1. 0 01: 315- 333          12. 31      1. 019 No_date    28: 12    41. 28   n/ a      . 000
07999>         [ L/ S/ n=  254. /  . 100/ . 013]
08000>         [ Vmx=  1. 220:  Dmx=  . 838]
08001>         [ Di n=  1. 20:  Used=  1. 20]
08002> R0010: C00359- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08003>       CONTI NUOUS  STANDHYD          1. 0 01: B3          5. 59       . 579 No_date    28: 02    41. 19   . 637     . 000
08004>         [ Xi M=.  41:  TI M=.  54]
08005>         [ LOSS=  2 :  CN=  75. 0]
08006>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =  345. :  MNI =. 013:  SCI =     . 0]
08007>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  345. :  MNI =. 013:  SCI =     . 0]
08008>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
08009>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
08010> R0010: C00360- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08011>       COMPUTE DUALHYD          1. 0 01: B3          5. 59       . 579 No_date    28: 02    41. 19   n/ a      . 000
08012>         Mj or System    /          1. 0 02: B3 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08013>         Mi nor System    \          1. 0 03: B3 - MN          5. 59       . 459 No_date    27: 57    41. 35   n/ a      . 000
08014>         [ Mj Sys St o=. 4795E+02,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
08015> R0010: C00361- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08016>       ADD HYD                  1. 0 02: B3 - MN          5. 59       . 459 No_date    27: 57    41. 35   n/ a      . 000
08017>                          +     1. 0 02: 315- 333          12. 31      1. 019 No_date    28: 12    41. 28   n/ a      . 000
08018>                    SUM=        1. 0 01: MI 333          17. 90      1. 478 No_date    28: 12    41. 30   n/ a      . 000
08019> R0010: C00362- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08020>       SAVE HYD                 1. 0 01: MI 333          17. 90      1. 478 No_date    28: 12    41. 30   n/ a      . 000
08021>         fname : MI 333. 0010
08022>         remark: Total Flows at  MI 333
08023> R0010: C00363- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08024>       ROUTE PI PE              - >      1. 0 02: MI 333          17. 90      1. 478 No_date    28: 12    41. 30   n/ a      . 000
08025> *     [ RDT=  1. 00]  out <-          1. 0 01: 333- 335          17. 90      1. 450 No_date    28: 14    41. 30   n/ a      . 000
08026>         [ L/ S/ n=  251. /  . 100/ . 013]
08027>         [ Vmx=  1. 300:  Dmx=  1. 054]
08028>         [ Di n=  1. 20:  Used=  1. 28]
08029> R0010: C00364- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08030>       ROUTE PI PE              - >      1. 0 02: 333- 335          17. 90      1. 450 No_date    28: 14    41. 30   n/ a      . 000
08031> *     [ RDT=  1. 00]  out <-          1. 0 01: 335- 338          17. 90      1. 447 No_date    28: 14    41. 30   n/ a      . 000
08032>         [ L/ S/ n=  185. /  . 100/ . 013]
08033>         [ Vmx=  1. 294:  Dmx=  1. 047]
08034>         [ Di n=  1. 20:  Used=  1. 28]
08035> R0010: C00365- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08036>       ROUTE PI PE              - >      1. 0 02: 335- 338          17. 90      1. 447 No_date    28: 14    41. 30   n/ a      . 000
08037> *     [ RDT=  1. 00]  out <-          1. 0 01: 338- 340          17. 90      1. 418 No_date    28: 15    41. 30   n/ a      . 000
08038>         [ L/ S/ n=  233. /  . 100/ . 013]
08039>         [ Vmx=  1. 325:  Dmx=  . 963]
08040>         [ Di n=  1. 35:  Used=  1. 35]
08041> R0010: C00366- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08042>       CONTI NUOUS  STANDHYD          1. 0 01: B4          7. 60       . 768 No_date    28: 02    41. 19   . 637     . 000
08043>         [ Xi M=.  41:  TI M=.  54]
08044>         [ LOSS=  2 :  CN=  75. 0]
08045>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =    40. :  MNI =. 250:  SCI =     . 0]
08046>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  388. :  MNI =. 013:  SCI =     . 0]
08047>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
08048>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
08049> R0010: C00367- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08050>       COMPUTE DUALHYD          1. 0 01: B4          7. 60       . 768 No_date    28: 02    41. 19   n/ a      . 000
08051>         Mj or System    /          1. 0 02: B4 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08052>         Mi nor System    \          1. 0 03: B4 - MN          7. 60       . 655 No_date    27: 58    41. 31   n/ a      . 000
08053>         [ Mj Sys St o=. 3770E+02,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
08054> R0010: C00368- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08055>       ADD HYD                  1. 0 02: 338- 340          17. 90      1. 418 No_date    28: 15    41. 30   n/ a      . 000
08056>                          +     1. 0 02: B4 - MN          7. 60       . 655 No_date    27: 58    41. 31   n/ a      . 000
08057>                    SUM=        1. 0 01: MI 340          25. 50      2. 022 No_date    28: 12    41. 30   n/ a      . 000
08058> R0010: C00369- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08059>       SAVE HYD                 1. 0 01: MI 340          25. 50      2. 022 No_date    28: 12    41. 30   n/ a      . 000
08060>         fname : MI 340. 0010
08061>         remark: Total Flows at  MI 340
08062> R0010: C00370- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08063>       ROUTE PI PE              - >      1. 0 02: MI 340          25. 50      2. 022 No_date    28: 12    41. 30   n/ a      . 000
08064>       [ RDT=  1. 00]  out <-          1. 0 01: 340- 104          25. 50      1. 986 No_date    28: 12    41. 30   n/ a      . 000
08065>         [ L/ S/ n=  240. /  . 150/ . 013]
08066>         [ Vmx=  1. 706:  Dmx=  . 895]
08067>         [ Di n=  1. 65:  Used=  1. 65]
08068> R0010: C00371- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08069>       ADD HYD                  1. 0 02: 340- 104          25. 50      1. 986 No_date    28: 12    41. 30   n/ a      . 000
08070>                          +     1. 0 02: MI 104          106. 93      8. 816 No_date    28: 05    41. 66   n/ a      . 000
08071>                    SUM=        1. 0 01: MI 104T          132. 43      10. 636 No_date    28: 05    41. 59   n/ a      . 000
08072> R0010: C00372- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08073>       ROUTE PI PE              - >      1. 0 02: MI 104T          132. 43      10. 636 No_date    28: 05    41. 59   n/ a      . 000
08074> *     [ RDT=  1. 00]  out <-          1. 0 01: 104- 105          132. 43      10. 007 No_date    28: 06    41. 59   n/ a      . 000
08075>         [ L/ S/ n=  380. /  . 100/ . 013]
08076>         [ Vmx=  2. 071:  Dmx=  1. 952]
08077>         [ HDTH=  2. 30:  WDTH=  2. 63]
08078> R0010: C00373- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08079>       CONTI NUOUS  STANDHYD          1. 0 01: B5          2. 20       . 291 No_date    28: 00    45. 32   . 701     . 000
08080>         [ Xi M=.  57:  TI M=.  57]
08081>         [ LOSS=  2 :  CN=  75. 0]
08082>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =    40. :  MNI =. 250:  SCI =     . 0]
08083>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  187. :  MNI =. 013:  SCI =     . 0]
08084>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
08085>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
08086> R0010: C00374- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08087>       COMPUTE DUALHYD          1. 0 01: B5          2. 20       . 291 No_date    28: 00    45. 32   n/ a      . 000
08088>         Mj or System    /          1. 0 02: B5 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08089>         Mi nor System    \          1. 0 03: B5 - MN          2. 20       . 260 No_date    27: 57    45. 39   n/ a      . 000
08090>         [ Mj Sys St o=. 6886E+01,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
08091> R0010: C00375- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08092>       CONTI NUOUS  STANDHYD          1. 0 01: A8          . 96       . 151 No_date    28: 00    51. 11   . 790     . 000
08093>         [ Xi M=.  71:  TI M=.  71]
08094>         [ LOSS=  2 :  CN=  75. 0]
08095>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =    40. :  MNI =. 250:  SCI =     . 0]
08096>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  186. :  MNI =. 013:  SCI =     . 0]
08097>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
08098>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
08099> R0010: C00376- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08100>       ADD HYD                  1. 0 02: A6 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08101>                          +     1. 0 02: A8          . 96       . 151 No_date    28: 00    51. 11   n/ a      . 000
08102>                    SUM=        1. 0 01: AST          . 96       . 151 No_date    28: 00    51. 11   n/ a      . 000
08103> R0010: C00377- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08104>       COMPUTE DUALHYD          1. 0 01: AST          . 96       . 151 No_date    28: 00    51. 11   n/ a      . 000
08105>         Mj or System    /          1. 0 02: A8 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08106>         Mi nor System    \          1. 0 03: A8 - MN          . 96       . 151 No_date    28: 00    51. 11   n/ a      . 000
08107>         [ Mj Sys St o=. 0000E+00,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
08108> R0010: C00378- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08109>       ADD HYD                  1. 0 02: 104- 105          132. 43      10. 007 No_date    28: 06    41. 59   n/ a      . 000
08110>                          +     1. 0 02: B5 - MN          2. 20       . 260 No_date    27: 57    45. 39   n/ a      . 000
08111>                          +     1. 0 02: A8 - MN          . 96       . 151 No_date    28: 00    51. 11   n/ a      . 000
08112>                          +     1. 0 02: TODD_MNj          . 00       . 000 No_date    28: 00    44. 90   n/ a      . 000
08113>                    SUM=        1. 0 01: MI 105          135. 59      10. 343 No_date    28: 05    41. 72   n/ a      . 000
08114> R0010: C00379- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08115>       SAVE HYD                 1. 0 01: MI 105          135. 59      10. 343 No_date    28: 05    41. 72   n/ a      . 000
08116>         fname : MI 105. 0010
08117>         remark: Total Flows at  MI 105
08118> R0010: C00380- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08119> *     DI VERT HYD              - >      1. 0 01: A8 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08120>                    diverted <=          1. 0 02: A8 - MI - JR          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08121>                    diverted <=          1. 0 03: A8 - MI - B6          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08122> R0010: C00381- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08123>       DI VERT HYD              - >      1. 0 01: MI 105          135. 59      10. 343 No_date    28: 05    41. 72   n/ a      . 000
08124>                    diverted <=          1. 0 02: MI 105- JR          28. 70      7. 335 No_date    28: 05    41. 72   n/ a      . 000
08125>                    diverted <=          1. 0 03: MI 105- B6          106. 90      3. 008 No_date    28: 05    41. 72   n/ a      . 000
08126> R0010: C00382- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08127>       CONTI NUOUS  STANDHYD          1. 0 01: B7          7. 19       . 792 No_date    28: 01    41. 19   . 637     . 000
08128>         [ Xi M=.  41:  TI M=.  54]
08129>         [ LOSS=  2 :  CN=  75. 0]
08130>         [ Pervi ous      area:  I Aper =  4. 67:  SLPP=1. 00:  LGI =    40. :  MNI =. 250:  SCI =     . 0]
08131>         [ I mpervi ous   area:  I Aimp =  1. 57:  SLPI =1. 00:  LGI =  211. :  MNI =. 013:  SCI =     . 0]
08132>         [ I aREC I mp=    4. 00:  I aREC per =    4. 00]
08133>         [ SM N=  33. 81:  SMXx=225. 43:  SK=  . 010]
08134> R0010: C00383- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08135>       ADD HYD                  1. 0 02: B4 - MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08136>                          +     1. 0 02: B7          7. 19       . 792 No_date    28: 01    41. 19   n/ a      . 000
08137>                    SUM=        1. 0 01: B7- B4MI          7. 19       . 792 No_date    28: 01    41. 19   n/ a      . 000
08138> R0010: C00384- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08139>       COMPUTE DUALHYD          1. 0 01: B7- B4MI          7. 19       . 792 No_date    28: 01    41. 19   n/ a      . 000
08140>         Mj or System    /          1. 0 02: B7R- MI          . 00       . 000 No_date    0: 00      . 00   n/ a      . 000
08141>         Mi nor System    \          1. 0 03: B7R- MN          7. 19       . 629 No_date    27: 55    41. 31   n/ a      . 000
08142>         [ Mj Sys St o=. 5641E+02,  Tot Of Vol =. 0000E+00,  N- Of =      0,  Tot Dur Of =      0. hrs]
08143> R0010: C00385- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08144>       ROUTE PI PE              - >      1. 0 02: B7R- MN          7. 19       . 629 No_date    27: 55    41. 31   n/ a      . 000
08145> *     [ RDT=  1. 00]  out <-          1. 0 01: 360- 106A          7. 19       . 628 No_date    28: 11    41. 31   n/ a      . 000
08146>         [ L/ S/ n=  167. /  . 100/ . 013]
08147>         [ Vmx=  1. 089:  Dmx=  . 665]
08148>         [ Di n=  1. 05:  Used=  1. 05]
08149> R0010: C00386- ---------- DTmi n- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
08150>       CONTI NUOUS  STANDHYD          1. 0 01: B6          3. 29       .
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08229>         remark: Total Flows at MH06
08230> R0010: C00400-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08231>         ROUTE PIPE      ->      1. 0 02: MH06       119. 82      3. 992 No_date   28: 02    41. 87   n/a      .000
08232> *       [ RDT= 1. 00] out <-    1. 0 01: 106- 107   119. 82      3. 962 No_date   28: 03    41. 87   n/a      .000
08233>          [ L/ S/ n=  123. /  . 100/ . 013]
08234>          [ Vmx= 1. 666: Dmx= 1. 530]
08235>          [ Dia= 1. 80: Dused= 1. 86]
08236> R0010: C00401-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08237>         CONTI NUOUS STANDHYD    1. 0 01: Al0        4. 14      . 416 No_date   28: 01    38. 46   . 595    .000
08238>          [ XI MP=  35: TI MP=  47]
08239>          [ LOSS=  2 : CN=  75. 0]
08240>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08241>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
08242>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08243>          [ SMI N=  33. 81: SMXx=225. 43: SK=  . 010]
08244> R0010: C00402-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08245>         COMPUTE DUALHYD         1. 0 01: Al0        4. 14      . 416 No_date   28: 01    38. 46   n/a      .000
08246>         Major System    /       1. 0 02: Al0- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08247>         Minor System    \       1. 0 03: Al0- MN    4. 14      . 310 No_date   27: 55    38. 48   n/a      .000
08248>          [ MJ SysSto=. 4172E+02,  Tot Or f Vol =. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
08249> R0010: C00403-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08250>         CONTI NUOUS STANDHYD    1. 0 01: Al1        10. 61     1. 251 No_date   28: 01    45. 36   . 701    .000
08251>          [ XI MP=  53: TI MP=  62]
08252>          [ LOSS=  2 : CN=  75. 0]
08253>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08254>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
08255>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08256>          [ SMI N=  33. 81: SMXx=225. 43: SK=  . 010]
08257> R0010: C00404-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08258>         COMPUTE DUALHYD         1. 0 01: Al1        10. 61     1. 251 No_date   28: 01    45. 36   n/a      .000
08259>         Major System    /       1. 0 02: Al1- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08260>         Minor System    \       1. 0 03: Al1- MN    10. 61     . 993 No_date   27: 56    45. 38   n/a      .000
08261>          [ MJ SysSto=. 1016E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
08262> R0010: C00405-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08263>         ADD HYD                 1. 0 02: 106- 107   119. 82      3. 962 No_date   28: 03    41. 87   n/a      .000
08264>                         +       1. 0 02: Al0- MN    4. 14      . 310 No_date   27: 55    38. 48   n/a      .000
08265>                         +       1. 0 02: Al1- MN    10. 61     . 993 No_date   27: 56    45. 38   n/a      .000
08266>                         SUM=    1. 0 01: MH07       134. 57    5. 265 No_date   28: 03    42. 04   n/a      .000
08267> R0010: C00406-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08268>         SAVE HYD                1. 0 01: MH07       134. 57    5. 265 No_date   28: 03    42. 04   n/a      .000
08269>          fname : MH07. 0010
08270>          remark: Total Flows at MH07
08271> R0010: C00407-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08272>         ROUTE PIPE      ->      1. 0 02: MH07       134. 57    5. 265 No_date   28: 03    42. 04   n/a      .000
08273> *       [ RDT= 1. 00] out <-    1. 0 01: 107- 119   134. 57    5. 251 No_date   28: 05    42. 04   n/a      .000
08274>          [ L/ S/ n=  114. /  . 120/ . 013]
08275>          [ Vmx= 1. 912: Dmx= 1. 640]
08276>          [ Dia= 1. 80: Dused= 2. 00]
08277> R0010: C00408-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08278>         ROUTE PIPE      ->      1. 0 02: 107- 119   134. 57    5. 251 No_date   28: 05    42. 04   n/a      .000
08279> *       [ RDT= 1. 00] out <-    1. 0 01: 119- 108   134. 57    5. 248 No_date   28: 06    42. 04   n/a      .000
08280>          [ L/ S/ n=   66. /  . 120/ . 013]
08281>          [ Vmx= 1. 911: Dmx= 1. 639]
08282>          [ Dia= 1. 80: Dused= 2. 00]
08283> R0010: C00409-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08284>         CONTI NUOUS STANDHYD    1. 0 01: Al2        12. 29     1. 385 No_date   28: 01    41. 19   . 637    .000
08285>          [ XI MP=  41: TI MP=  54]
08286>          [ LOSS=  2 : CN=  75. 0]
08287>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08288>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
08289>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08290>          [ SMI N=  33. 81: SMXx=225. 43: SK=  . 010]
08291> R0010: C00410-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08292>         COMPUTE DUALHYD         1. 0 01: Al2        12. 29     1. 385 No_date   28: 01    41. 19   n/a      .000
08293>         Major System    /       1. 0 02: Al2- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08294>         Minor System    \       1. 0 03: Al2- MN    12. 29     1. 029 No_date   27: 54    41. 27   n/a      .000
08295>          [ MJ SysSto=. 1401E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
08296> R0010: C00411-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08297>         CONTI NUOUS STANDHYD    1. 0 01: Al3        2. 59      . 368 No_date   28: 01    51. 11   . 790    .000
08298>          [ XI MP=  71: TI MP=  71]
08299>          [ LOSS=  2 : CN=  75. 0]
08300>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08301>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
08302>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08303>          [ SMI N=  33. 81: SMXx=225. 43: SK=  . 010]
08304> R0010: C00412-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08305>         COMPUTE DUALHYD         1. 0 01: Al3        2. 59      . 368 No_date   28: 01    51. 11   n/a      .000
08306>         Major System    /       1. 0 02: Al3- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08307>         Minor System    \       1. 0 03: Al3- MN    2. 59      . 368 No_date   28: 01    51. 11   n/a      .000
08308> R0010: C00413-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08309>         CONTI NUOUS STANDHYD    1. 0 01: Pond- Block        2. 94      . 309 No_date   28: 00    38. 90   . 601    .000
08310>          [ XI MP=  41: TI MP=  41]
08311>          [ LOSS=  2 : CN=  75. 0]
08312>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08313>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
08314>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08315>          [ SMI N=  33. 81: SMXx=225. 43: SK=  . 010]
08316> R0010: C00414-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08317>         ADD HYD                 1. 0 02: 119- 108   134. 57    5. 248 No_date   28: 06    42. 04   n/a      .000
08318>                         +       1. 0 02: Al3- MN    2. 59      . 368 No_date   28: 01    51. 11   n/a      .000
08319>                         +       1. 0 02: Al2- MN    12. 29     1. 029 No_date   27: 54    41. 27   n/a      .000
08320>                         SUM=    1. 0 01: MH08       149. 45    6. 598 No_date   28: 04    42. 14   n/a      .000
08321> R0010: C00415-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08322>         SAVE HYD                1. 0 01: MH08       149. 45    6. 598 No_date   28: 04    42. 14   n/a      .000
08323>          fname : MH08. 0010
08324>          remark: Total Flows at MH08
08325> R0010: C00416-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08326>         ROUTE PIPE      ->      1. 0 02: MH08       149. 45    6. 598 No_date   28: 04    42. 14   n/a      .000
08327> *       [ RDT= 1. 00] out <-    1. 0 01: 108- 116   149. 45    6. 590 No_date   28: 05    42. 14   n/a      .000
08328>          [ L/ S/ n=   77. /  . 130/ . 013]
08329>          [ Vmx= 2. 085: Dmx= 1. 759]
08330>          [ Dia= 1. 80: Dused= 2. 14]
08331> R0010: C00417-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08332>         ROUTE PIPE      ->      1. 0 02: 108- 116   149. 45    6. 590 No_date   28: 05    42. 14   n/a      .000
08333> *       [ RDT= 1. 00] out <-    1. 0 01: 116- corrig        149. 45    6. 577 No_date   28: 06    42. 14   n/a      .000
08334>          [ L/ S/ n=   80. /  . 130/ . 013]
08335>          [ Vmx= 2. 084: Dmx= 1. 758]
08336>          [ Dia= 1. 80: Dused= 2. 14]
08337> R0010: C00418-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08338>         ADD HYD                 1. 0 02: 116- corrig        149. 45    6. 577 No_date   28: 06    42. 14   n/a      .000
08339>                         +       1. 0 02: Pond- Block        2. 94      . 309 No_date   28: 00    38. 90   n/a      .000
08340>                         SUM=    1. 0 01: Corrigan   152. 39    6. 779 No_date   28: 05    42. 08   n/a      .000
08341> R0010: C00419-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08342>         SAVE HYD                1. 0 01: Corrigan   152. 39    6. 779 No_date   28: 05    42. 08   n/a      .000
08343>          fname : Corrigan. 0010
08344>          remark: HYD_COMMENT=[" Total Flows at Corrigan Pond]
08345> R0010: C00420-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08346>         ROUTE RESERVOIR ->      1. 0 02: Corrigan   152. 39    6. 779 No_date   28: 05    42. 08   n/a      .000
08347>                         out <-  1. 0 01: Co- P      152. 39    6. 100 No_date   28: 15    42. 07   n/a      .000
08348>                         overflow <=     1. 0 03: Co- P- OVF     . 00       . 000 No_date   0: 00     . 00     n/a      .000
08349>          [ MJ StOtked=. 1015E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
08350> R0010: C00421-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08351>         ADD HYD                 1. 0 02: Co- P- OVF     . 00       . 000 No_date   0: 00     . 00     n/a      .000
08352>                         +       1. 0 02: Co- P      152. 39    6. 100 No_date   28: 15    42. 07   n/a      .000
08353>                         +       1. 0 02: N_TO       54837. 78  85. 488 No_date   37: 22    23. 06   n/a      .000
08354>                         +       1. 0 02: MH05- JR   28. 70     7. 335 No_date   28: 05    41. 72   n/a      .000
08355>                         +       1. 0 02: A8- MI - JR        . 00       . 000 No_date   0: 00     . 00     n/a      .000
08356>                         +       1. 0 02: A9- MI     . 00       . 000 No_date   0: 00     . 00     n/a      .000
08357>                         +       1. 0 02: A10- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08358>                         +       1. 0 02: A11- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08359>                         +       1. 0 02: A12- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08360>                         +       1. 0 02: A13- MI    . 00       . 000 No_date   0: 00     . 00     n/a      .000
08361>                         SUM=    1. 0 01: corrig     55018. 86  85. 837 No_date   37: 21    23. 12   n/a      .000
08362> R0010: C00422-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08363>         SAVE HYD                1. 0 01: corrig     55018. 86  85. 837 No_date   37: 21    23. 12   n/a      .000
08364>          fname : corrig. 0010
08365>          remark: Total Flows at Corrigan Pond
08366> #*************************************************************************
08367> #     Corrigan Pond 1
08368> #     - Rating curve obtained from Barrhaven South MSS modeling
08369> #     - Tributary Drainage Area to MSS Pond 1 = 145 ha
08370> #*************************************************************************
08371> #
08372> # Hydrograph from Corrigan Drain routed to Jockvale Road
08373> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
08374> #
08375> R0010: C00423-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08376>         ROUTE CHANNEL   ->      1. 0 02: corrig     55018. 86  85. 837 No_date   37: 21    23. 12   n/a      .000
08377>          [ RDT= 1. 00] out <-    1. 0 01: N_MI       55018. 86  85. 828 No_date   37: 24    23. 12   n/a      .000
08378>          [ L/ S/ n=  580. /  . 445/ . 045]
08379>          [ Vmx= 1. 788: Dmx= 1. 629]
08380> #*************************************************************************
08381> #     Catchment MLLS
08382> #     - To SWM Facility north of the Jock
08383> #     - Primarily residental development
08384> #*************************************************************************
08385> R0010: C00424-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08386>         CONTI NUOUS STANDHYD    1. 0 01: MLLS       175. 99    12. 212 No_date   28: 07    36. 76   . 568    .000
08387>          [ XI MP=  38: TI MP=  38]
08388>          [ LOSS=  2 : CN=  74. 0]
08389>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08390>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1118. : MNI =. 013: SCI =    . 0]
08391>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08392>          [ SMI N=  36. 67: SMXx=244. 49: SK=  . 010]
08393> #*************************************************************************
08394> #     Chapman Mills SWM Pond
08395> #     - Rating curve obtained from CCL hydraulic modeling
08396> #*************************************************************************
08397> R0010: C00425-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08398>         ROUTE RESERVOIR ->      1. 0 02: MLLS       175. 99    12. 212 No_date   28: 07    36. 76   n/a      .000
08399>                         out <-  1. 0 01: MLLL_P     175. 99    4. 030 No_date   28: 43    36. 76   n/a      .000
08400>                         overflow <=     1. 0 03: MLL- OV        . 00       . 000 No_date   0: 00     . 00     n/a      .000
08401>          [ MJ StOtked=. 2299E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
08402> R0010: C00426-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08403>         ADD HYD                 1. 0 02: N_MI       55018. 86  85. 828 No_date   37: 24    23. 12   n/a      .000
08404>                         +       1. 0 02: MLL- OV        . 00       . 000 No_date   0: 00     . 00     n/a      .000
08405>                         +       1. 0 02: MLLL_P     175. 99    4. 030 No_date   28: 43    36. 76   n/a      .000
08406>                         SUM=    1. 0 01: SN_MI      55194. 85  86. 233 No_date   37: 23    23. 16   n/a      .000
08407> R0010: C00427-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08408>         SAVE HYD                1. 0 01: SN_MI      55194. 85  86. 233 No_date   37: 23    23. 16   n/a      .000
08409>          fname : SN_MI. 0010
08410>          remark: Total Flows at Jockvale Road
08411> #
08412> # Hydrograph from Jockvale Road routed to Heart's Desire
08413> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
08414> #
08415> R0010: C00428-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08416>         ROUTE CHANNEL   ->      1. 0 02: SN_MI      55194. 85  86. 233 No_date   37: 23    23. 16   n/a      .000
08417>          [ RDT= 1. 00] out <-    1. 0 01: N_DE       55194. 85  86. 067 No_date   37: 44    23. 16   n/a      .000
08418>          [ L/ S/ n=  1962. /  . 223/ . 045]
08419>          [ Vmx= 1. 393: Dmx= 2. 071]
08420> #*************************************************************************
08421> #     Catchment DESIRE
08422> #     - To Jock River (north of the Jock)
08423> #     - Rural-estate subdivision (Heart's Desire Community)
08424> #*************************************************************************
08425> R0010: C00429-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08426>         CONTI NUOUS STANDHYD    1. 0 01: DESIRE     23. 78     1. 694 No_date   28: 03    32. 93   . 509    .000
08427>          [ XI MP=  25: TI MP=  25]
08428>          [ LOSS=  2 : CN=  77. 0]
08429>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08430>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1311. : MNI =. 013: SCI =    . 0]
08431>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08432>          [ SMI N=  31. 15: SMXx=207. 66: SK=  . 010]
08433> #*************************************************************************
08434> #     Catchment JOCKVA
08435> #     - To Jockvale SWM Facility
08436> #     - Residential development & golf course
08437> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
08438> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX- LAND 32.5 ha as
08439> #*************************************************************************
08440> R0010: C00430-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08441>         CONTI NUOUS STANDHYD    1. 0 01: JOCKVA     225. 13    17. 670 No_date   28: 08    41. 86   . 647    .000
08442>          [ XI MP=  50: TI MP=  50]
08443>          [ LOSS=  2 : CN=  74. 0]
08444>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
08445>          [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =1311. : MNI =. 013: SCI =    . 0]
08446>          [ I aREC i mp=   4. 00: I aREC per=   4. 00]
08447>          [ SMI N=  36. 67: SMXx=244. 49: SK=  . 010]
08448> R0010: C00431-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08449>         ADD HYD                 1. 0 02: EX- LAND- MN       32. 50     2. 275 No_date   27: 55    41. 99   n/a      .000
08450>                         +       1. 0 02: JOCKVA     225. 13    17. 670 No_date   28: 08    41. 86   n/a      .000
08451>                         +       1. 0 02: B2- MI     . 00       . 000 No_date   0: 00     . 00     n/a      .000
08452>                         +       1. 0 02: B3- MI     . 00       . 000 No_date   0: 00     . 00     n/a      .000
08453>                         SUM=    1. 0 01: JOCKVA- TO 257. 63    19. 945 No_date   28: 08    41. 88   n/a      .000
08454> R0010: C00432-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08455>         SAVE HYD                1. 0 01: JOCKVA- TO 257. 63    19. 945 No_date   28: 08    41. 88   n/a      .000
08456>          fname : JOCKVA- TO. 0010
08457>          remark: Total Flows at KB first pond
08458> #*************************************************************************
08459> #     Jockvale SWM Facility
08460> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
08461> #*************************************************************************
08462> R0010: C00433-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08463>         ROUTE RESERVOIR ->      1. 0 02: JOCKVA- TO 257. 63    19. 945 No_date   28: 08    41. 88   n/a      .000
08464>                         out <=  1. 0 01: JOCK_P     257. 63    6. 542 No_date   28: 42    41. 88   n/a      .000
08465>                         overflow <=     1. 0 03: JO- OVF        . 00       . 000 No_date   0: 00     . 00     n/a      .000
08466>          [ MJ StOtked=. 4673E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=    0,  Tot Dur Or f=    0. hrs]
08467> R0010: C00434-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08468>         ADD HYD                 1. 0 02: N_DE       55194. 85  86. 067 No_date   37: 44    23. 16   n/a      .000
08469>                         +       1. 0 02: DESIRE     23. 78     1. 694 No_date   28: 03    32. 93   n/a      .000
08470>                         +       1. 0 02: JO- OVF        . 00       . 000 No_date   0: 00     . 00     n/a      .000
08471>                         +       1. 0 02: JOCK_P     257. 63    6. 542 No_date   28: 42    41. 88   n/a      .000
08472>                         SUM=    1. 0 01: SN_DE      55476. 26  86. 690 No_date   37: 37    23. 26   n/a      .000
08473> R0010: C00435-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08474>         SAVE HYD                1. 0 01: SN_DE      55476. 26  86. 690 No_date   37: 37    23. 26   n/a      .000
08475>          fname : SN_DE. 0010
08476>          remark: Total Flows at Heart's Desire
08477> #
08478> # Hydrograph from Heart's Desire routed to Rideau River
08479> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
08480> #
08481> R0010: C00436-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08482>         ROUTE CHANNEL   ->      1. 0 02: SN_DE      55476. 26  86. 690 No_date   37: 37    23. 26   n/a      .000
08483>          [ RDT= 1. 00] out <-    1. 0 01: N1         55476. 26  86. 683 No_date   37: 44    23. 25   n/a      .000
08484>          [ L/ S/ n=  563. /  . 967/ . 045]
08485>          [ Vmx= 1. 789: Dmx= 1. 038]
08486> #*************************************************************************
08487> #     Catchment S- 2
08488> #     - To Jock River (north and south)
08489> #     - Undeveloped floodplain and river
08490> #*************************************************************************
08491> R0010: C00437-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08492>         CONTI NUOUS NASHYD      1. 0 01: S- 2       102. 94    2. 957 No_date   28: 20    23. 57   . 364    .000
08493>          [ CN=  72. 0: N=  3. 00: Tp=   . 40]
08494>          [ I aREC=  4. 00: SMI N=  39. 75: SMXx=264. 99: SK=  . 010]
08495>          [ I nterEventTime=   12. 00]
08496> R0010: C00438-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08497>         ADD HYD                 1. 0 02: N1         55476. 26  86. 683 No_date   37: 44    23. 25   n/a      .000
08498>                         +       1. 0 02: S- 2       102. 94    2. 957 No_date   28: 20    23. 57   n/a      .000
08499>                         SUM=    1. 0 01: SN_N1      55579. 20  86. 846 No_date   37: 44    23. 26   n/a      .000
08500> R0010: C00439-------------DTmin-1 D: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
08501>         SAVE HYD                1. 0 01: SN_N1      55579. 20  86. 846 No_date   37: 44    23. 26   n/a      .000
08502>          fname : SN_N1. 0010
08503>          remark: Total Flows at Rideau River
08504> ##########################################################################
08505>  ** END OF RUN :   24
08506>
08507> **************************************************************************
08508>
08509>
08510>
08511>
08512>
08513>  RUN#: COMMAND#
08514> R0025: C00001-------------------------------------------------------------
08515>         START
08516>          [ TZERO =     . 00 hrs on         0]
08517>          [ METOUT=    2    ( 1= imperial, 2= metric output) ]
08518>          [ NSTORM=    1 ]
08519>          [ NRUN  = 0025 ]
08520> **************************************************************************
08521> #  SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
08522> **************************************************************************
08523> #   Project Name: [ Jock Riv er]     Project Number: [ 1474- 16]
08524> #   Date          : 04- 03- 2021
08525> #   Modeller      : [ MM]
08526> #   Company       : JFSAi nc.
08527> #   License #     :  2549237
08528> **************************************************************************
08529> # CALIBRATION OF SUMMER MODEL PARAMETERS
08530> # USING CONTINUOUS SIMULATIONS
08531> # Rainfall data from JFSA Campaign installed at site + other gauges by the City
08532> # Use data collected from May 1st to July 14, 2003
08533> # 2020- 11- 30 change TMSTO in COMPUTE DUALHYD ( TMSTO = 0. 1 instead of 0. 0001)
08534> # 2020- 12- 01 correct pond curve values
08535> # 2020- 12- 01 change W_CLAR_BRAZ XIMP to 0. 55, SLPI =[ 0. 5]( %) ( impervious slope), and LGI up to 700m
08536> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 2462 ( NHYDout=[" N_TO" ] , NHYDin=[" SN_TO" ]) from 0. 033 %( as per S
08537> # 2021- 02- 19 Change the slope for ROUTE CHANNEL Station 5002 ( NHYDout=[" N_MC" ] , NHYDin=[" SN_CE" ]) from 0. 01 %( as per St
08538> #
08539> #-------------------------------------------------------------------------
08540> R0025: C00002-------------------------------------------------------------
08541>         READ STORM
08542>          Filename = storm 001
08543>          Comment  = Pluie SCS de 24 hres 1: 25 ans pour Ottawa CDA
08544>          [ SDT=10. 00: SDUR=   24. 00: PTOT=   74. 39]
08545> R0025: C00003-------------------------------------------------------------
08546>         MODIFY STORM
08547>          [ REACT=    1. 00: TSHIFT= 960. 00 min]
08548>          [ SDT=10. 00: SDUR=   40. 00: PTOT=   74. 39]
08549> R0025: C00004-------------------------------------------------------------
08550>         DEFAULT VALUES
08551>          Filename = T: \ PROJ\ 1474- 16\ Design\ 20201026- QuantityControl Analysis\ SWMHYMO\ SMR- Model\ updated3\ CtiGate. DEF
08552>          [ CASEdv   = 1 (read and print data)
08553>          FileTitle= File comment: [ Based on varius calibration exercises in Ont a
08554>                     THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
08555>          [ Fo= 76. 20 mm/ hr] [ Fc=13. 20 mm/ hr] [ DCAY=  4. 14 /hr] [ F=   . 00 mm]
08556>          Parameters for PERVIOUS surfaces in STANDHYD:
08557>          [ I Aper=    4. 67 mm] [ LGP=50. 00 m] [ MNP=   . 250]
08558>          Parameters for IMPERVIOUS surfaces in STANDHYD:
08559>          [ I Aimp=    1. 57 mm] [ CLI =  1. 50]     [ MNI =  . 013]
08560>          Parameters used in NASHYD:
08561>          [ Ia=    4. 67 mm] [ N=  3. 00]
08562>          Average monthly Pan Evaporation data in     ( mm)
08563>          JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
08564>          . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
08565>          Average monthly Potential Evapotranspiration in     ( mm)
08566>          JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
08567>          . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00   . 00
08568> R0025: C00005-------------------------------------------------------------
08569>         COMPUTE API
08570>          [ APIini = 50. 00: APIkdy=  . 8500: APIkdt=  . 9989]
08571>          [ APImx=106. 76: APIavg=  65. 09: APImin=  44. 87]
08572> #
08573> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
08574> # of 1. 32
08575> R0025: C00006-------------------------------------------------------------
08576>         CONTI NUOUS NASHYD      1. 0 01: JR_HW      3680. 00   15. 500 No_date   36: 57    25. 80   . 347    .000
08577>          [ CN=  64. 0: N=  3. 00: Tp=   7. 13]
08578>          [ I aREC=  4. 00: SMI N=  39. 05: SMXx=380. 32: SK=  . 010]
08579>          [ I nterEventTime=   12. 00]
08580> #
08581> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
08582> # of 1. 32
08583> R0025: C00007-------------------------------------------------------------
08584>         CONTI NUOUS NASHYD      1. 0 01: SW_13      971. 00    5. 778 No_date   32: 34    24. 02   . 323    .000
08585>          [ CN=  61. 0: N=  3. 00: Tp=   3. 76]
08586>          [ I aREC=  4. 00: SMI N=  64. 50: SMXx=430. 01: SK=  . 010]
08587>          [ I nterEventTime=   12. 00]
08588> #
08589> # The Tp was modified according to a Peak Reduction factor ( MTO- Chart B2- 4)
08590> # of 1. 80
08591> R0025: C00008-------------------------------------------------------------
08592>         CONTI NUOUS NASHYD      1. 0 01: JR_GWM     3074. 00   7. 521 No_date   39: 59    20. 65   . 278    .000
08593>          [ CN=  55. 0: N=  3. 00: Tp=1. 33]
08594>          [ I aREC=  4. 00: SMI N=  83. 24: SMXx=554. 96: SK=  . 010]
08595>          [ I nterEventTime=   12. 00]
08596> R0025: C00009-------------------------------------------------------------
08597>         CONTI NUOUS NASHYD      1. 0 01: JR_ASH     1781. 00   14. 166 No_date   32: 40    31. 50   . 423    .000
08598>          [ CN=  72. 0: N=  3. 00: Tp=   3. 91]
08599>          [ I aREC=  4. 00: SMI N=  39. 75: SMXx=264. 99: SK=  . 010]
08600>          [ I nterEventTime=   12. 00]
08601> R0025: C00010-------------------------------------------------------------
08602>         CONTI NUOUS NASHYD      1. 0 01: SW_11      500. 00    7. 521 No_date   29: 22    27. 01   . 363    .000
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08603>          [CN= 66.0: N= 3.00: Tp= 1.24]
08604>          [laREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
08605>          [InterEventTime= 12.00]
08606> #
08607> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08608> # of 1.80
08609> R0025:C00011-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08610>       CONTINUOUS NASHYD        1.0 01: NN_CK        1917.00    10.351 No_date    34:27    27.01 .363      .000
08611>          [CN= 66.0: N= 3.00: Tp= 5.29]
08612>          [laREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
08613>          [InterEventTime= 12.00]
08614> #
08615> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08616> # of 1.52
08617> R0025:C00012-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08618>       CONTINUOUS NASHYD        1.0 01: SW_10        5666.00    27.457 No_date    37:54    31.50 .423      .000
08619>          [CN= 72.0: N= 3.00: Tp= 8.00]
08620>          [laREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
08621>          [InterEventTime= 12.00]
08622> #
08623> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08624> # of 1.75
08625> R0025:C00013-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08626>       CONTINUOUS NASHYD        1.0 01: KG_CK        8376.00    26.276 No_date    39:59    27.01 .363      .000
08627>          [CN= 66.0: N= 3.00: Tp=11.66]
08628>          [laREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
08629>          [InterEventTime= 12.00]
08630> #
08631> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08632> # of 1.68
08633> R0025:C00014-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08634>       CONTINUOUS NASHYD        1.0 01: SW_9         1132.00    11.752 No_date    30:54    30.18 .406      .000
08635>          [CN= 70.0: N= 3.00: Tp= 2.51]
08636>          [laREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
08637>          [InterEventTime= 12.00]
08638> #
08639> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08640> # of 1.82
08641> R0025:C00015-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08642>       CONTINUOUS NASHYD        1.0 01: NC_CK        4464.00    13.075 No_date    39:59    24.61 .331      .000
08643>          [CN= 62.0: N= 3.00: Tp=11.32]
08644>          [laREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
08645>          [InterEventTime= 12.00]
08646> #
08647> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08648> # of 1.80
08649> R0025:C00016-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08650>       CONTINUOUS NASHYD        1.0 01: SW_8         131.00     2.266 No_date    28:57    25.20 .339      .000
08651>          [CN= 63.0: N= 3.00: Tp=  .90]
08652>          [laREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
08653>          [InterEventTime= 12.00]
08654> #
08655> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08656> # of 1.65
08657> R0025:C00017-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08658>       CONTINUOUS NASHYD        1.0 01: HB_DR        3854.00    15.333 No_date    38:34    27.01 .363      .000
08659>          [CN= 66.0: N= 3.00: Tp= 8.42]
08660>          [laREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
08661>          [InterEventTime= 12.00]
08662> #
08663> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08664> # of 1.82
08665> R0025:C00018-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08666>       CONTINUOUS NASHYD        1.0 01: SW_7         3197.00    11.663 No_date    36:24    21.75 .292      .000
08667>          [CN= 57.0: N= 3.00: Tp= 6.65]
08668>          [laREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
08669>          [InterEventTime= 12.00]
08670> #
08671> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08672> # of 1.75
08673> R0025:C00019-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08674>       CONTINUOUS NASHYD        1.0 01: SW_6         165.00     1.076 No_date    33:03    27.63 .371      .000
08675>          [CN= 67.0: N= 3.00: Tp= 4.18]
08676>          [laREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
08677>          [InterEventTime= 12.00]
08678> #
08679> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08680> # of 1.67
08681> R0025:C00020-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08682>       CONTINUOUS NASHYD        1.0 01: VG_DR        1332.00     7.882 No_date    35:14    31.50 .423      .000
08683>          [CN= 72.0: N= 3.00: Tp= 5.95]
08684>          [laREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
08685>          [InterEventTime= 12.00]
08686> R0025:C00021-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08687>       CONTINUOUS NASHYD        1.0 01: SW_5         224.00     6.882 No_date    28:45    35.66 .479      .000
08688>          [CN= 77.0: N= 3.00: Tp=  .75]
08689>          [laREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
08690>          [InterEventTime= 12.00]
08691> #
08692> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08693> # of 1.20
08694> R0025:C00022-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08695>       CONTINUOUS NASHYD        1.0 01: FL_CK        4945.00    37.664 No_date    33:18    32.85 .442      .000
08696>          [CN= 74.0: N= 3.00: Tp= 4.45]
08697>          [laREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
08698>          [InterEventTime= 12.00]
08699> R0025:C00023-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08700>       CONTINUOUS NASHYD        1.0 01: SW_SA2         20.00     .798 No_date    28:35    39.36 .529      .000
08701>          [CN= 81.0: N= 3.00: Tp=  .62]
08702>          [laREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
08703>          [InterEventTime= 12.00]
08704> #
08705> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
08706> # of 1.61
08707> R0025:C00024-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08708>       CONTINUOUS NASHYD        1.0 01: SW_5A1       1412.00     7.480 No_date    37:50    34.24 .460      .000
08709>          [CN= 75.0: N= 3.00: Tp= 8.00]
08710>          [laREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
08711>          [InterEventTime= 12.00]
08712> R0025:C00025-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08713>       CONTINUOUS NASHYD        1.0 01: SW_4         585.00    10.942 No_date    29:56    39.36 .529      .000
08714>          [CN= 81.0: N= 3.00: Tp= 1.75]
08715>          [laREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
08716>          [InterEventTime= 12.00]
08717> R0025:C00026-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08718>       CONTINUOUS NASHYD        1.0 01: LM_CK        1021.00    14.476 No_date    30:46    38.60 .519      .000
08719>          [CN= 80.0: N= 3.00: Tp= 2.46]
08720>          [laREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
08721>          [InterEventTime= 12.00]
08722> R0025:C00027-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08723>       CONTINUOUS NASHYD        1.0 01: SW_2         177.00     5.438 No_date    28:45    35.66 .479      .000
08724>          [CN= 77.0: N= 3.00: Tp=  .75]
08725>          [laREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
08726>          [InterEventTime= 12.00]
08727> R0025:C00028-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08728>       CONTINUOUS NASHYD        1.0 01: SM_DR        1122.00    13.229 No_date    31:45    39.36 .529      .000
08729>          [CN= 81.0: N= 3.00: Tp= 3.25]
08730>          [laREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
08731>          [InterEventTime= 12.00]
08732> R0025:C00029-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08733>       CONTINUOUS NASHYD        1.0 01: MD_DR        2737.00    29.508 No_date    31:30    34.94 .470      .000
08734>          [CN= 76.0: N= 3.00: Tp= 3.03]
08735>          [laREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
08736>          [InterEventTime= 12.00]
08737> #
08738> # Routing hydrographs
08739> #
08740> # Starting with the addition of Jock River Headwater and Subwatershed 13
08741> #
08742> R0025:C00030-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08743>       ADD HYD                  1.0 02: JR_HW        3680.00    15.500 No_date    36:56    25.80 n/a       .000
08744>                             +  1.0 02: SW_13         971.00     5.778 No_date    32:34    24.02 n/a       .000
08745>                            SUM=  1.0 01: S_NI3      4651.00    19.777 No_date    35:26    25.42 n/a       .000
08746> #
08747> # Sum of hydrographs from Node 13 routed to Node 13A
08748> # (Approximated cross-section - see cross-section 258)
08749> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
08750> #
08751> R0025:C00031-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08752>       ROUTE CHANNEL    -->     1.0 02: S_NI3        4651.00    19.777 No_date    35:26    25.42 n/a       .000
08753>          [RDT= 1.00] out<-     1.0 01: NI3A         4651.00    15.935 No_date    39:17    25.42 n/a       .000
08754>          [L/S/n= 9074./ .022/ .040]
08755>          [Vmx= .548: Dmx= 3.659]
08756> #
08757> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
08758> #
08759> R0025:C00032-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08760>       ADD HYD                  1.0 02: NI3A         4651.00    15.935 No_date    39:17    25.42 n/a       .000
08761>                             +  1.0 02: JR_GWM       3074.00     7.521 No_date    39:59    20.65 n/a       .000
08762>                            SUM=  1.0 01: SNI3A      7725.00    23.402 No_date    39:59    23.52 n/a       .000
08763> #
08764> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
08765> #
08766> R0025:C00033-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08767>       ROUTE RESERVOIR  -->     1.0 02: SNI3A        7725.00    23.402 No_date    39:59    23.52 n/a       .000
08768>                          out <=  1.0 01: RES_GM       7725.00     3.678 No_date    60:27    23.52 n/a       .000
08769>          [MxStOlked=.1192E+03  m3]
08770> #
08771> R0025:C00034-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08772>       SAVE HYD                 1.0 01: RES_GM       7725.00     3.678 No_date    60:27    23.52 n/a       .000
08773>          fname: H_RESGM
08774>          remark: Outflow from Res GM
08775> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
08776> # (Approximated cross-section - see cross-section 258)
08777> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
08778> R0025:C00035-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08779>       ROUTE CHANNEL    -->     1.0 02: RES_GM       7725.00     3.678 No_date    60:27    23.52 n/a       .000
08780>          [RDT= 1.00] out<-     1.0 01: NI2          7725.00     3.675 No_date    63:05    23.52 n/a       .000
08781>          [L/S/n= 5926./ .076/ .040]
08782>          [Vmx= .552: Dmx= 1.524]
08783> #
08784> # Addition of Subwatershed Jock River at Ashton to Node 12
08785> #
08786> R0025:C00036-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08787>       ADD HYD                  1.0 02: NI2          7725.00     3.675 No_date    63:05    23.52 n/a       .000
08788>                             +  1.0 02: JR_ASH       1781.00    14.166 No_date    32:40    31.50 n/a       .000
08789>                            SUM=  1.0 01: S_NI2      9506.00    16.182 No_date    32:43    25.02 n/a       .000
08790> R0025:C00037-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08791>       SAVE HYD                 1.0 01: S_NI2        9506.00    16.182 No_date    32:43    25.02 n/a       .000
08792>          fname: H_SNI2
08793>          remark: flow at S_NI2 near Ashton
08794> #
08795> # Sum of hydrographs from Node 12 routed to Node 11
08796> # (Approximated cross-section - see cross-section 258)
08797> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
08798> #
08799> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
08800> #
08801> R0025:C00038-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08802>       ROUTE CHANNEL    -->     1.0 02: S_NI2        9506.00    16.182 No_date    32:43    25.02 n/a       .000
08803>          [RDT= 1.00] out<-     1.0 01: Dum1         9506.00    16.007 No_date    33:02    25.02 n/a       .000
08804>          [L/S/n=  972./ .054/ .040]
08805>          [Vmx= .721: Dmx= 2.847]
08806> #
08807> # Addition of Subwatershed 11 and No Name Creek to Node 11
08808> #
08809> R0025:C00039-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08810>       ADD HYD                  1.0 02: Dum1         9506.00    16.007 No_date    33:02    25.02 n/a       .000
08811>                             +  1.0 02: SW_11         500.00     7.521 No_date    29:22    27.01 n/a       .000
08812>                             +  1.0 02: NN_CK        1917.00    10.351 No_date    34:27    27.01 n/a       .000
08813>                            SUM=  1.0 01: S_NI1      11923.00    27.908 No_date    33:04    25.42 n/a       .000
08814> #
08815> # Sum of hydrographs from Node 11 routed to Node 10
08816> # Section 1
08817> #
08818> R0025:C00040-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08819>       ROUTE CHANNEL    -->     1.0 02: S_NI1        11923.00    27.908 No_date    33:04    25.42 n/a       .000
08820>          [RDT= 1.00] out<-     1.0 01: NI0          11923.00    18.039 No_date    40:01    25.42 n/a       .000
08821>          [L/S/n=14028./ .157/ .040]
08822>          [Vmx= .464: Dmx= 1.329]
08823> #
08824> # Addition of Subwatershed 10 to Node 10
08825> #
08826> R0025:C00041-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08827>       ADD HYD                  1.0 02: NI0          11923.00    18.039 No_date    40:01    25.42 n/a       .000
08828>                             +  1.0 02: SW_10        5666.00    27.457 No_date    37:54    31.50 n/a       .000
08829>                            SUM=  1.0 01: S_NI0      17589.00    45.026 No_date    38:35    27.38 n/a       .000
08830> R0025:C00042-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08831>       SAVE HYD                 1.0 01: S_NI0        17589.00    45.026 No_date    38:35    27.38 n/a       .000
08832>          fname: H_SNI0
08833>          remark: flow at S_NI0: NI0 + SW_10
08834> # Addition of Kings Creek to S_NI0
08835> #
08836> R0025:C00043-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08837>       ADD HYD                  1.0 02: S_NI0        17589.00    45.026 No_date    38:35    27.38 n/a       .000
08838>                             +  1.0 02: KG_CK         8376.00    26.276 No_date    39:59    27.01 n/a       .000
08839>                            SUM=  1.0 01: S_NI0A     25965.00    70.812 No_date    39:59    27.26 n/a       .000
08840> #
08841> # Sum of hydrographs from Node 10 routed to Node 9
08842> # Section 2
08843> #
08844> R0025:C00044-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08845>       ROUTE CHANNEL    -->     1.0 02: S_NI0A       25965.00    70.812 No_date    39:59    27.26 n/a       .000
08846>          [RDT= 1.00] out<-     1.0 01: N9           25965.00    69.032 No_date    39:59    27.26 n/a       .000
08847>          [L/S/n= 3982./ .075/ .040]
08848>          [Vmx= .718: Dmx= 1.889]
08849> #
08850> # Addition of Subwatershed 9 and Nichols Creek to Node 9
08851> #
08852> R0025:C00045-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08853>       ADD HYD                  1.0 02: N9           25965.00    69.032 No_date    39:59    27.26 n/a       .000
08854>                             +  1.0 02: SW_9         1132.00    11.752 No_date    30:54    30.18 n/a       .000
08855>                             +  1.0 02: NC_CK        4464.00    13.075 No_date    39:59    24.61 n/a       .000
08856>                            SUM=  1.0 01: S_N9       31561.00    84.684 No_date    39:59    26.99 n/a       .000
08857> #
08858> # Sum of hydrographs from Node 9 routed to Node 8
08859> # Section 3
08860> #
08861> R0025:C00046-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08862>       ROUTE CHANNEL    -->     1.0 02: S_N9         31561.00    84.684 No_date    39:59    26.99 n/a       .000
08863>          [RDT= 1.00] out<-     1.0 01: N8           31561.00    79.245 No_date    39:59    26.99 n/a       .000
08864>          [L/S/n= 2269./ .088/ .045]
08865>          [Vmx= .363: Dmx= 1.743]
08866> #
08867> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
08868> #
08869> R0025:C00047-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08870>       ADD HYD                  1.0 02: N8           31561.00    79.245 No_date    39:59    26.99 n/a       .000
08871>                             +  1.0 02: SW_8         131.00     2.266 No_date    28:57    25.20 n/a       .000
08872>                             +  1.0 02: HB_DR        3854.00    15.333 No_date    38:34    27.01 n/a       .000
08873>                            SUM=  1.0 01: S_N8       35546.00    94.597 No_date    39:59    26.99 n/a       .000
08874> #
08875> # Sum of hydrographs from Node 8 routed to Node 7
08876> # Section 4
08877> #
08878> R0025:C00048-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08879>       ROUTE CHANNEL    -->     1.0 02: S_N8         35546.00    94.597 No_date    39:59    26.99 n/a       .000
08880>          [RDT= 1.00] out<-     1.0 01: N7           35546.00    80.337 No_date    45:08    26.98 n/a       .000
08881>          [L/S/n= 3750./ .053/ .070]
08882>          [Vmx= .226: Dmx= 2.161]
08883> #
08884> # Addition of Subwatershed 7 to Node 7
08885> #
08886> R0025:C00049-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08887>       ADD HYD                  1.0 02: N7           35546.00    80.337 No_date    45:08    26.98 n/a       .000
08888>                             +  1.0 02: SW_7         3197.00    11.663 No_date    36:24    21.75 n/a       .000
08889>                            SUM=  1.0 01: S_N7       38743.00    86.331 No_date    44:08    26.55 n/a       .000
08890> R0025:C00050-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08891>       SAVE HYD                 1.0 01: S_N7         38743.00    86.331 No_date    44:08    26.55 n/a       .000
08892>          fname: H_SN7
08893>          remark: flow at S_N7:  N7 + SW_7
08894> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
08895> # Storage area and volumes were estimated from available topo maps.
08896> # Release rate from fen was assumed to be controlled by the downstream
08897> # river cross-section for summer conditions.  It is was assumed that for up to
08898> # 0.75 m of water, the main channel of the river provided the storage.  Above
08899> # this depth, the wetland starts to signigicantly store water.
08900> #
08901> R0025:C00051-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08902>       ROUTE RESERVOIR  -->     1.0 02: S_N7         38743.00    86.331 No_date    44:08    26.55 n/a       .000
08903>                          out <=  1.0 01: RES_RF       38743.00    42.032 No_date    60:05    26.55 n/a       .000
08904>          [MxStOlked=.3671E+03  m3]
08905> R0025:C00052-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08906>       SAVE HYD                 1.0 01: RES_RF       38743.00    42.032 No_date    60:05    26.55 n/a       .000
08907>          fname: H_ResRF
08908>          remark: outflow of Richmond Fen
08909> #
08910> # Sum of hydrographs from Node 7 routed to Node 6
08911> # Section 5
08912> #
08913> R0025:C00053-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08914>       ROUTE CHANNEL    -->     1.0 02: RES_RF       38743.00    42.032 No_date    60:05    26.55 n/a       .000
08915>          [RDT= 1.00] out<-     1.0 01: N6           38743.00    41.826 No_date    61:26    26.55 n/a       .000
08916>          [L/S/n= 3056./ .082/ .025]
08917>          [Vmx= .514: Dmx= 1.120]
08918> #
08919> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
08920> #
08921> R0025:C00054-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08922>       ADD HYD                  1.0 02: N6           38743.00    41.826 No_date    61:26    26.55 n/a       .000
08923>                             +  1.0 02: SW_6         165.00     1.076 No_date    33:03    27.63 n/a       .000
08924>                             +  1.0 02: VG_DR        1332.00     7.882 No_date    35:14    31.50 n/a       .000
08925>                            SUM=  1.0 01: S_N6       40240.01    41.832 No_date    61:20    26.72 n/a       .000
08926> #
08927> # Sum of hydrographs from Node 6 routed to Node 5
08928> # Section 6
08929> #
08930> R0025:C00055-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08931>       ROUTE CHANNEL    -->     1.0 02: S_N6         40240.01    41.832 No_date    61:20    26.72 n/a       .000
08932>          [RDT= 1.00] out<-     1.0 01: N5           40240.01    41.717 No_date    62:14    26.72 n/a       .000
08933>          [L/S/n= 1852./ .054/ .035]
08934>          [Vmx= .444: Dmx= 1.222]
08935> #
08936> # Addition of Subwatershed 5 and Flowing Creek to Node 5
08937> #
08938> R0025:C00056-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08939>       ADD HYD                  1.0 02: N5           40240.01    41.717 No_date    62:14    26.72 n/a       .000
08940>                             +  1.0 02: SW_5         224.00     6.882 No_date    28:45    35.66 n/a       .000
08941>                             +  1.0 02: FL_CK        4945.00    37.664 No_date    33:18    32.85 n/a       .000
08942>                            SUM=  1.0 01: S_N5       45409.01    62.634 No_date    34:27    27.43 n/a       .000
08943> #
08944> # Sum of hydrographs from Node 5 routed to Node 5A
08945> # Section 7
08946> #
08947> R0025:C00057-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08948>       ROUTE CHANNEL    -->     1.0 02: S_N5         45409.01    62.634 No_date    34:27    27.43 n/a       .000
08949>          [RDT= 1.00] out<-     1.0 01: N5A          45409.01    62.487 No_date    34:43    27.43 n/a       .000
08950>          [L/S/n=  556./ .090/ .040]
08951>          [Vmx= .511: Dmx= 1.222]
08952> #
08953> # Addition of Subwatershed 5AI and Subwatershed 5A2 to Node 5A
08954> #
08955> R0025:C00058-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08956>       ADD HYD                  1.0 02: N5A          45409.01    62.487 No_date    34:43    27.43 n/a       .000
08957>                             +  1.0 02: SW_5A2         20.00     .798 No_date    28:35    39.36 n/a       .000
08958>                             +  1.0 02: SW_5A1       1412.00     7.480 No_date    37:50    34.24 n/a       .000
08959>                            SUM=  1.0 01: S_N5A      46841.01    69.334 No_date    35:01    27.64 n/a       .000
08960> #
08961> # Sum of hydrographs from Node 5A routed to Node 4
08962> # Section 8
08963> #
08964> R0025:C00059-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08965>       ROUTE CHANNEL    -->     1.0 02: S_N5A        46841.01    69.334 No_date    35:01    27.64 n/a       .000
08966>          [RDT= 1.00] out<-     1.0 01: N4           46841.01    66.496 No_date    36:27    27.64 n/a       .000
08967>          [L/S/n= 4630./ .043/ .035]
08968>          [Vmx= .840: Dmx= 3.530]
08969> #
08970> # Addition of Subwatershed 4 and Leamy Creek to Node 4
08971> #
08972> R0025:C00060-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
08973>       ADD HYD                  1.0 02: N4           46841.01    66.496 No_date    36:27    27.64 n/a       .000
08974>                             +  1.0 02: SW_4         585.00    10.942 No_date    29:56    39.36 n/a       .000
08975>                             +  1.0 02: LM_CK        1021.00    14.476 No_date    30:46    38.60 n/a       .000
08976>                            SUM=  1.0 01: S_N4       48447.00    73.819 No_date    35:41    28.02 n/a       .000
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08977> R0025: C00061-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
08978>      SAVE HYD                1. 0 01: S_N4          48447. 00    73. 819 No_date    35: 41   28. 02  n/ a      . 000
08979>        fname: S_N4. 0025
08980>        remark: flow at S_N4
08981> #
08982> # Sum of hydrographs from Node 4 routed to Node 2
08983> # Section 9
08984> #
08985> R0025: C00062-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
08986>      ROUTE CHANNEL     ->    1. 0 02: S_N4          48447. 00    73. 819 No_date    35: 41   28. 02  n/ a      . 000
08987>        [ RDT= 1. 00] out <-      1. 0 01: N2          48447. 00    73. 485 No_date    35: 42   28. 02  n/ a      . 000
08988>                  +      1. 0 02: MO_DR          2737. 00    29. 508 No_date    31: 30   34. 94  n/ a      . 000
08989>        [ Vmx= . 874: Dmx= 3. 570]
08990> #
08991> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
08992> #
08993> R0025: C00063-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
08994>      ADD HYD                 1. 0 02: N2            48447. 00    73. 485 No_date    35: 42   28. 02  n/ a      . 000
08995>                  +      1. 0 02: SW_2            177. 00     5. 438 No_date    28: 45   35. 66  n/ a      . 000
08996>                  +      1. 0 02: SM_DR          1122. 00    13. 229 No_date    31: 45   39. 36  n/ a      . 000
08997>                  +      1. 0 02: MO_DR          2737. 00    29. 508 No_date    31: 30   34. 94  n/ a      . 000
08998>                SUM=     1. 0 01: S_N2          52483. 00   106. 109 No_date    33: 07   28. 64  n/ a      . 000
08999> R0025: C00064-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09000>      SAVE HYD                1. 0 01: S_N2          52483. 00   106. 109 No_date    33: 07   28. 64  n/ a      . 000
09001>        fname: H_SN2
09002>        remark: flow at S_N2 Jock River Gauge at Moodie Dr.
09003> #
09004> # Sum of hydrographs from Node 2 routed to Node 1
09005> # Section 10
09006> #
09007> #*************************************************************************
09008> #
09009> # Hydrograph from Node 2 routed to Node 416
09010> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
09011> #
09012> R0025: C00065-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09013>      ROUTE CHANNEL     ->    1. 0 02: S_N2          52483. 00   106. 109 No_date    33: 07   28. 64  n/ a      . 000
09014>        [ RDT= 1. 00] out <-      1. 0 01: N_416         52483. 00   103. 234 No_date    34: 03   28. 64  n/ a      . 000
09015>        [ L/ S/ n= 2327. / . 050/ . 055]
09016>        [ Vmx= . 754: Dmx= 3. 305]
09017> #*************************************************************************
09018> #    Catchment SW1a
09019> #  - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
09020> #  - Undeveloped agricultural land
09021> #*************************************************************************
09022> R0025: C00066-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09023>      CONTI NUOUS NASHYD      1. 0 01: SW_1a         536. 42     5. 154 No_date    31: 16   30. 13  . 405      . 000
09024>        [ CN= 72. 0: N= 3. 00: Tp= 2. 79]
09025>        [ IaREC= 4. 00: SM N= 39. 75: SMX= 264. 99:  SK= . 010]
09026>        [ InterEvent Time= 12. 00]
09027> R0025: C00067-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09028>      CONTI NUOUS STANDHYD    1. 0 01: S-1- Okeefe    44. 93     6. 507 No_date    28: 03   57. 38  . 771      . 000
09029>        [ XI M= 6. 65: TI MP= 6. 65]
09030>        [ LOSS= 2. : CN= 75. 0]
09031>        [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= . 250: SCP=    . 0]
09032>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI = 547. : MNI = . 013: SCI =    . 0]
09033>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09034>        [ SM N= 33. 81:  SMX= 225. 43:  SK= . 010]
09035> R0025: C00068-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09036>      COMPUTE DUALHYD         1. 0 01: S-1- Okeefe    44. 93     6. 507 No_date    28: 03   57. 38  n/ a      . 000
09037>        Major System    /      1. 0 02: S-1- OkM       . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09038>        Minor System    \      1. 0 03: S-1- OkMN      44. 93     4. 591 No_date    27: 56   57. 68  n/ a      . 000
09039>        [ MJSysSto= 1. 1037E+04,  MnSt OrVol= . 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09040> R0025: C00069-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09041>      ADD HYD                 1. 0 02: S-1- OkM       . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09042>                  +      1. 0 02: S-1- OkMN      44. 93     4. 591 No_date    27: 56   57. 68  n/ a      . 000
09043>                SUM=     1. 0 01: S-1- OkS       44. 93     4. 591 No_date    27: 56   57. 68  n/ a      . 000
09044> R0025: C00070-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09045>      ROUTE RESERVOI R ->     1. 0 02: S-1- OkS       44. 93     4. 591 No_date    27: 56   57. 68  n/ a      . 000
09046>                  out <=     1. 0 01: S-1- OkSR      44. 93      . 467 No_date    29: 26   57. 68  n/ a      . 000
09047>                overflow <=     1. 0 03: S-1- OkSovf     . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09048>        [ MnSt oSked=. 1559E+01  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09049> R0025: C00071-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09050>      ADD HYD                 1. 0 02: N_416         52483. 00   103. 234 No_date    34: 03   28. 64  n/ a      . 000
09051>                  +      1. 0 02: SW_1a          536. 42     5. 154 No_date    31: 16   30. 13  n/ a      . 000
09052>                  +      1. 0 02: S-1- OkSR      44. 93      . 467 No_date    29: 26   57. 68  n/ a      . 000
09053>                  +      1. 0 02: S-1- OkSovf     . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09054>                SUM=     1. 0 01: SN_416        53064. 36   107. 436 No_date    33: 26   28. 68  n/ a      . 000
09055> R0025: C00072-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09056>      SAVE HYD                1. 0 01: SN_416        53064. 36   107. 436 No_date    33: 26   28. 68  n/ a      . 000
09057>        fname: SN_416. 0025
09058>        remark: Total Flows at Highway 416 before Station 7245
09059> #
09060> # Hydrograph from Node 416 routed to Node at Okeefe drain
09061> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
09062> #
09063> R0025: C00073-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09064>      ROUTE CHANNEL     ->    1. 0 02: SN_416        53064. 36   107. 436 No_date    33: 26   28. 68  n/ a      . 000
09065>        [ RDT= 1. 00] out <-      1. 0 01: N_OK          53064. 36   107. 360 No_date    33: 27   28. 68  n/ a      . 000
09066>        [ L/ S/ n= . 497. / . 302/ . 055]
09067>        [ Vmx= 1. 569: Dmx= 2. 814]
09068> #*************************************************************************
09069> #    Catchment OKEEFFE
09070> #  - To O'Keefe drain (north of the Jock)
09071> #  - Developed with assumed 43% imp.
09072> #  - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
09073> #  - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
09074> #*************************************************************************
09075> R0025: C00074-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09076>      CONTI NUOUS NASHYD      1. 0 01: O 1            63. 72      . 937 No_date    28: 58   22. 21  n/ a      . 000
09077>        [ CN= 61. 0: N= 3. 00: Tp=  . 90]
09078>        [ IaREC= 4. 00: SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
09079>        [ InterEvent Time= 12. 00]
09080> R0025: C00075-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09081>      ROUTE CHANNEL     ->    1. 0 02: O 1            63. 72      . 937 No_date    28: 58   22. 21  n/ a      . 000
09082>        [ RDT= 1. 00] out <-      1. 0 01: O 1R           63. 72      . 877 No_date    29: 15   22. 21  n/ a      . 000
09083>        [ L/ S/ n=  960. / . 630/ . 043]
09084>        [ Vmx=  . 829: Dmx= . 398]
09085> R0025: C00076-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09086>      CONTI NUOUS NASHYD      1. 0 01: O 2            28. 61      . 330 No_date    29: 13   20. 55  . 276      . 000
09087>        [ CN= 57. 0: N= 3. 00: Tp= 1. 10]
09088>        [ IaREC= 4. 00: SM N= 76. 32:  SMX= 508. 81:  SK= . 010]
09089>        [ InterEvent Time= 12. 00]
09090> R0025: C00077-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09091>      CONTI NUOUS NASHYD      1. 0 01: O 4            46. 94      . 426 No_date    29: 00   15. 62  . 210      . 000
09092>        [ CN= 49. 0: N= 3. 00: Tp=  . 90]
09093>        [ IaREC= 4. 00: SM N= 104. 59:  SMX= 697. 25:  SK= . 010]
09094>        [ InterEvent Time= 12. 00]
09095> R0025: C00078-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09096>      ADD HYD                 1. 0 02: O 1R           63. 72      . 877 No_date    29: 15   22. 21  n/ a      . 000
09097>                  +      1. 0 02: O 2            28. 61      . 330 No_date    29: 13   20. 55  n/ a      . 000
09098>                  +      1. 0 02: O 4            46. 94      . 426 No_date    29: 00   15. 62  n/ a      . 000
09099>                SUM=     1. 0 01: OKF- N        139. 27     1. 623 No_date    29: 11   19. 65  n/ a      . 000
09100> R0025: C00079-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09101>      ROUTE CHANNEL     ->    1. 0 02: OKF- N        139. 27     1. 623 No_date    29: 11   19. 65  n/ a      . 000
09102>        [ RDT= 1. 00] out <-      1. 0 01: OKF- NR        139. 27     1. 620 No_date    29: 14   19. 65  n/ a      . 000
09103>        [ L/ S/ n=  210. / . 810/ . 043]
09104>        [ Vmx=  . 998: Dmx=  . 685]
09105> R0025: C00080-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09106>      CONTI NUOUS NASHYD      1. 0 01: O 6            16. 46      . 143 No_date    28: 45   13. 49  . 181      . 000
09107>        [ CN= 43. 0: N= 3. 00: Tp=  . 70]
09108>        [ IaREC= 4. 00: SM N= 134. 47:  SMX= 896. 47:  SK= . 010]
09109>        [ InterEvent Time= 12. 00]
09110> R0025: C00081-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09111>      CONTI NUOUS STANDHYD    1. 0 01: O 3            39. 67      . 1. 013 No_date    28: 23   24. 45  . 329      . 000
09112>        [ XI M= 6. 15: TI MP= 6. 30]
09113>        [ LOSS= 2: CN= 50. 0]
09114>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
09115>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 32: LGI = 1880. : MNI = . 013: SCI =    . 0]
09116>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09117>        [ SM N= 99. 77:  SMX= 665. 12:  SK= . 010]
09118> R0025: C00082-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09119>      CONTI NUOUS STANDHYD    1. 0 01: O 5            60. 63     2. 500 No_date    28: 10   28. 05  . 377      . 000
09120>        [ XI M= 6. 13: TI MP= 6. 26]
09121>        [ LOSS= 2: CN= 61. 0]
09122>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 38: LGP= 550. : MNP= . 035: SCP=    . 0]
09123>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 38: LGI =1450. : MNI = . 013: SCI =    . 0]
09124>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09125>        [ SM N= 64. 50:  SMX= 430. 01:  SK= . 010]
09126> R0025: C00083-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09127>      ADD HYD                 1. 0 02: OKF- NR        139. 27     1. 620 No_date    29: 14   19. 65  n/ a      . 000
09128>                  +      1. 0 02: O 3            39. 67      . 1. 013 No_date    28: 23   24. 45  n/ a      . 000
09129>                  +      1. 0 02: O 5            60. 63     2. 500 No_date    28: 10   28. 05  n/ a      . 000
09130>                  +      1. 0 02: O 6            16. 46      . 143 No_date    28: 45   13. 49  n/ a      . 000
09131>                SUM=     1. 0 01: PT1           256. 03     4. 071 No_date    28: 22   21. 98  n/ a      . 000
09132> R0025: C00084-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09133>      CONTI NUOUS NASHYD      1. 0 01: O 7             5. 28      . 078 No_date    28: 37   18. 08  . 243      . 000
09134>        [ CN= 54. 0: N= 3. 00: Tp=  . 60]
09135>        [ IaREC= 4. 00: SM N= 87. 01:  SMX= 580. 07:  SK= . 010]
09136>        [ InterEvent Time= 12. 00]
09137> R0025: C00085-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09138>      ADD HYD                 1. 0 02: PT1           256. 03     4. 071 No_date    28: 22   21. 98  n/ a      . 000
09139>                  +      1. 0 02: O 7             5. 28      . 078 No_date    28: 37   18. 08  n/ a      . 000
09140>                SUM=     1. 0 01: FF            261. 31     4. 141 No_date    28: 22   21. 91  n/ a      . 000
09141> R0025: C00086-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09142>      ROUTE CHANNEL     ->    1. 0 02: FF            261. 31     4. 141 No_date    28: 22   21. 91  n/ a      . 000
09143>        [ RDT= 1. 00] out <-      1. 0 01: DRAI N1        261. 31     4. 014 No_date    28: 28   21. 91  n/ a      . 000
09144>        [ L/ S/ n=  302. / 1. 000/ . 043]
09145>        [ Vmx=  . 793: Dmx=  . 719]
09146> R0025: C00087-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09147>      CONTI NUOUS NASHYD      1. 0 01: DI              1. 17      . 078 No_date    28: 12   37. 38  . 502      . 000
09148>        [ CN= 84. 0: N= 3. 00: Tp=  . 28]
09149>        [ IaREC= 4. 00: SM N= 21. 09:  SMX= 140. 62:  SK= . 010]
09150>        [ InterEvent Time= 12. 00]
09151> R0025: C00088-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09152>      CONTI NUOUS STANDHYD    1. 0 01: AI             2. 50      . 464 No_date    28: 01   58. 43  . 785      . 000
09153>        [ XI M= 6. 68: TI MP= 6. 85]
09154>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09155>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09156>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI = 224. : MNI = . 013: SCI =    . 0]
09157>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09158> R0025: C00089-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09159>      ROUTE RESERVOI R ->     1. 0 02: AI             2. 50      . 464 No_date    28: 01   58. 43  n/ a      . 000
09160>                  out <=     1. 0 01: AI- STR        2. 50      . 117 No_date    28: 22   58. 43  n/ a      . 000
09161>                overflow <=     1. 0 03: AI- OVF         . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09162>        [ MnSt oSked=. 6660E- 01  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09163> R0025: C00090-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09164>      CONTI NUOUS STANDHYD    1. 0 01: ST- 2           . 59      . 091 No_date    28: 00   45. 54  . 612      . 000
09165>        [ XI M= 6. 46: TI MP= 6. 57]
09166>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09167>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09168>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  109. : MNI = . 013: SCI =    . 0]
09169>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09170> R0025: C00091-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09171>      ROUTE RESERVOI R ->     1. 0 02: ST- 2           . 59      . 091 No_date    28: 00   45. 54  n/ a      . 000
09172>                  out <=     1. 0 01: ST2STR          . 59      . 052 No_date    28: 07   45. 54  n/ a      . 000
09173>                overflow <=     1. 0 03: ST2OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09174>        [ MnSt oSked=. 2899E- 02  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09175> R0025: C00092-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09176>      CONTI NUOUS NASHYD      1. 0 01: O- 8           60. 55     1. 147 No_date    29: 04   28. 63  . 385      . 000
09177>        [ CN= 69. 0: N= 3. 00: Tp= 1. 00]
09178>        [ IaREC= 4. 00: SM N= 44. 82:  SMX= 298. 82:  SK= . 010]
09179>        [ InterEvent Time= 12. 00]
09180> R0025: C00093-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09181>      ROUTE PI PE       ->    1. 0 02: O- 8           60. 55     1. 147 No_date    29: 04   28. 63  n/ a      . 000
09182>        [ RDT= 1. 00] out <-      1. 0 01: OKPI PE        60. 55     1. 141 No_date    29: 08   28. 63  n/ a      . 000
09183>        [ L/ S/ n=  335. / . 100/ . 013]
09184>        [ Vmx= 1. 178: Dmx=  . 510]
09185>        [ HGT H= 1. 20: WDTH= 1. 80]
09186> R0025: C00094-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09187>      ADD HYD                 1. 0 02: DRAI N1        261. 31     4. 014 No_date    28: 28   21. 91  n/ a      . 000
09188>                  +      1. 0 02: DI              1. 17      . 078 No_date    28: 12   37. 38  n/ a      . 000
09189>                  +      1. 0 02: AI- STR         2. 50      . 117 No_date    28: 22   58. 43  n/ a      . 000
09190>                  +      1. 0 02: AI- OVF         . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09191>                  +      1. 0 02: ST2STR          . 59      . 052 No_date    28: 07   45. 54  n/ a      . 000
09192>                  +      1. 0 02: ST2OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09193>                  +      1. 0 02: OKPI PE        60. 55     1. 141 No_date    29: 08   28. 63  n/ a      . 000
09194>                SUM=     1. 0 01: ST2- 1N        326. 12     5. 017 No_date    28: 36   23. 53  n/ a      . 000
09195> R0025: C00095-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09196>      CONTI NUOUS STANDHYD    1. 0 01: AI7             3. 51      . 635 No_date    28: 01   58. 43  . 785      . 000
09197>        [ XI M= 6. 68: TI MP= 6. 85]
09198>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09199>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09200>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  265. : MNI = . 013: SCI =    . 0]
09201>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09202> R0025: C00096-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09203>      ROUTE RESERVOI R ->     1. 0 02: A7              3. 51      . 635 No_date    28: 01   58. 43  n/ a      . 000
09204>                  out <=     1. 0 01: A7- STR         3. 51      . 164 No_date    28: 23   58. 43  n/ a      . 000
09205>                overflow <=     1. 0 03: A7- OVF         . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09206>        [ MnSt oSked=. 9358E- 01  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09207> R0025: C00097-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09208>      CONTI NUOUS STANDHYD    1. 0 01: ST- 3           . 71      . 108 No_date    28: 00   45. 54  . 612      . 000
09209>        [ XI M= 6. 46: TI MP= 6. 57]
09210>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09211>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09212>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  119. : MNI = . 013: SCI =    . 0]
09213>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09214> R0025: C00098-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09215>      ROUTE RESERVOI R ->     1. 0 02: ST- 3           . 71      . 108 No_date    28: 00   45. 54  n/ a      . 000
09216>                  out <=     1. 0 01: ST3STR          . 71      . 063 No_date    28: 08   45. 54  n/ a      . 000
09217>                overflow <=     1. 0 03: ST3OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09218>        [ MnSt oSked=. 3355E- 02  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09219> R0025: C00099-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09220>      ADD HYD                 1. 0 02: ST2- 1N        326. 12     5. 017 No_date    28: 36   23. 53  n/ a      . 000
09221>                  +      1. 0 02: A7- STR         3. 51      . 164 No_date    28: 23   58. 43  n/ a      . 000
09222>                  +      1. 0 02: A7- OVF         . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09223>                  +      1. 0 02: ST3STR          . 71      . 063 No_date    28: 08   45. 54  n/ a      . 000
09224>                  +      1. 0 02: ST3OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09225>                SUM=     1. 0 01: PT2ST3        330. 34     5. 204 No_date    28: 28   23. 95  n/ a      . 000
09226> R0025: C00100-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09227>      ROUTE CHANNEL     ->    1. 0 02: PT2ST3        330. 34     5. 204 No_date    28: 28   23. 95  n/ a      . 000
09228>        [ RDT= 1. 00] out <-      1. 0 01: DRAI N2        330. 34     4. 806 No_date    29: 00   23. 95  n/ a      . 000
09229>        [ L/ S/ n=  592. / . 230/ . 043]
09230>        [ Vmx=  . 581: Dmx= 1. 088]
09231> R0025: C00101-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09232>      CONTI NUOUS NASHYD      1. 0 01: D2              2. 28      . 062 No_date    29: 03   37. 38  . 502      . 000
09233>        [ CN= 84. 0: N= 3. 00: Tp=  . 99]
09234>        [ IaREC= 4. 00: SM N= 21. 09:  SMX= 140. 62:  SK= . 010]
09235>        [ InterEvent Time= 12. 00]
09236> R0025: C00102-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09237>      CONTI NUOUS STANDHYD    1. 0 01: AI7            12. 04     1. 933 No_date    28: 03   58. 43  . 785      . 000
09238>        [ XI M= 6. 68: TI MP= 6. 85]
09239>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09240>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09241>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  491. : MNI = . 013: SCI =    . 0]
09242>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09243> R0025: C00103-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09244>      ROUTE RESERVOI R ->     1. 0 02: A17            12. 04     1. 933 No_date    28: 03   58. 43  n/ a      . 000
09245>                  out <=     1. 0 01: A17STR         12. 04     . 553 No_date    28: 29   58. 43  n/ a      . 000
09246>                overflow <=     1. 0 03: A17OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09247>        [ MnSt oSked=. 3155E+00  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09248> R0025: C00104-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09249>      CONTI NUOUS STANDHYD    1. 0 01: ST- 4           . 35      . 055 No_date    28: 00   45. 54  . 612      . 000
09250>        [ XI M= 6. 46: TI MP= 6. 57]
09251>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09252>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09253>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  84. : MNI = . 013: SCI =    . 0]
09254>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09255> R0025: C00105-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09256>      ROUTE RESERVOI R ->     1. 0 02: ST- 4           . 35      . 055 No_date    28: 00   45. 54  n/ a      . 000
09257>                  out <=     1. 0 01: ST4STR          . 35      . 031 No_date    28: 07   45. 54  n/ a      . 000
09258>                overflow <=     1. 0 03: ST4OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09259>        [ MnSt oSked=. 2092E- 02  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09260> R0025: C00106-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09261>      CONTI NUOUS STANDHYD    1. 0 01: AI8             5. 30      . 922 No_date    28: 02   58. 43  . 785      . 000
09262>        [ XI M= 6. 68: TI MP= 6. 85]
09263>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09264>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09265>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  326. : MNI = . 013: SCI =    . 0]
09266>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09267> R0025: C00107-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09268>      ROUTE RESERVOI R ->     1. 0 02: AI8             5. 30      . 922 No_date    28: 02   58. 43  n/ a      . 000
09269>                  out <=     1. 0 01: AI8STR          5. 30      . 247 No_date    28: 25   58. 43  n/ a      . 000
09270>                overflow <=     1. 0 03: AI8OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09271>        [ MnSt oSked=. 1408E+00  m3,  Tot OrVol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
09272> R0025: C00108-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09273>      ADD HYD                 1. 0 02: DRAI N2        330. 34     4. 806 No_date    29: 00   23. 95  n/ a      . 000
09274>                  +      1. 0 02: D2              2. 28      . 062 No_date    29: 03   37. 38  n/ a      . 000
09275>                  +      1. 0 02: A17STR         12. 04     . 553 No_date    28: 29   58. 43  n/ a      . 000
09276>                  +      1. 0 02: A17OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09277>                  +      1. 0 02: ST4STR          . 35      . 031 No_date    28: 07   45. 54  n/ a      . 000
09278>                  +      1. 0 02: ST4OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09279>                  +      1. 0 02: AI8STR          5. 30      . 247 No_date    28: 25   58. 43  n/ a      . 000
09280>                  +      1. 0 02: AI8OVF          . 00      . 000 No_date    0: 00    . 00    n/ a      . 000
09281>                SUM=     1. 0 01: PT3ST4        350. 31     5. 557 No_date    28: 56   25. 77  n/ a      . 000
09282> R0025: C00109-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09283>      ROUTE CHANNEL     ->    1. 0 02: PT3ST4        350. 31     5. 557 No_date    28: 56   25. 77  n/ a      . 000
09284>        [ RDT= 1. 00] out <-      1. 0 01: DRAI N3        350. 31     5. 293 No_date    29: 13   25. 77  n/ a      . 000
09285>        [ L/ S/ n=  525. / . 230/ . 043]
09286>        [ Vmx=  . 603: Dmx= 1. 137]
09287> R0025: C00110-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09288>      CONTI NUOUS NASHYD      1. 0 01: D3              2. 51      . 095 No_date    28: 43   40. 67  . 547      . 000
09289>        [ CN= 86. 0: N= 3. 00: Tp=  . 73]
09290>        [ IaREC= 4. 00: SM N= 17. 43:  SMX= 116. 21:  SK= . 010]
09291>        [ InterEvent Time= 12. 00]
09292> R0025: C00111-------------DTmin- 1 D: NHYD----------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
09293>      CONTI NUOUS STANDHYD    1. 0 01: C1              3. 41      . 618 No_date    28: 01   58. 43  . 785      . 000
09294>        [ XI M= 6. 68: TI MP= 6. 85]
09295>        [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
09296>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= . 250: SCP=    . 0]
09297>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  261. : MNI = . 013: SCI =    . 0]
09298>        [ IaREC mp=     4. 00: IaREC per=     4. 00]
09299> R0025: C00112-------------DTmin- 1 D: NHYD----------AREAha- QPE
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09351>          [ IaREC] mp=   4.00: IaREC per=   4.00]
09352> R0025: C00121- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09353>          SAVE HYD              1. 0 01: Area- A          66. 75      7. 879 No_date   28: 09    56. 06  n/ a      .000
09354>              fname : Area- A 0025
09355>              remrk: SMWF- A I nflow
09356> R0025: C00122- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09357>          ROUTE RESERVOI R - >  1. 0 02: Area- A          66. 75      7. 879 No_date   28: 09    56. 06  n/ a      .000
09358>                          out <=   1. 0 01: SWMF- A       66. 75       . 788 No_date   29: 28    56. 05  n/ a      .000
09359>                 overflow <=   1. 0 03: SWMOVF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09360>          [ MoSt ol ked= 2. 2643E+01  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09361> R0025: C00123- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09362>          SAVE HYD              1. 0 01: SWMF- A          66. 75       . 788 No_date   29: 28    56. 05  n/ a      .000
09363>              fname : SWMF- A 0025
09364>              remrk: SMWF- A Out f low
09365> R0025: C00124- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09366>          ADD HYD               1. 0 02: SSAOUT          364. 27      5. 589 No_date   29: 11    26. 85  n/ a      .000
09367>                          +     1. 0 02: SWMF- A          66. 75       . 788 No_date   29: 28    56. 05  n/ a      .000
09368>                          +     1. 0 02: SWMOV            .00          . 000 No_date    0: 00      .00  n/ a      .000
09369>                          SUM=  1. 0 01: PT4ST5          431. 02      6. 356 No_date   29: 13    31. 37  n/ a      .000
09370> R0025: C00125- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09371>          CONTI NUOUS STANDHYD  1. 0 01: C6              1. 87       . 354 No_date   28: 01    58. 43  . 785     .000
09372>              [ XI M=  . 68: TI MP=  . 85]
09373>              [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=. 14:    F=  . 00]
09374>              [ Pervious     area: I Ap=  4. 67: SLPP=  50. : LGP=  50. : MNP=. 250: SCP=    . 0]
09375>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 50: LGI =  193. : MNI =. 013: SCI =    . 0]
09376>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09377> R0025: C00126- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09378>          ROUTE RESERVOI R - >  1. 0 02: C6              1. 87       . 354 No_date   28: 01    58. 43  n/ a      .000
09379>                          out <=   1. 0 01: C6- STR        1. 87       . 089 No_date   28: 21    58. 43  n/ a      .000
09380>                 overflow <=   1. 0 03: C6- OVF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09381>          [ MoSt ol ked= 5. 5013E- 01  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09382> R0025: C00127- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09383>          CONTI NUOUS STANDHYD  1. 0 01: C7              1. 62       . 309 No_date   28: 01    58. 43  . 785     .000
09384>              [ XI M=  . 68: TI MP=  . 85]
09385>              [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=. 14:    F=  . 00]
09386>              [ Pervious     area: I Ap=  4. 67: SLPP=  50. : LGP=  50. : MNP=. 250: SCP=    . 0]
09387>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 50: LGI =  180. : MNI =. 013: SCI =    . 0]
09388>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09389> R0025: C00128- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09390>          ROUTE RESERVOI R - >  1. 0 02: C7              1. 62       . 309 No_date   28: 01    58. 43  n/ a      .000
09391>                          out <=   1. 0 01: C7- STR        1. 62       . 077 No_date   28: 21    58. 43  n/ a      .000
09392>                 overflow <=   1. 0 03: C7- OVF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09393>          [ MoSt ol ked= 4. 4331E- 01  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09394> R0025: C00129- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09395>          CONTI NUOUS STANDHYD  1. 0 01: ST- 6             . 41       . 065 No_date   28: 00    45. 54  . 612     .000
09396>              [ XI M=  . 46: TI MP=  . 57]
09397>              [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=. 14:    F=  . 00]
09398>              [ Pervious     area: I Ap=  4. 67: SLPP=  50. : LGP=  50. : MNP=. 250: SCP=    . 0]
09399>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 50: LGI =  91. : MNI =. 013: SCI =    . 0]
09400>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09401> R0025: C00130- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09402>          ROUTE RESERVOI R - >  1. 0 02: ST- 6             . 41       . 065 No_date   28: 00    45. 54  n/ a      .000
09403>                          out <=   1. 0 01: ST6STR         . 41       . 036 No_date   28: 07    45. 54  n/ a      .000
09404>                 overflow <=   1. 0 03: ST6OVF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09405>          [ MoSt ol ked= 2. 2350E- 02  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09406> R0025: C00131- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09407>          ADD HYD               1. 0 02: PT4ST5          431. 02      6. 356 No_date   29: 13    31. 37  n/ a      .000
09408>                          +     1. 0 02: C6- STR          1. 87       . 089 No_date   28: 21    58. 43  n/ a      .000
09409>                          +     1. 0 02: C6- OVF          .00          . 000 No_date    0: 00      .00  n/ a      .000
09410>                          +     1. 0 02: C7- STR          1. 62       . 077 No_date   28: 21    58. 43  n/ a      .000
09411>                          +     1. 0 02: C7- OVF          .00          . 000 No_date    0: 00      .00  n/ a      .000
09412>                          +     1. 0 02: ST6STR           . 41       . 036 No_date   28: 07    45. 54  n/ a      .000
09413>                          +     1. 0 02: ST6OVF           .00          . 000 No_date    0: 00      .00  n/ a      .000
09414>                          SUM=  1. 0 01: PT5ST6          434. 92      6. 464 No_date   29: 12    31. 60  n/ a      .000
09415> R0025: C00132- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09416>          ROUTE CHANNEL         - >  1. 0 02: PT5ST6          434. 92      6. 464 No_date   29: 12    31. 60  n/ a      .000
09417>              [ RDT= 1. 00] out <-     1. 0 01: DRAI N4      434. 92      6. 229 No_date   29: 21    31. 60  n/ a      .000
09418>              [ L/ S/ n=  324. /  . 100/ . 043]
09419>              [ Vmx=  . 475: Dmx=  1. 440]
09420> R0025: C00133- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09421>          CONTI NUOUS NASHYD    1. 0 01: D4              1. 73       . 082 No_date   28: 34    43. 34  . 583     .000
09422>              [ CN=  88. 0: N=  3. 00: Tp=   . 60]
09423>              [ I aREC=  4. 00: SMN=  14. 94: SMX=  99. 61: SK=  . 010]
09424>              [ I nt erEvent Ti me=   12. 00]
09425> R0025: C00134- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09426>          CONTI NUOUS STANDHYD  1. 0 01: Area- B          24. 04      3. 916 No_date   28: 03    54. 85  . 737     .000
09427>              [ XI M=  . 62: TI MP=  . 77]
09428>              [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=. 14:    F=  . 00]
09429>              [ Pervious     area: I Ap=  4. 67: SLPP=  1. 40: LGP=   50. : MNP=. 250: SCP=    . 0]
09430>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  1. 40: LGI =  693. : MNI =. 013: SCI =    . 0]
09431>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09432> R0025: C00135- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09433>          ROUTE RESERVOI R - >  1. 0 02: Area- B          24. 04      3. 916 No_date   28: 03    54. 85  n/ a      .000
09434>                          out <=   1. 0 01: SWMF- B        24. 04       . 492 No_date   28: 44    54. 85  n/ a      .000
09435>                 overflow <=   1. 0 03: SWMOVF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09436>          [ MoSt ol ked= 8. 8178E+00  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09437> R0025: C00136- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09438>          ADD HYD               1. 0 02: DRAI N4          434. 92      6. 229 No_date   29: 21    31. 60  n/ a      .000
09439>                          +     1. 0 02: D4               1. 73       . 082 No_date   28: 34    43. 34  n/ a      .000
09440>                          +     1. 0 02: SWMF- B          24. 04       . 492 No_date   28: 44    54. 85  n/ a      .000
09441>                          +     1. 0 02: SWMOVF           .00          . 000 No_date    0: 00      .00  n/ a      .000
09442>                          SUM=  1. 0 01: D4- EX          460. 69      6. 717 No_date   29: 21    32. 86  n/ a      .000
09443> R0025: C00137- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09444>          ROUTE CHANNEL         - >  1. 0 02: D4- EX          460. 69      6. 717 No_date   29: 21    32. 86  n/ a      .000
09445>              [ RDT= 1. 00] out <-     1. 0 01: DRAI N5      460. 69      6. 598 No_date   29: 35    32. 86  n/ a      .000
09446>              [ L/ S/ n=  413. /  . 160/ . 033]
09447>              [ Vmx=  . 641: Dmx=  . 984]
09448> R0025: C00138- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09449>          CONTI NUOUS NASHYD    1. 0 01: D5              1. 90       . 075 No_date   28: 41    40. 67  . 547     .000
09450>              [ CN=  86. 0: N=  3. 00: Tp=   . 69]
09451>              [ I aREC=  4. 00: SMN=  17. 43: SMX=  116. 21: SK=  . 010]
09452>              [ I nt erEvent Ti me=   12. 00]
09453> R0025: C00139- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09454>          CONTI NUOUS NASHYD    1. 0 01: O 13SDF         9. 74       . 487 No_date   28: 22    38. 23  . 514     .000
09455>              [ CN=  81. 0: N=  3. 00: Tp=   . 43]
09456>              [ I aREC=  4. 00: SMN=  25. 21: SMX=  168. 09: SK=  . 010]
09457>              [ I nt erEvent Ti me=   12. 00]
09458> R0025: C00140- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09459>          ROUTE RESERVOI R - >  1. 0 02: O 13SDF         9. 74       . 487 No_date   28: 22    38. 23  n/ a      .000
09460>                          out <=   1. 0 01: SDF            9. 74       . 052 No_date   31: 01    38. 23  n/ a      .000
09461>                 overflow <=   1. 0 03: OVFSDF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09462>          [ MoSt ol ked= 2. 2061E+00  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09463> R0025: C00141- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09464>          ADD HYD               1. 0 02: DRAI N5          460. 69      6. 598 No_date   29: 35    32. 86  n/ a      .000
09465>                          +     1. 0 02: D5               1. 90       . 075 No_date   28: 41    40. 67  n/ a      .000
09466>                          +     1. 0 02: SDF              9. 74       . 052 No_date   31: 01    38. 23  n/ a      .000
09467>                          SUM=  1. 0 01: PT6MC           472. 33      6. 689 No_date   29: 35    33. 00  n/ a      .000
09468> R0025: C00142- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09469>          CONTI NUOUS NASHYD    1. 0 01: O 15            10. 67       . 668 No_date   28: 13    37. 06  . 498     .000
09470>              [ CN=  82. 0: N=  3. 00: Tp=   . 30]
09471>              [ I aREC=  4. 00: SMN=  23. 09: SMX=  153. 94: SK=  . 010]
09472>              [ I nt erEvent Ti me=   12. 00]
09473> R0025: C00143- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09474>          ADD HYD               1. 0 02: PT6MC           472. 33      6. 689 No_date   29: 35    33. 00  n/ a      .000
09475>                          +     1. 0 02: O 15             10. 67       . 668 No_date   28: 13    37. 06  n/ a      .000
09476>                          SUM=  1. 0 01: MC              483. 00      6. 790 No_date   29: 34    33. 09  n/ a      .000
09477> R0025: C00144- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09478>          ROUTE CHANNEL         - >  1. 0 02: MC              483. 00      6. 790 No_date   29: 34    33. 09  n/ a      .000
09479>              [ RDT= 1. 00] out <-     1. 0 01: O 14Ch       483. 00      6. 173 No_date   30: 10    33. 09  n/ a      .000
09480>              [ L/ S/ n=  845. /  . 100/ . 033]
09481>              [ Vmx=  . 552: Dmx=  1. 692]
09482> R0025: C00145- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09483>          CONTI NUOUS NASHYD    1. 0 01: O 14            5. 00       . 516 No_date   28: 04    37. 06  . 498     .000
09484>              [ CN=  82. 0: N=  3. 00: Tp=   . 13]
09485>              [ I aREC=  4. 00: SMN=  23. 09: SMX=  153. 94: SK=  . 010]
09486>              [ I nt erEvent Ti me=   12. 00]
09487> R0025: C00146- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09488>          ADD HYD               1. 0 02: O 14Ch           483. 00      6. 173 No_date   30: 10    33. 09  n/ a      .000
09489>                          +     1. 0 02: O 14             5. 00       . 516 No_date   28: 04    37. 06  n/ a      .000
09490>                          SUM=  1. 0 01: OKEEFE          488. 00      6. 203 No_date   30: 09    33. 13  n/ a      .000
09491> #**************************************************************************
09492> #     Okeefe Pond
09493> #     - Rating curve obtained assuming 40mm3/ ha in 24 hours for quality control
09494> #       and a ratio of the catchment area to the West Clarke pond rating curve
09495> #       from the MES for the next coordinates
09496> #**************************************************************************
09497> R0025: C00147- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09498>          CONTI NUOUS STANDHYD  1. 0 01: S- 1- D2          18. 67      2. 960 No_date   28: 01    57. 38  . 771     .000
09499>              [ XI M=  . 65: TI MP=  . 65]
09500>              [ LOSS=  2 : CN=  75. 0]
09501>              [ Pervious     area: I Ap=  4. 67: SLPP=  2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09502>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 75: LGI =  353. : MNI =. 013: SCI =    . 0]
09503>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09504>              [ SMN=  33. 81: SMX=  225. 43: SK=  . 010]
09505> R0025: C00148- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09506>          COMPUTE DUALHYD       1. 0 01: S- 1- D2        18. 67      2. 960 No_date   28: 01    57. 38  n/ a      .000
09507>              Mj or System   /     1. 0 02: S- 1- D2I       .00          . 000 No_date    0: 00      .00  n/ a      .000
09508>              Mi nor System  \     1. 0 02: S- 1- D2N      18. 67      2. 097 No_date   27: 55    57. 70  n/ a      .000
09509>              [ Mj Sys St o=. 4055E+03,  Tot Ovf Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09510> R0025: C00149- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09511>          ADD HYD               1. 0 02: S- 1- D2I           .00          . 000 No_date    0: 00      .00  n/ a      .000
09512>                          +     1. 0 02: S- 1- D2N        18. 67      2. 097 No_date   27: 55    57. 70  n/ a      .000
09513>                          SUM=  1. 0 01: S- 1- D2S        18. 67      2. 097 No_date   27: 55    57. 70  n/ a      .000
09514> R0025: C00150- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09515>          ROUTE RESERVOI R - >  1. 0 02: S- 1- D2S        18. 67      2. 097 No_date   27: 55    57. 70  n/ a      .000
09516>                          out <=   1. 0 01: S- 1- D2R      18. 67       . 194 No_date   29: 20    57. 70  n/ a      .000
09517>                 overflow <=   1. 0 03: S- 1- D2ROvf         .00          . 000 No_date    0: 00      .00  n/ a      .000
09518>          [ MoSt ol ked= 6. 6483E+00  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09519> R0025: C00151- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09520>          CONTI NUOUS STANDHYD  1. 0 01: S- 1- D3          6. 79      1. 150 No_date   28: 01    57. 38  . 771     .000
09521>              [ XI M=  . 65: TI MP=  . 65]
09522>              [ LOSS=  2 : CN=  75. 0]
09523>              [ Pervious     area: I Ap=  4. 67: SLPP=  2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09524>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 75: LGI =  213. : MNI =. 013: SCI =    . 0]
09525>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09526>              [ SMN=  33. 81: SMX=  225. 43: SK=  . 010]
09527> R0025: C00152- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09528>          COMPUTE DUALHYD       1. 0 01: S- 1- D3          6. 79      1. 150 No_date   28: 01    57. 38  n/ a      .000
09529>              Mj or System   /     1. 0 02: S- 1- D3J       .00          . 000 No_date    0: 00      .00  n/ a      .000
09530>              Mi nor System  \     1. 0 03: S- 1- D3N        6. 79       . 831 No_date   27: 54    57. 61  n/ a      .000
09531>              [ Mj Sys St o=. 1361E+03,  Tot Ovf Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09532> R0025: C00153- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09533>          ADD HYD               1. 0 02: S- 1- D3J           .00          . 000 No_date    0: 00      .00  n/ a      .000
09534>                          +     1. 0 02: S- 1- D3N        6. 79       . 831 No_date   27: 54    57. 61  n/ a      .000
09535>                          SUM=  1. 0 01: S- 1- D3S        6. 79       . 831 No_date   27: 54    57. 61  n/ a      .000
09536> R0025: C00154- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09537>          ROUTE RESERVOI R - >  1. 0 02: S- 1- D3S        6. 79       . 831 No_date   27: 54    57. 61  n/ a      .000
09538>                          out <=   1. 0 01: S- 1- D3R      6. 79       . 070 No_date   29: 16    57. 61  n/ a      .000
09539>                 overflow <=   1. 0 03: S- 1- D3Rovf         .00          . 000 No_date    0: 00      .00  n/ a      .000
09540>          [ MoSt ol ked= 2. 2353E+00  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09541> R0025: C00155- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09542>          ADD HYD               1. 0 02: N_OK           53064. 36    107. 360 No_date   33: 27    28. 68  n/ a      .000
09543>                          +     1. 0 02: OKEEFE           488. 00      6. 203 No_date   30: 09    33. 13  n/ a      .000
09544>                          +     1. 0 02: S- 1- D2R         18. 67       . 194 No_date   29: 20    57. 70  n/ a      .000
09545>                          +     1. 0 02: S- 1- D3R          6. 79       . 070 No_date   29: 16    57. 61  n/ a      .000
09546>                          +     1. 0 02: S- 1- D2Rovf         .00          . 000 No_date    0: 00      .00  n/ a      .000
09547>                          +     1. 0 02: S- 1- D3Rovf         .00          . 000 No_date    0: 00      .00  n/ a      .000
09548>                          SUM=  1. 0 01: SN_OK          53577. 82    109. 739 No_date   33: 27    28. 74  n/ a      .000
09549> R0025: C00156- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09550>          SAVE HYD              1. 0 01: SN_OK           53577. 82    109. 739 No_date   33: 27    28. 74  n/ a      .000
09551>              fname : SN_OK 0025
09552>              remrk: Total Flows at Okeefe Drain
09553> #
09554> # Hydrograph from Node Okeefe routed to Node at Foster Drain
09555> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
09556> #
09557> R0025: C00157- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09558>          ROUTE CHANNEL         - >  1. 0 02: SN_OK           53577. 82    109. 739 No_date   33: 27    28. 74  n/ a      .000
09559>              [ RDT= 1. 00] out <-     1. 0 01: N_FO         53577. 82    109. 449 No_date   33: 28    28. 74  n/ a      .000
09560>              [ L/ S/ n=  1183. /  . 076/ . 035]
09561>              [ Vmx=  1. 186: Dmx=  3. 166]
09562> #**************************************************************************
09563> #     Catchment  FOSTER
09564> #     - To Foster ditch (north of the Jock)
09565> #     - Partially developed (medium density): remining agricultural
09566> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CHEMHILL, Aug 2013.
09567> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
09568> #     - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
09569> #**************************************************************************
09570> R0025: C00158- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09571>          CONTI NUOUS STANDHYD  1. 0 01: FOSTER          325. 44      28. 008 No_date   28: 12    52. 35  . 704     .000
09572>              [ XI M=  . 55: TI MP=  . 55]
09573>              [ LOSS=  2 : CN=  74. 0]
09574>              [ Pervious     area: I Ap=  4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    . 0]
09575>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 50: LGI =  1473. : MNI =. 013: SCI =    . 0]
09576>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09577>              [ SMN=  36. 67: SMX=  244. 49: SK=  . 010]
09578> #**************************************************************************
09579> #     Foster Pond
09580> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
09581> #       and a ratio of the catchment area to the West Clarke pond rating curve
09582> #       from the MES for the next coordinates
09583> #**************************************************************************
09584> R0025: C00159- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09585>          ROUTE RESERVOI R - >  1. 0 02: FOSTER          325. 44      28. 008 No_date   28: 12    52. 35  n/ a      .000
09586>                          out <=   1. 0 01: P_FOS          325. 44       7. 246 No_date   29: 04    52. 35  n/ a      .000
09587>                 overflow <=   1. 0 03: FO- OVF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09588>          [ MoSt ol ked= 5. 7008E+01  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09589> R0025: C00160- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09590>          ADD HYD               1. 0 02: P_FOS           325. 44       7. 246 No_date   29: 04    52. 35  n/ a      .000
09591>                          +     1. 0 02: FOVOVF           .00          . 000 No_date    0: 00      .00  n/ a      .000
09592>                          SUM=  1. 0 01: FOSTER- OUT      325. 44       7. 246 No_date   29: 04    52. 35  n/ a      .000
09593> #**************************************************************************
09594> R0025: C00161- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09595>          CONTI NUOUS STANDHYD  1. 0 01: W_CLAR_BRA        73. 29      9. 076 No_date   28: 05    56. 82  . 764     .000
09596>              [ XI M=  . 60: TI MP=  . 65]
09597>              [ LOSS=  2 : CN=  77. 0]
09598>              [ Pervious     area: I Ap=  4. 67: SLPP=  1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
09599>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 50: LGI =  699. : MNI =. 013: SCI =    . 0]
09600>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09601>              [ SMN=  31. 15: SMX=  207. 66: SK=  . 010]
09602> R0025: C00162- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09603>          ROUTE RESERVOI R - >  1. 0 02: W_CLAR_BRA        73. 29      9. 076 No_date   28: 05    56. 82  n/ a      .000
09604>                          out <=   1. 0 01: MS_P10         73. 29       1. 168 No_date   29: 06    56. 82  n/ a      .000
09605>                 overflow <=   1. 0 03: P10_OVF            .00          . 000 No_date    0: 00      .00  n/ a      .000
09606>          [ MoSt ol ked= 1. 685E+01  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09607> R0025: C00163- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09608>          CONTI NUOUS STANDHYD  1. 0 01: S- 1- FO- D2       4. 94       . 707 No_date   28: 01    52. 35  . 704     .000
09609>              [ XI M=  . 55: TI MP=  . 55]
09610>              [ LOSS=  2 : CN=  74. 0]
09611>              [ Pervious     area: I Ap=  4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    . 0]
09612>              [ I mpervious  area: I Ai mp=  1. 57: SLPI =  . 50: LGI =  181. : MNI =. 013: SCI =    . 0]
09613>              [ I aREC] mp=   4. 00: I aREC per=   4. 00]
09614>              [ SMN=  36. 67: SMX=  244. 49: SK=  . 010]
09615> R0025: C00164- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09616>          COMPUTE DUALHYD       1. 0 01: S- 1- FO- D2       4. 94       . 707 No_date   28: 01    52. 35  n/ a      .000
09617>              Mj or System   /     1. 0 02: S- 1- FO- D2I       .00          . 000 No_date    0: 00      .00  n/ a      .000
09618>              Mi nor System  \     1. 0 03: S- 1- FO- D2N       4. 94       . 508 No_date   28: 14    52. 51  n/ a      .000
09619>              [ Mj Sys St o=. 8671E+02,  Tot Ovf Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09620> R0025: C00165- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09621>          ADD HYD               1. 0 02: S- 1- FO- D2J           .00          . 000 No_date    0: 00      .00  n/ a      .000
09622>                          +     1. 0 02: S- 1- FO- D2N       4. 94       . 508 No_date   28: 14    52. 51  n/ a      .000
09623>                          SUM=  1. 0 01: S- 1- FO- D2S       4. 94       . 508 No_date   28: 14    52. 51  n/ a      .000
09624> R0025: C00166- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09625>          ROUTE RESERVOI R - >  1. 0 02: S- 1- FO- D2S       4. 94       . 508 No_date   28: 14    52. 51  n/ a      .000
09626>                          out <=   1. 0 01: S- 1- FO- D2R      4. 94       . 046 No_date   29: 33    52. 50  n/ a      .000
09627>                 overflow <=   1. 0 03: S- 1- FO- D2Ovf        .00          . 000 No_date    0: 00      .00  n/ a      .000
09628>          [ MoSt ol ked= 1. 1543E+00  m3,  Tot Ovf Vol = 0. 0000E+00  m3,  N- Ov f =     0,  Tot Dur Ovf =     0. hr s]
09629> R0025: C00167- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09630>          ADD HYD               1. 0 02: FOSTER- OUT     325. 44       7. 246 No_date   29: 04    52. 35  n/ a      .000
09631>                          +     1. 0 02: S- 1- FO- D2R       4. 94       . 046 No_date   29: 33    52. 50  n/ a      .000
09632>                          +     1. 0 02: S- 1- FOD2ovf        .00          . 000 No_date    0: 00      .00  n/ a      .000
09633>                          SUM=  1. 0 01: 980             330. 38      7. 292 No_date   29: 04    52. 35  n/ a      .000
09634> R0025: C00168- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09635>          SAVE HYD              1. 0 01: 980             330. 38      7. 292 No_date   29: 04    52. 35  n/ a      .000
09636>              fname : 980. 0025
09637>              remrk: Total Flows at Station 980 on Foster Drain
09638> #
09639> # Hydrograph from Node Foster SWM (Station 980) to Node at station 520
09640> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
09641> #
09642> R0025: C00169- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09643>          ROUTE CHANNEL         - >  1. 0 02: 980             330. 38      7. 292 No_date   29: 04    52. 35  n/ a      .000
09644> *            [ RDT= 1. 00] out <-     1. 0 01: 980- out     330. 38      7. 051 No_date   29: 15    52. 35  n/ a      .000
09645>              [ L/ S/ n=  460. /  . 043/ . 035]
09646>              [ Vmx=  . 642: Dmx=  1. 516]
09647> R0025: C00170- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09648>          CONTI NUO
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09725>       ROUTE RESERVOIR -> .      1.0 02: S-1-DS5          5.27      .672 No_date    27:55    42.30  n/a      .000
09726>                      out <=     1.0 01: S-1-D5R          5.27      .050 No_date    28:47    42.30  n/a      .000
09727>                overflow <=      1.0 03: S-1-D5Rovf        .00      .000 No_date     0:00      .00  n/a      .000
09728>        {MsSt olked=.1658E+00  m3,  Tot Orf Vol =.0000E+00  m3,  N-Orf =     0,  Tot Dur Orf =     0. hrs}
09729> R0025: C00185-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09730>       CONTI NUOUS NASHYD       1.0 01: S-1-A            75.88     2.541 No_date    28:36    34.14  .459      .000
09731>          [ CN= 77. 0:  N= 3. 00:  Tp=   .62]
09732>          [ I aREC= 4. 00:  SMN= 31. 15:  SMAX=207. 66:  SK=  .010]
09733>          [ I nterEvent Ti me=  12. 00]
09734> R0025: C00186-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09735>       CONTI NUOUS NASHYD       1.0 01: W_CLAR_UND       35.65      .789 No_date    29:10    34.14  .459      .000
09736>          [ CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
09737>          [ I aREC= 4. 00:  SMN= 31. 15:  SMAX=207. 66:  SK=  .010]
09738>          [ I nterEvent Ti me=  12. 00]
09739> R0025: C00187-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09740>       ADD HYD                  1.0 02: N_FO          53577. 82  109. 449 No_date    33:28    28. 74  n/a      .000
09741>                          +     1.0 02: S20- out         335. 49    7. 032 No_date    29:23    52. 43  n/a      .000
09742>                          +     1.0 02: MS_ P10           73. 29    1. 168 No_date    29:06    56. 82  n/a      .000
09743>                          +     1.0 02: P10- OVF            .00      .000 No_date     0:00      .00  n/a      .000
09744>                          +     1.0 02: W_CLAR_UND       35. 65      .789 No_date    29:10    34. 14  n/a      .000
09745>                          +     1.0 02: S-1Fo Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09746>                          +     1.0 02: S-1FO- F- DR      14. 96      .153 No_date    29:30    56. 95  n/a      .000
09747>                          +     1.0 02: S-1-D5Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09748>                          +     1.0 02: S-1-D5R           5. 27      .050 No_date    28:47    42. 30  n/a      .000
09749>                          +     1.0 02: S-1-A            75. 88     2. 541 No_date    28:36    34. 14  n/a      .000
09750>                     SUM=       1.0 01: SN_FO         54118. 36  114. 198 No_date    33:27    28. 94  n/a      .000
09751> R0025: C00188-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09752>       SAVE HYD                 1.0 01: SN_FO         54118. 36  114. 198 No_date    33:27    28. 94  n/a      .000
09753>          fname : SN_FO 0025
09754>          remark: Total flows at Foster Drain
09755> # Hydrograph from Node Foster routed to Node at Cedarview Road
09756> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
09757> #
09758> R0025: C00189-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09759>       ROUTE CHANNEL -> .       1.0 02: SN_FO         54118. 36  114. 198 No_date    33:27    28. 94  n/a      .000
09760> *     [ RDT= 1. 00]  out <-    1.0 01: N_CE          54118. 36  114. 014 No_date    33:32    28. 94  n/a      .000
09761>          [ L/ S/ n=  159. /  .082/ . 035]
09762>          [ Vmax= 1. 425:  Dmax= 3. 814]
09763> #*************************************************************************
09764> #   Catchment S-1
09765> #    - To Jock River (north and south of Jock)
09766> #    - Primarily agricutural fields; portion of sand quarry
09767> #*************************************************************************
09768> R0025: C00190-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09769>       CONTI NUOUS NASHYD       1.0 01: S-1-B            55. 36     2. 311 No_date    28:23    34. 14  .459      .000
09770>          [ CN= 77. 0:  N= 3. 00:  Tp=   .45]
09771>          [ I aREC= 4. 00:  SMN= 31. 15:  SMAX=207. 66:  SK=  .010]
09772>          [ I nterEvent Ti me=  12. 00]
09773> #    -   JFSA 2021-02-24 change the name from S-1- BCDC to S-1-A and S-1-B. Change their TP values based on the new areas
09774> #    -   JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and
09775> #    -   JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
09776> R0025: C00191-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09777>       CONTI NUOUS STANDHYD     1.0 01: S-1-D1           21. 67     3. 385 No_date    28:01    57. 38  .771      .000
09778>          [ XI MP= .65:  TI MP= .65]
09779>          [ LOSS= 2 :  CN= 75. 0]
09780>          [ Pervious      area:  I Aper= 4. 67:  SLPP=2. 00:  LGP=   40. :  MNP=. 250:  SCP=    .0]
09781>          [ Impervious    area:  I Aimp= 1. 57:  SLPI =. 75:  LGI =  380. :  MNI =. 013:  SCI =    .0]
09782>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
09783>          [ SMN= 33. 81:  SMAX=225. 43:  SK=  .010]
09784> R0025: C00192-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09785>       COMPUTE DUALHYD          1.0 01: S-1-DI           21. 67     3. 385 No_date    28:01    57. 38  n/a      .000
09786>          Major System    /     1.0 02: S-1-DIJ             .00      .000 No_date     0:00      .00  n/a      .000
09787>          Minor System    \     1.0 03: S-1-DIN          21. 67     2. 409 No_date    27:55    57. 58  n/a      .000
09788>          [ MjSysSto=. 4594E+03,  Tot Orf Vol =. 0000E+00,  N-Orf =     0,  Tot Dur Orf =     0. hrs]
09789> R0025: C00193-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09790>       ADD HYD                  1.0 02: S-1-DIJ             .00      .000 No_date     0:00      .00  n/a      .000
09791>                          +     1.0 02: S-1-DIN          21. 67     2. 409 No_date    27:55    57. 58  n/a      .000
09792>                     SUM=       1.0 01: S-1-DIS          21. 67     2. 409 No_date    27:55    57. 58  n/a      .000
09793> R0025: C00194-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09794>       ROUTE RESERVOIR -> .     1.0 02: S-1-DIS          21. 67     2. 409 No_date    27:55    57. 58  n/a      .000
09795>                      out <=    1.0 01: S-1-DIR          21. 67      .225 No_date    29:22    57. 58  n/a      .000
09796>                overflow <=      1.0 03: S-1-DIRovf          .00      .000 No_date     0:00      .00  n/a      .000
09797>        {MsSt olked=. 7499E+00  m3,  Tot Orf Vol =. 0000E+00  m3,  N-Orf =     0,  Tot Dur Orf =     0. hrs}
09798> R0025: C00195-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09799>       CONTI NUOUS STANDHYD     1.0 01: S-1-D4            3. 28      .581 No_date    28:00    57. 38  .771      .000
09800>          [ XI MP= .65:  TI MP= .65]
09801>          [ LOSS= 2 :  CN= 75. 0]
09802>          [ Pervious      area:  I Aper= 4. 67:  SLPP=2. 00:  LGP=   40. :  MNP=. 250:  SCP=    .0]
09803>          [ Impervious    area:  I Aimp= 1. 57:  SLPI =. 75:  LGI =  148. :  MNI =. 013:  SCI =    .0]
09804>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
09805>          [ SMN= 33. 81:  SMAX=225. 43:  SK=  .010]
09806> R0025: C00196-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09807>       COMPUTE DUALHYD          1.0 01: S-1-D4            3. 28      .581 No_date    28:00    57. 38  n/a      .000
09808>          Major System    /     1.0 02: S-1-D4J             .00      .000 No_date     0:00      .00  n/a      .000
09809>          Minor System    \     1.0 03: S-1-D4N           3. 28      .421 No_date    27:54    57. 72  n/a      .000
09810>          [ MjSysSto=. 6427E+02,  Tot Orf Vol =. 0000E+00,  N-Orf =     0,  Tot Dur Orf =     0. hrs]
09811> R0025: C00197-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09812>       ADD HYD                  1.0 02: S-1-D4J             .00      .000 No_date     0:00      .00  n/a      .000
09813>                          +     1.0 02: S-1-D4N           3. 28      .421 No_date    27:54    57. 72  n/a      .000
09814>                     SUM=       1.0 01: S-1-D4S           3. 28      .421 No_date    27:54    57. 72  n/a      .000
09815> R0025: C00198-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09816>       ROUTE RESERVOIR -> .     1.0 02: S-1-D4S           3. 28      .421 No_date    27:54    57. 72  n/a      .000
09817>                      out <=    1.0 01: S-1-D4R           3. 28      .034 No_date    29:13    57. 71  n/a      .000
09818>                overflow <=      1.0 03: S-1-D4Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09819>        {MsSt olked=. 1140E+00  m3,  Tot Orf Vol =. 0000E+00  m3,  N-Orf =     0,  Tot Dur Orf =     0. hrs}
09820> R0025: C00199-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09821>       CONTI NUOUS STANDHYD     1.0 01: S-1-D5           12. 84     2. 083 No_date    28:01    57. 38  .771      .000
09822>          [ XI MP= .65:  TI MP= .65]
09823>          [ LOSS= 2 :  CN= 75. 0]
09824>          [ Pervious      area:  I Aper= 4. 67:  SLPP=2. 00:  LGP=   40. :  MNP=. 250:  SCP=    .0]
09825>          [ Impervious    area:  I Aimp= 1. 57:  SLPI =. 75:  LGI =  293. :  MNI =. 013:  SCI =    .0]
09826>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
09827>          [ SMN= 33. 81:  SMAX=225. 43:  SK=  .010]
09828> R0025: C00200-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09829>       COMPUTE DUALHYD          1.0 01: S-1-D5           12. 84     2. 083 No_date    28:01    57. 38  n/a      .000
09830>          Major System    /     1.0 02: S-1-D5J             .00      .000 No_date     0:00      .00  n/a      .000
09831>          Minor System    \     1.0 03: S-1-D5N          12. 84     1. 500 No_date    27:55    57. 52  n/a      .000
09832>          [ MjSysSto=. 2624E+03,  Tot Orf Vol =. 0000E+00,  N-Orf =     0,  Tot Dur Orf =     0. hrs]
09833> R0025: C00201-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09834>       ADD HYD                  1.0 02: S-1-D5J             .00      .000 No_date     0:00      .00  n/a      .000
09835>                          +     1.0 02: S-1-D5N          12. 84     1. 500 No_date    27:55    57. 52  n/a      .000
09836>                     SUM=       1.0 01: S-1-D5S          12. 84     1. 500 No_date    27:55    57. 52  n/a      .000
09837> R0025: C00202-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09838>       ROUTE RESERVOIR -> .     1.0 02: S-1-D5S          12. 84     1. 500 No_date    27:55    57. 52  n/a      .000
09839>                      out <=    1.0 01: S-1-D5R          12. 84      .133 No_date    29:19    57. 52  n/a      .000
09840>                overflow <=      1.0 03: S-1-D5Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09841>        {MsSt olked=. 4437E+00  m3,  Tot Orf Vol =. 0000E+00  m3,  N-Orf =     0,  Tot Dur Orf =     0. hrs}
09842> R0025: C00203-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09843>       CONTI NUOUS STANDHYD     1.0 01: S-1-D6            1. 75      .319 No_date    28:00    57. 38  .771      .000
09844>          [ XI MP= .65:  TI MP= .65]
09845>          [ LOSS= 2 :  CN= 75. 0]
09846>          [ Pervious      area:  I Aper= 4. 67:  SLPP=2. 00:  LGP=   40. :  MNP=. 250:  SCP=    .0]
09847>          [ Impervious    area:  I Aimp= 1. 57:  SLPI =. 75:  LGI =  108. :  MNI =. 013:  SCI =    .0]
09848>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
09849>          [ SMN= 33. 81:  SMAX=225. 43:  SK=  .010]
09850> R0025: C00204-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09851>       COMPUTE DUALHYD          1.0 01: S-1-D6            1. 75      .319 No_date    28:00    57. 38  n/a      .000
09852>          Major System    /     1.0 02: S-1-D6J             .00      .000 No_date     0:00      .00  n/a      .000
09853>          Minor System    \     1.0 03: S-1-D6N           1. 75      .232 No_date    27:53    57. 55  n/a      .000
09854>          [ MjSysSto=. 3427E+02,  Tot Orf Vol =. 0000E+00,  N-Orf =     0,  Tot Dur Orf =     0. hrs]
09855> R0025: C00205-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09856>       ADD HYD                  1.0 02: S-1-D6J             .00      .000 No_date     0:00      .00  n/a      .000
09857>                          +     1.0 02: S-1-D6N           1. 75      .232 No_date    27:53    57. 55  n/a      .000
09858>                     SUM=       1.0 01: S-1-D6S           1. 75      .232 No_date    27:53    57. 55  n/a      .000
09859> R0025: C00206-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09860>       ROUTE RESERVOIR -> .     1.0 02: S-1-D6S           1. 75      .232 No_date    27:53    57. 55  n/a      .000
09861>                      out <=    1.0 01: S-1-D6R           2. 03      .018 No_date    29:12    57. 55  n/a      .000
09862>                overflow <=      1.0 03: S-1-D6Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09863>        {MsSt olked=. 6057E-01  m3,  Tot Orf Vol =. 0000E+00  m3,  N-Orf =     0,  Tot Dur Orf =     0. hrs}
09864> R0025: C00207-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09865>       CONTI NUOUS STANDHYD     1.0 01: S-1-D7            2. 03      .369 No_date    28:00    57. 38  .771      .000
09866>          [ XI MP= .65:  TI MP= .65]
09867>          [ LOSS= 2 :  CN= 75. 0]
09868>          [ Pervious      area:  I Aper= 4. 67:  SLPP=2. 00:  LGP=   40. :  MNP=. 250:  SCP=    .0]
09869>          [ Impervious    area:  I Aimp= 1. 57:  SLPI =. 75:  LGI =  116. :  MNI =. 013:  SCI =    .0]
09870>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
09871>          [ SMN= 33. 81:  SMAX=225. 43:  SK=  .010]
09872> R0025: C00208-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09873>       COMPUTE DUALHYD          1.0 01: S-1-D7            2. 03      .369 No_date    28:00    57. 38  n/a      .000
09874>          Major System    /     1.0 02: S-1-D7J             .00      .000 No_date     0:00      .00  n/a      .000
09875>          Minor System    \     1.0 03: S-1-D7N           2. 03      .265 No_date    27:53    57. 80  n/a      .000
09876>          [ MjSysSto=. 4131E+02,  Tot Orf Vol =. 0000E+00,  N-Orf =     0,  Tot Dur Orf =     0. hrs]
09877> R0025: C00209-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09878>       ADD HYD                  1.0 02: S-1-D7J             .00      .000 No_date     0:00      .00  n/a      .000
09879>                          +     1.0 02: S-1-D7N           2. 03      .265 No_date    27:53    57. 80  n/a      .000
09880>                     SUM=       1.0 01: S-1-D7S           2. 03      .265 No_date    27:53    57. 80  n/a      .000
09881> R0025: C00210-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09882>       ROUTE RESERVOIR -> .     1.0 02: S-1-D7S           2. 03      .265 No_date    27:53    57. 80  n/a      .000
09883>                      out <=    1.0 01: S-1-D7R           2. 03      .021 No_date    29:11    57. 80  n/a      .000
09884>                overflow <=      1.0 03: S-1-D7Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09885>        {MsSt olked=. 7068E-01  m3,  Tot Orf Vol =. 0000E+00  m3,  N-Orf =     0,  Tot Dur Orf =     0. hrs}
09886> #    Catchment W_CLAR
09887> #    - To West Clarke Drain (south of the Jock)
09888> #    - Subdivision with 43% imp. as per Barrhaven South MSS
09889> #    - 2020-11-30 update CLARKE Tributary Drainage Area to  = 121 ha based on P598(04)-11
09890> #    - 2020-11-30 split CLARKE Drainage Area to MAJOR and ALL
09891> #*************************************************************************
09892> R0025: C00211-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09893>       CONTI NUOUS STANDHYD     1.0 01: W_CLAR_MI         1. 77      .279 No_date    28:00    52. 78  .709      .000
09894>          [ XI MP= .46:  TI MP= .59]
09895>          [ LOSS= 2 :  CN= 77. 0]
09896>          [ Pervious      area:  I Aper= 4. 67:  SLPP=1. 00:  LGP=   40. :  MNP=. 250:  SCP=    .0]
09897>          [ Impervious    area:  I Aimp= 1. 57:  SLPI =1. 00:  LGI =  109. :  MNI =. 013:  SCI =    .0]
09898>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
09899>          [ SMN= 31. 15:  SMAX=207. 66:  SK=  .010]
09900> # 5- Year + 12% Capture
09901> R0025: C00212-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09902>       ROUTE RESERVOIR -> .     1.0 02: W_CLAR_MI         1. 77      .279 No_date    28:00    52. 78  n/a      .000
09903>                      out <=    1.0 01: W_CLAR_Mn         1. 73      .213 No_date    27:54    52. 78  n/a      .000
09904>                overflow <=      1.0 03: W_CLAR_Mj          .04      .062 No_date    28:01    52. 78  n/a      .000
09905>        {MsSt olked=. 1173E-03  m3,  Tot Orf Vol =. 2205E-02  m3,  N-Orf =     1,  Tot Dur Orf =     0. hrs}
09906> R0025: C00213-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09907>       CONTI NUOUS STANDHYD     1.0 01: W_CLAR_ALL       119. 40    15. 305 No_date    28:04    56. 82  .764      .000
09908>          [ XI MP= .60:  TI MP= .65]
09909>          [ LOSS= 2 :  CN= 77. 0]
09910>          [ Pervious      area:  I Aper= 4. 67:  SLPP=1. 00:  LGP=   40. :  MNP=. 250:  SCP=    .0]
09911>          [ Impervious    area:  I Aimp= 1. 57:  SLPI =1. 00:  LGI =  892. :  MNI =. 013:  SCI =    .0]
09912>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
09913>          [ SMN= 31. 15:  SMAX=207. 66:  SK=  .010]
09914> R0025: C00214-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09915>       ADD HYD                  1.0 02: W_CLAR_ALL       119. 40    15. 305 No_date    28:04    56. 82  n/a      .000
09916>                          +     1.0 02: W_CLAR_Mj           .04      .062 No_date    28:01    52. 78  n/a      .000
09917>                     SUM=       1.0 01: W_CLAR           119. 44    15. 305 No_date    28:04    56. 81  n/a      .000
09918> R0025: C00215-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09919>       SAVE HYD                 1.0 01: W_CLAR           119. 44    15. 305 No_date    28:04    56. 81  n/a      .000
09920>          fname : W_CLAR 0025
09921>          remark: Total Flows to West Clarke
09922> #*************************************************************************
09923> #    West Clarke Pond 2
09924> #    - Rating curve obtained from Barrhaven South MSS modeling
09925> #    - Tributary Drainage Area to MSS Pond 2 = 241 ha
09926> #*************************************************************************
09927> R0025: C00216-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09928>       ROUTE RESERVOIR -> .     1.0 02: W_CLAR           119. 44    15. 305 No_date    28:04    56. 81  n/a      .000
09929>                      out <=    1.0 01: MS_ P2           119. 44     7. 398 No_date    28:20    56. 81  n/a      .000
09930>                overflow <=      1.0 03: P2- OVF             .00      .000 No_date     0:00      .00  n/a      .000
09931>        {MsSt olked=. 2962E+01  m3,  Tot Orf Vol =. 0000E+00  m3,  N-Orf =     0,  Tot Dur Orf =     0. hrs}
09932> #*************************************************************************
09933> R0025: C00217-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09934>       ADD HYD                  1.0 02: N_CE          54118. 36  114. 014 No_date    33:32    28. 94  n/a      .000
09935>                          +     1.0 02: S-1-D4R           3. 28      .034 No_date    29:13    57. 71  n/a      .000
09936>                          +     1.0 02: S-1-D5R          12. 84      .133 No_date    29:19    57. 52  n/a      .000
09937>                          +     1.0 02: S-1-D4Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09938>                          +     1.0 02: S-1-D5Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09939>                          +     1.0 02: MS_ P2           119. 44     7. 398 No_date    28:20    56. 81  n/a      .000
09940>                          +     1.0 02: P2- OVF             .00      .000 No_date     0:00      .00  n/a      .000
09941>                     SUM=       1.0 01: SN_CE         54253. 92  114. 982 No_date    33:32    29. 01  n/a      .000
09942> R0025: C00218-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09943>       SAVE HYD                 1.0 01: SN_CE         54253. 92  114. 982 No_date    33:32    29. 01  n/a      .000
09944>          fname : SN_CE 0025
09945>          remark: Total Flows before Station 5737 on Jock River
09946> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5737
09947> # 2021-02-25 add station 5737 before station 5002. Station 5737 was extracted from the HEC-RAS model T:\PROJ\1474-16\Des
09948> # JFSA 2021-03-02  change the slope to 0.0175% instead of 0.02593 to stabilize the model
09949> R0025: C00219-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09950>       ROUTE CHANNEL -> .       1.0 02: SN_CE         54253. 92  114. 982 No_date    33:32    29. 01  n/a      .000
09951> *     [ RDT= 1. 00]  out <-    1.0 01: S737              54253. 92  108. 094 No_date    36:08    29. 01  n/a      .000
09952>          [ L/ S/ n=  270. /  .018/ . 035]
09953>          [ Vmax=  .784:  Dmax= 4. 985]
09954> R0025: C00220-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09955>       ADD HYD                  1.0 02: S737              54253. 92  108. 094 No_date    36:08    29. 01  n/a      .000
09956>                          +     1.0 02: S-1-D1R          21. 67      .225 No_date    29:22    57. 58  n/a      .000
09957>                          +     1.0 02: S-1-D6R           1. 75      .018 No_date    29:12    57. 55  n/a      .000
09958>                          +     1.0 02: S-1-D7R           2. 03      .021 No_date    29:11    57. 80  n/a      .000
09959>                          +     1.0 02: S-1-D1Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09960>                          +     1.0 02: S-1-D6Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09961>                          +     1.0 02: S-1-D7Rovf          .00      .000 No_date     0:00      .00  n/a      .000
09962>                     SUM=       1.0 01: S_CE          54279. 37  108. 278 No_date    36:07    29. 03  n/a      .000
09963> R0025: C00221-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09964>       SAVE HYD                 1.0 01: 5002              54279. 37  108. 278 No_date    36:07    29. 03  n/a      .000
09965>          fname : 5002. 0025
09966>          remark: Total Flows before Station 5002 on Jock River
09967> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
09968> # Channel X-Section obtained from RVCA Hydraulic Model - Station 5002
09969> # JFSA 2021-02-19 Change the slope from 0.01 % (as per Stantec Report 2007) to 0.0255 % so the model will be more stable
09970> # JFSA 2021-02-19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
09971> # JFSA 2021-02-26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
09972> R0025: C00222-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09973>       ROUTE CHANNEL -> .       1.0 02: 5002              54279. 37  108. 278 No_date    36:07    29. 03  n/a      .000
09974> *     [ RDT= 1. 00]  out <-    1.0 01: N_WCa             54279. 37  108. 230 No_date    36:18    29. 03  n/a      .000
09975>          [ L/ S/ n=  245. /  .095/ . 035]
09976>          [ Vmax= 1. 212:  Dmax= 2. 784]
09977> R0025: C00223-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09978>       ROUTE CHANNEL -> .       1.0 02: N_WCa             54279. 37  108. 230 No_date    36:18    29. 03  n/a      .000
09979> *     [ RDT= 1. 00]  out <-    1.0 01: N_WCb             54279. 37  108. 213 No_date    36:26    29. 03  n/a      .000
09980>          [ L/ S/ n=  245. /  .095/ . 035]
09981>          [ Vmax= 1. 212:  Dmax= 2. 783]
09982> R0025: C00224-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09983>       ROUTE CHANNEL -> .       1.0 02: N_WCb             54279. 37  108. 213 No_date    36:26    29. 03  n/a      .000
09984> *     [ RDT= 1. 00]  out <-    1.0 01: N_WC              54279. 37  108. 189 No_date    36:34    29. 03  n/a      .000
09985>          [ L/ S/ n=  245. /  .095/ . 035]
09986>          [ Vmax= 1. 212:  Dmax= 2. 783]
09987> #*************************************************************************
09988> # Hydrograph from Node West Clarke Drain routed to Node at Kennedy - Burnett Drain
09989> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4534
09990> #
09991> R0025: C00225-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
09992>       ROUTE CHANNEL -> .       1.0 02: N_WC              54279. 37  108. 189 No_date    36:34    29. 03  n/a      .000
09993> *     [ RDT= 1. 00]  out <-    1.0 01: N_KB              54279. 37  103. 026 No_date    38:57    29. 03  n/a      .000
09994>          [ L/ S/ n=  1020. /  .050/ . 035]
09995>          [ Vmax= 1. 074:  Dmax= 3. 491]
09996> #*************************************************************************
09997> #    Catchment KEN_BU
09998> #    - To Kennedy-Burnett SWM Facility
09999> #    - Outlets to Fraser-Clarke drain (north of the Jock)
10000> #    - Medium density residential subdivision
10001> #*************************************************************************
10002> #*************************************************************************
10003> #    - Existing Kennedy-Burnett - SWM Facility
10004> #    - Rating curve obtained from URTKHP
10005> #    - Tributary Drainage Area to Pond = 160 ha
10006> #*************************************************************************
10007> R0025: C00226-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
10008>       CONTI NUOUS STANDHYD     1.0 01: KB- 01A           40. 82     4. 186 No_date    28:11    29. 35  .395      .000
10009>          [ XI MP= .10:  TI MP= .40]
10010>          [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  .00]
10011>          [ Pervious      area:  I Aper= 4. 67:  SLPP=  .50:  LGP=   40. :  MNP=. 250:  SCP=    .0]
10012>          [ Impervious    area:  I Aimp=  .79:  SLPI =  .50:  LGI =  522. :  MNI =. 013:  SCI =    .0]
10013>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
10014> R0025: C00227-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
10015>       COMPUTE DUALHYD          1.0 01: KB- 01A           40. 82     4. 186 No_date    28:11    29. 35  n/a      .000
10016>          Major System    /     1.0 02: KB- 01A- MI         .00      .000 No_date     0:00      .00  n/a      .000
10017>          Minor System    \     1.0 03: KB- 01A- MN       40. 82     3. 600 No_date    28:03    29. 50  n/a      .000
10018>          [ MjSysSto=. 3786E+03,  Tot Orf Vol =. 0000E+00,  N-Orf =     0,  Tot Dur Orf =     0. hrs]
10019> R0025: C00228-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
10020>       ADD HYD                  1.0 02: KB- 01A- MI         .00      .000 No_date     0:00      .00  n/a      .000
10021>                          +     1.0 02: KB- 01A- MN       40. 82     3. 600 No_date    28:03    29. 50  n/a      .000
10022>                     SUM=       1.0 01: KB- 01A- S        40. 82     3. 600 No_date    28:03    29. 50  n/a      .000
10023> R0025: C00229-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
10024>       CONTI NUOUS STANDHYD     1.0 01: KB- 01B           31. 10     3. 068 No_date    28:07    32. 30  .434      .000
10025>          [ XI MP= .19:  TI MP= .38]
10026>          [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  .00]
10027>          [ Pervious      area:  I Aper= 4. 67:  SLPP=  .42:  LGP=   40. :  MNP=. 250:  SCP=    .0]
10028>          [ Impervious    area:  I Aimp=  .79:  SLPI =  .42:  LGI =  455. :  MNI =. 013:  SCI =    .0]
10029>          [ I aREC i mp=   4. 00:  I aREC per=   4. 00]
10030> R0025: C00230-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
10031>       COMPUTE DUALHYD          1.0 01: KB- 01B           31. 10     3. 068 No_date    28:07    32. 30  n/a      .000
10032>          Major System    /     1.0 02: KB- 01B- MI         .00      .000 No_date     0:00      .00  n/a      .000
10033>          Minor System    \     1.0 03: KB- 01B- MN       31. 10     1. 585 No_date    27:55    32. 52  n/a      .000
10034>          [ MjSysSto=. 1849E+04,  Tot Orf Vol =. 0000E+00,  N-Orf =     0,  Tot Dur Orf =     0. hrs]
10035> R0025: C00231-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
10036>       ADD HYD                  1.0 02: KB- 01B- MI         .00      .000 No_date     0:00      .00  n/a      .000
10037>                          +     1.0 02: KB- 01B- MN       31. 10     1. 585 No_date    27:55    32. 52  n/a      .000
10038>                     SUM=       1.0 01: KB- 01B- S        31. 10     1. 585 No_date    27:55    32. 52  n/a      .000
10039> R0025: C00232-------------DTmin-1 D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mn- - - - RVmm R. C. - - - DWFcms
10040>       CONTI NUOUS STANDHYD     1.0 01: KB- 01C           13. 78     1. 868 No_date    28:04    33. 51  .450      .000
10041>          [ XI MP= .20:  TI MP= .41]
10042>          [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY=4. 14:    F=  .00]
10043>          [ Pervious      area:  I Aper= 4. 67:  SLPP=2. 00:  LGP=   40. :  MNP=. 250
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10099>          [Impervious    area: IAmp=   .94: SLPI=4.75: LGI= 294.: MNI=.013: SCI=    .0]
10100>          [IaREGmp=    4.00: IaREPer=    4.00]
10101> R0025: C00243-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10102>      COMPUTE DUALHYD          1.0 01: KB-06          12.93      2.960 No_date    28:00    66.54  n/a      .000
10103>        Major System    /      1.0 02: KB-06-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10104>        Minor System    \      1.0 03: KB-06-MN        12.93      2.262 No_date    28:07    66.58  n/a      .000
10105>        {MjSysSto=.2613E+03,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10106> R0025: C00244-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10107>      ADD HYD                  1.0 02: KB-06-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10108>                         +     1.0 02: KB-06-MN        12.93      2.262 No_date    28:07    66.58  n/a      .000
10109>                         SUM=  1.0 01: KB-06-S         12.93      2.262 No_date    28:07    66.58  n/a      .000
10110> R0025: C00245-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10111>      CONTINUOUS STANDHYD      1.0 01: KB-11          4.03       .817 No_date    28:00    55.88  .751      .000
10112>          [XIMP=.68: TIMP=.68]
10113>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10114>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10115>          [Impervious    area: IAmp=  .79: SLPI=2.00: LGI= 164.: MNI=.013: SCI=    .0]
10116>          [IaREGmp=    4.00: IaREPer=    4.00]
10117> R0025: C00246-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10118>      COMPUTE DUALHYD          1.0 01: KB-11          4.03       .817 No_date    28:00    55.88  n/a      .000
10119>        Major System    /      1.0 02: KB-11-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10120>        Minor System    \      1.0 03: KB-11-MN        4.03       .577 No_date    27:53    55.96  n/a      .000
10121>        {MjSysSto=.9558E+02,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10122> R0025: C00247-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10123>      ADD HYD                  1.0 02: KB-11-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10124>                         +     1.0 02: KB-11-MN        4.03       .577 No_date    27:53    55.96  n/a      .000
10125>                         SUM=  1.0 01: KB-11-S         4.03       .577 No_date    27:53    55.96  n/a      .000
10126> R0025: C00248-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10127>      CONTINUOUS STANDHYD      1.0 01: SI             4.99      1.184 No_date    28:00    69.06  .928      .000
10128>          [XIMP=.93: TIMP=.93]
10129>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10130>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10131>          [Impervious    area: IAmp=  1.57: SLPI=2.00: LGI= 182.: MNI=.013: SCI=    .0]
10132>          [IaREGmp=    4.00: IaREPer=    4.00]
10133> R0025: C00249-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10134>      CONTINUOUS STANDHYD      1.0 01: KB-15          2.15       .447 No_date    28:00    62.65  .842      .000
10135>          [XIMP=.79: TIMP=.79]
10136>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10137>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10138>          [Impervious    area: IAmp=  .16: SLPI=  .30: LGI= 120.: MNI=.013: SCI=    .0]
10139>          [IaREGmp=    4.00: IaREPer=    4.00]
10140> R0025: C00250-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10141>      ADD HYD                  1.0 02: KB-01A-S         40.82      3.600 No_date    28:03    29.50  n/a      .000
10142>                         +     1.0 02: KB-01B-S         31.10      1.585 No_date    27:55    32.52  n/a      .000
10143>                         +     1.0 02: KB-01C-S         13.78      1.350 No_date    27:57    33.69  n/a      .000
10144>                         +     1.0 02: KB-03-S          84.78      5.270 No_date    27:56    33.21  n/a      .000
10145>                         +     1.0 02: KB-04-S           6.95       .503 No_date    27:45    65.54  n/a      .000
10146>                         +     1.0 02: KB-05             5.19      1.147 No_date    28:00    69.06  n/a      .000
10147>                         +     1.0 02: KB-06-S          12.93      2.262 No_date    28:07    66.58  n/a      .000
10148>                         +     1.0 02: KB-11-S           4.03       .577 No_date    27:53    55.96  n/a      .000
10149>                         +     1.0 02: KB-15             2.15       .447 No_date    28:00    62.65  n/a      .000
10150>                         +     1.0 02: SI                4.99      1.184 No_date    28:00    69.06  n/a      .000
10151>                         SUM=  1.0 01: KB-P1           206.72     17.555 No_date    28:01    38.09  n/a      .000
10152> R0025: C00251-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10153>      ROUTE RESERVOIR -->      1.0 02: KB-P1          206.72     17.555 No_date    28:01    38.09  n/a      .000
10154>                         out <=  1.0 01: KB-P1R        201.26     12.438 No_date    28:05    38.09  n/a      .000
10155>                         overflow<=  1.0 03: KB-P1ovf    5.46      4.400 No_date    28:05    38.09  n/a      .000
10156>        {MaxStoUsed=.7322E+00   m3,  Tot Or Vol=.2079E+00   m3,  N-Or f=     1,  Tot Dur Or f=    0. hrs}
10157> R0025: C00252-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10158>      ADD HYD                  1.0 02: KB-P1R         201.26     12.438 No_date    28:05    38.09  n/a      .000
10159>                         +     1.0 02: KB-P1ovf         5.46      4.400 No_date    28:05    38.09  n/a      .000
10160>                         SUM=  1.0 01: KB-Pond1        206.72     16.838 No_date    28:05    38.09  n/a      .000
10161> R0025: C00253-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10162>      SAVE HYD                 1.0 01: KB-Pond1       206.72     16.838 No_date    28:05    38.09  n/a      .000
10163>          fname: KB-Pond1.0025
10164>          remark: Total Flows at KB first pond
10165> R0025: C00254-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10166>      CONTINUOUS STANDHYD      1.0 01: KB-07          10.86      2.392 No_date    28:00    65.97  .887      .000
10167>          [XIMP=.86: TIMP=.86]
10168>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10169>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10170>          [Impervious    area: IAmp=  .79: SLPI=2.00: LGI= 269.: MNI=.013: SCI=    .0]
10171>          [IaREGmp=    4.00: IaREPer=    4.00]
10172> R0025: C00255-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10173>      COMPUTE DUALHYD          1.0 01: KB-07          10.86      2.392 No_date    28:00    65.97  n/a      .000
10174>        Major System    /      1.0 02: KB-07-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10175>        Minor System    \      1.0 03: KB-07-MN        10.86      2.094 No_date    27:56    66.02  n/a      .000
10176>        {MjSysSto=.7523E+02,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10177> R0025: C00256-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10178>      ADD HYD                  1.0 02: KB-07-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10179>                         +     1.0 02: KB-07-MN        10.86      2.094 No_date    27:56    66.02  n/a      .000
10180>                         SUM=  1.0 01: KB-07-S         10.86      2.094 No_date    27:56    66.02  n/a      .000
10181> R0025: C00257-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10182>      CONTINUOUS STANDHYD      1.0 01: KB-08          6.61      1.292 No_date    28:00    53.97  .726      .000
10183>          [XIMP=.64: TIMP=.64]
10184>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10185>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10186>          [Impervious    area: IAmp=  .79: SLPI=2.00: LGI= 210.: MNI=.013: SCI=    .0]
10187>          [IaREGmp=    4.00: IaREPer=    4.00]
10188> R0025: C00258-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10189>      COMPUTE DUALHYD          1.0 01: KB-08          6.61      1.292 No_date    28:00    53.97  n/a      .000
10190>        Major System    /      1.0 02: KB-08-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10191>        Minor System    \      1.0 03: KB-08-MN        6.61      1.058 No_date    27:55    54.34  n/a      .000
10192>        {MjSysSto=.6817E+02,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10193> R0025: C00259-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10194>      ADD HYD                  1.0 02: KB-08-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10195>                         +     1.0 02: KB-08-MN        6.61      1.058 No_date    27:55    54.34  n/a      .000
10196>                         SUM=  1.0 01: KB-08-S         6.61      1.058 No_date    27:55    54.34  n/a      .000
10197> R0025: C00260-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10198>      CONTINUOUS STANDHYD      1.0 01: KB-09          2.60       .599 No_date    28:00    65.30  .878      .000
10199>          [XIMP=.86: TIMP=.86]
10200>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10201>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10202>          [Impervious    area: IAmp=  1.57: SLPI=2.00: LGI= 132.: MNI=.013: SCI=    .0]
10203>          [IaREGmp=    4.00: IaREPer=    4.00]
10204> R0025: C00261-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10205>      CONTINUOUS STANDHYD      1.0 01: KB-10_1        2.37       .550 No_date    28:00    65.30  .878      .000
10206>          [XIMP=.86: TIMP=.86]
10207>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10208>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10209>          [Impervious    area: IAmp=  1.57: SLPI=2.00: LGI= 126.: MNI=.013: SCI=    .0]
10210>          [IaREGmp=    4.00: IaREPer=    4.00]
10211> R0025: C00262-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10212>      CONTINUOUS STANDHYD      1.0 01: KB-10_2        1.14       .266 No_date    28:00    65.30  .878      .000
10213>          [XIMP=.86: TIMP=.86]
10214>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10215>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10216>          [Impervious    area: IAmp=  1.57: SLPI=2.00: LGI=  87.: MNI=.013: SCI=    .0]
10217>          [IaREGmp=    4.00: IaREPer=    4.00]
10218> R0025: C00263-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10219>      CONTINUOUS STANDHYD      1.0 01: KB-12          4.86      1.059 No_date    28:00    61.90  .832      .000
10220>          [XIMP=.79: TIMP=.79]
10221>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10222>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10223>          [Impervious    area: IAmp=  1.10: SLPI=2.00: LGI= 180.: MNI=.013: SCI=    .0]
10224>          [IaREGmp=    4.00: IaREPer=    4.00]
10225> R0025: C00264-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10226>      COMPUTE DUALHYD          1.0 01: KB-12          4.86      1.059 No_date    28:00    61.90  n/a      .000
10227>        Major System    /      1.0 02: KB-12-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10228>        Minor System    \      1.0 03: KB-12-MN        4.86       .867 No_date    27:54    62.20  n/a      .000
10229>        {MjSysSto=.6022E+02,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10230> R0025: C00265-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10231>      ADD HYD                  1.0 02: KB-12-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10232>                         +     1.0 02: KB-12-MN        4.86       .867 No_date    27:54    62.20  n/a      .000
10233>                         SUM=  1.0 01: KB-12-S         4.86       .867 No_date    27:54    62.20  n/a      .000
10234> R0025: C00266-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10235>      CONTINUOUS STANDHYD      1.0 01: KB-13         10.19      1.930 No_date    28:00    53.97  .726      .000
10236>          [XIMP=.64: TIMP=.64]
10237>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10238>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10239>          [Impervious    area: IAmp=  .79: SLPI=2.00: LGI= 261.: MNI=.013: SCI=    .0]
10240>          [IaREGmp=    4.00: IaREPer=    4.00]
10241> R0025: C00267-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10242>      COMPUTE DUALHYD          1.0 01: KB-13         10.19      1.930 No_date    28:00    53.97  n/a      .000
10243>        Major System    /      1.0 02: KB-13-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10244>        Minor System    \      1.0 03: KB-13-MN       10.19      1.722 No_date    27:57    53.98  n/a      .000
10245>        {MjSysSto=.4703E+02,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10246> R0025: C00268-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10247>      ADD HYD                  1.0 02: KB-13-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10248>                         +     1.0 02: KB-13-MN       10.19      1.722 No_date    27:57    53.98  n/a      .000
10249>                         SUM=  1.0 01: KB-13-S        10.19      1.722 No_date    27:57    53.98  n/a      .000
10250> R0025: C00269-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10251>      CONTINUOUS STANDHYD      1.0 01: KB-14          5.47      1.075 No_date    28:00    53.97  .726      .000
10252>          [XIMP=.64: TIMP=.64]
10253>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10254>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10255>          [Impervious    area: IAmp=  .79: SLPI=2.00: LGI= 191.: MNI=.013: SCI=    .0]
10256>          [IaREGmp=    4.00: IaREPer=    4.00]
10257> R0025: C00270-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10258>      COMPUTE DUALHYD          1.0 01: KB-14          5.47      1.075 No_date    28:00    53.97  n/a      .000
10259>        Major System    /      1.0 02: KB-14-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10260>        Minor System    \      1.0 03: KB-14-MN        5.47       .873 No_date    27:55    54.32  n/a      .000
10261>        {MjSysSto=.6018E+02,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10262> R0025: C00271-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10263>      ADD HYD                  1.0 02: KB-14-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10264>                         +     1.0 02: KB-14-MN        5.47       .873 No_date    27:55    54.32  n/a      .000
10265>                         SUM=  1.0 01: KB-14-S         5.47       .873 No_date    27:55    54.32  n/a      .000
10266> R0025: C00272-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10267>      CONTINUOUS STANDHYD      1.0 01: KB-16_2        3.42       .649 No_date    28:01    58.24  .783      .000
10268>          [XIMP=.71: TIMP=.71]
10269>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10270>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10271>          [Impervious    area: IAmp=  .16: SLPI=  .30: LGI= 151.: MNI=.013: SCI=    .0]
10272>          [IaREGmp=    4.00: IaREPer=    4.00]
10273> R0025: C00273-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10274>      ADD HYD                  1.0 02: KB-Pond1       206.72     16.838 No_date    28:05    38.09  n/a      .000
10275>                         +     1.0 02: KB-07-S          10.86      2.094 No_date    27:56    66.02  n/a      .000
10276>                         +     1.0 02: KB-08-S           6.61      1.058 No_date    27:55    54.34  n/a      .000
10277>                         +     1.0 02: KB-09             2.60       .599 No_date    28:00    65.30  n/a      .000
10278>                         +     1.0 02: KB-10_1           2.37       .550 No_date    28:00    65.30  n/a      .000
10279>                         +     1.0 02: KB-10_2           1.14       .266 No_date    28:00    65.30  n/a      .000
10280>                         +     1.0 02: KB-12-S           4.86       .867 No_date    27:54    62.20  n/a      .000
10281>                         +     1.0 02: KB-13-S          10.19      1.722 No_date    27:57    53.98  n/a      .000
10282>                         +     1.0 02: KB-14-S           5.47       .873 No_date    27:55    54.32  n/a      .000
10283>                         +     1.0 02: KB-16_2           3.42       .649 No_date    28:01    58.24  n/a      .000
10284>                         SUM=  1.0 01: KB-P2           254.24     24.423 No_date    28:05    42.08  n/a      .000
10285> R0025: C00274-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10286>      ROUTE RESERVOIR -->      1.0 02: KB-P2          254.24     24.423 No_date    28:05    42.08  n/a      .000
10287>                         out <=  1.0 01: KB-P2R        254.24     17.126 No_date    28:11    42.08  n/a      .000
10288>                         overflow<=  1.0 03: KB-P2ovf     .00       .000 No_date     0:00      .00  n/a      .000
10289>        {MaxStoUsed=.9755E+00   m3,  Tot Or Vol=  .0000E+00   m3,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10290> R0025: C00275-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10291>      ADD HYD                  1.0 02: KB-P2R         254.24     17.126 No_date    28:11    42.08  n/a      .000
10292>                         +     1.0 02: KB-P2ovf          .00       .000 No_date     0:00      .00  n/a      .000
10293>                         SUM=  1.0 01: KB-Pond2        254.24     17.126 No_date    28:11    42.08  n/a      .000
10294> R0025: C00276-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10295>      SAVE HYD                 1.0 01: KB-Pond2       254.24     17.126 No_date    28:11    42.08  n/a      .000
10296>          fname: KB-Pond2.0025
10297>          remark: Total Flows at KB second pond
10298> R0025: C00277-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10299>      CONTINUOUS STANDHYD      1.0 01: KB-16_1        2.80       .551 No_date    28:01    60.44  .812      .000
10300>          [XIMP=.75: TIMP=.75]
10301>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10302>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10303>          [Impervious    area: IAmp=  .16: SLPI=  .30: LGI= 137.: MNI=.013: SCI=    .0]
10304>          [IaREGmp=    4.00: IaREPer=    4.00]
10305> R0025: C00278-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10306>      ADD HYD                  1.0 02: KB-Pond2       254.24     17.126 No_date    28:11    42.08  n/a      .000
10307>                         +     1.0 02: KB-16_1           2.80       .551 No_date    28:01    60.44  n/a      .000
10308>                         SUM=  1.0 01: KB-P3           257.04     17.347 No_date    28:10    42.28  n/a      .000
10309> R0025: C00279-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10310>      ROUTE RESERVOIR -->      1.0 02: KB-P3          257.04     17.347 No_date    28:10    42.28  n/a      .000
10311>                         out <=  1.0 01: KB-P3R        10.42       .051 No_date    17:19    42.28  n/a      .000
10312>                         overflow<=  1.0 03: KB-P3ovf    246.62     17.293 No_date    28:10    42.28  n/a      .000
10313>        {MaxStoUsed=.1993E-02   m3,  Tot Or Vol=.1043E+02   m3,  N-Or f=     2,  Tot Dur Or f=   23. hrs}
10314> R0025: C00280-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10315>      ADD HYD                  1.0 02: KB-P3R         10.42       .051 No_date    17:19    42.28  n/a      .000
10316>                         +     1.0 02: KB-P3ovf       246.62     17.293 No_date    28:10    42.28  n/a      .000
10317>                         SUM=  1.0 01: KB-Pond3        257.04     17.344 No_date    28:10    42.28  n/a      .000
10318> R0025: C00281-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10319>      SAVE HYD                 1.0 01: KB-Pond3       257.04     17.344 No_date    28:10    42.28  n/a      .000
10320>          fname: KB-Pond3.0025
10321>          remark: Total Flows at KB third pond
10322> ********************************************************************************
10323> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report Ju
10324> #     - TO FRASER-CLARKE DRAIN
10325> ********************************************************************************
10326> R0025: C00282-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10327>      CONTINUOUS STANDHYD      1.0 01: FRASER-D       8.03      1.288 No_date    28:01    44.33  .596      .000
10328>          [XIMP=.47: TIMP=.47]
10329>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10330>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10331>          [Impervious    area: IAmp=  1.57: SLPI=1.00: LGI=  231.: MNI=.013: SCI=    .0]
10332>          [IaREGmp=    4.00: IaREPer=    4.00]
10333> R0025: C00283-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10334>      COMPUTE DUALHYD          1.0 01: FC-01          8.03      1.288 No_date    28:01    44.33  n/a      .000
10335>        Major System    /      1.0 02: FC-01-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10336>        Minor System    \      1.0 03: FC-01-MN        8.03       .756 No_date    27:53    44.53  n/a      .000
10337>        {MjSysSto=.2943E+03,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10338> R0025: C00284-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10339>      ADD HYD                  1.0 02: FC-01-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10340>                         +     1.0 02: FC-01-MN        8.03       .756 No_date    27:53    44.53  n/a      .000
10341>                         SUM=  1.0 01: FC-01-S         8.03       .756 No_date    27:53    44.53  n/a      .000
10342> R0025: C00285-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10343>      CONTINUOUS STANDHYD      1.0 01: FC-02         16.05      3.458 No_date    28:00    69.06  .928      .000
10344>          [XIMP=.93: TIMP=.93]
10345>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10346>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10347>          [Impervious    area: IAmp=  1.57: SLPI=1.00: LGI= 327.: MNI=.013: SCI=    .0]
10348>          [IaREGmp=    4.00: IaREPer=    4.00]
10349> R0025: C00286-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10350>      COMPUTE DUALHYD          1.0 01: FC-02         16.05      3.458 No_date    28:00    69.06  n/a      .000
10351>        Major System    /      1.0 02: FC-02-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10352>        Minor System    \      1.0 03: FC-02-MN       16.05      1.159 No_date    27:44    69.13  n/a      .000
10353>        {MjSysSto=.1941E+04,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10354> R0025: C00287-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10355>      ADD HYD                  1.0 02: FC-02-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10356>                         +     1.0 02: FC-02-MN       16.05      1.159 No_date    27:44    69.13  n/a      .000
10357>                         SUM=  1.0 01: FC-02-S        16.05      1.159 No_date    27:44    69.13  n/a      .000
10358> R0025: C00288-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10359>      CONTINUOUS STANDHYD      1.0 01: FC-03          7.37      1.375 No_date    28:00    53.47  .719      .000
10360>          [XIMP=.64: TIMP=.64]
10361>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10362>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10363>          [Impervious    area: IAmp=  1.57: SLPI=1.00: LGI=  222.: MNI=.013: SCI=    .0]
10364>          [IaREGmp=    4.00: IaREPer=    4.00]
10365> R0025: C00289-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10366>      COMPUTE DUALHYD          1.0 01: FC-03          7.37      1.375 No_date    28:00    53.47  n/a      .000
10367>        Major System    /      1.0 02: FC-03-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10368>        Minor System    \      1.0 03: FC-03-MN        7.37       .358 No_date    27:43    53.66  n/a      .000
10369>        {MjSysSto=.9407E+03,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10370> R0025: C00290-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10371>      ADD HYD                  1.0 02: FC-03-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10372>                         +     1.0 02: FC-03-MN        7.37       .358 No_date    27:43    53.66  n/a      .000
10373>                         SUM=  1.0 01: FC-03-S         7.37       .358 No_date    27:43    53.66  n/a      .000
10374> R0025: C00291-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10375>      CONTINUOUS STANDHYD      1.0 01: FC-04         12.87      2.308 No_date    28:01    53.47  .719      .000
10376>          [XIMP=.64: TIMP=.64]
10377>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10378>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10379>          [Impervious    area: IAmp=  1.57: SLPI=1.00: LGI= 293.: MNI=.013: SCI=    .0]
10380>          [IaREGmp=    4.00: IaREPer=    4.00]
10381> R0025: C00292-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10382>      COMPUTE DUALHYD          1.0 01: FC-04         12.87      2.308 No_date    28:01    53.47  n/a      .000
10383>        Major System    /      1.0 02: FC-04-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10384>        Minor System    \      1.0 03: FC-04-MN       12.87       .741 No_date    27:45    53.74  n/a      .000
10385>        {MjSysSto=.1387E+04,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10386> R0025: C00293-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10387>      ADD HYD                  1.0 02: FC-04-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10388>                         +     1.0 02: FC-04-MN       12.87       .741 No_date    27:45    53.74  n/a      .000
10389>                         SUM=  1.0 01: FC-04-S        12.87       .741 No_date    27:45    53.74  n/a      .000
10390> ********************************************************************************
10391> #     PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWM Modeling Approach, NOVATECH Report June, 2020)
10392> #     - TO DOCK RIVER
10393> ********************************************************************************
10394> R0025: C00294-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10395>      CONTINUOUS STANDHYD      1.0 01: JR-01          8.24      1.515 No_date    28:00    53.47  .719      .000
10396>          [XIMP=.64: TIMP=.64]
10397>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10398>          [Pervious      area: IAper= 4.67: SLPP=2.00: LGP=  40.: MNP=.250: SCP=    .0]
10399>          [Impervious    area: IAmp=  1.57: SLPI=1.00: LGI= 234.: MNI=.013: SCI=    .0]
10400>          [IaREGmp=    4.00: IaREPer=    4.00]
10401> R0025: C00295-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10402>      COMPUTE DUALHYD          1.0 01: JR-01          8.24      1.515 No_date    28:00    53.47  n/a      .000
10403>        Major System    /      1.0 02: JR-01-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10404>        Minor System    \      1.0 03: JR-01-MN        8.24       .563 No_date    28:50    53.74  n/a      .000
10405>        {MjSysSto=.7433E+03,  Tot Or Vol=  .0000E+00,  N-Or f=     0,  Tot Dur Or f=    0. hrs}
10406> R0025: C00296-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10407>      ADD HYD                  1.0 02: JR-01-MJ          .00       .000 No_date     0:00      .00  n/a      .000
10408>                         +     1.0 02: JR-01-MN        8.24       .563 No_date    27:45    53.74  n/a      .000
10409>                         SUM=  1.0 01: JR-01-S         8.24       .563 No_date    27:45    53.74  n/a      .000
10410> R0025: C00297-------------DTmin-1D: NHYD--------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
10411>      CONTINUOUS STANDHYD      1.0 01: JR-02          1.59       .316 No_date    28:00    53.47  .719      .000
10412>          [XIMP=.64: TIMP=.64]
10413>          [Horton parameters: Fo=  76.20: Fc=  13.20: DCAY=4.14:   F=  .00]
10414>          [Pervious      area: IAper= 4.67: SLPP=2.
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10473>       ROUTE CHANNEL    ->          1. 0 02: 4241          54658.48   103.518 No_date    38:57    29.12  n/a      .000
10474> *     [RDT= 1. 00] out <-          1. 0 01: 4241- out     54658.48   103.664 No_date    38:36    29.12  n/a      .000
10475>        [L/ S/ n=  294. /  . 109/ . 035]
10476>        [Vmax= 1. 253: Dmax= 2. 209]
10477> R0025: C00307- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10478>       ADD HYD                      1. 0 02: 4241- out     54658.48   103.664 No_date    38:36    29.12  n/a      .000
10479>                              +     1. 0 02: FC- 04- S        12.87     . 741 No_date    27:45    53.74  n/a      .000
10480>                              +     1. 0 02: JR- 01- S         8.24     . 563 No_date    27:45    53.74  n/a      .000
10481>                              +     1. 0 02: JR- 02- S         1.59     . 153 No_date    27:47    53.69  n/a      .000
10482>                              SUM=  1. 0 01: SN_ KB       54681.18   103.700 No_date    38:36    29.13  n/a      .000
10483> R0025: C00308- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10484>       SAVE HYD                     1. 0 01: SN_ KB       54681.18   103.700 No_date    38:36    29.13  n/a      .000
10485>        fname : SN_ KB. 0025
10486>        remark: Total Flows before Station 3633
10487> # Hydrograph from Station 3633 to Node Todd
10488> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
10489> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0. 0498% to 0. 2
10490> #
10491> R0025: C00309- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10492>       ROUTE CHANNEL    ->          1. 0 02: SN_ KB       54681.18   103.700 No_date    38:36    29.13  n/a      .000
10493>        [RDT= 1. 00] out <-          1. 0 01: N_ TO        54681.18   103.546 No_date    39:00    29.13  n/a      .000
10494>        [L/ S/ n=  608. /  . 247/ . 035]
10495>        [Vmax= 1. 675: Dmax= 1. 657]
10496> ##########################################################################
10497> #    Catchment Greenbank
10498> #    - To Greenbank Drain (south of the Jock)
10499> #    - JFSA 2021-01-19 add Greenbank pond as per JFSA, P598(06)-15, June 2016
10500> #    - JFSA 2021-01-19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
10501> ##########################################################################
10502> R0025: C00310- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10503>       CONTI NUOUS STANDHYD         1. 0 01: Greenbank      36. 60     5. 574 No_date    28:02    58. 33  n/a      .000
10504>        [ XI M= 64: TI M= 68]
10505>        [ LOSS= 2 : CN= 77. 0]
10506>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10507>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 494. : MNI= 0. 013: SCI=    .0]
10508>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10509>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
10510> R0025: C00311- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10511>       ROUTE RESERVOIR  ->          1. 0 02: Greenbank      36. 60     5. 574 No_date    28:02    58. 33  n/a      .000
10512>                        out <=      1. 0 01: GreenB_ MN     36. 60     3. 118 No_date    28:11    58. 33  n/a      .000
10513>                    overflow <=     1. 0 03: GreenB_ MI       .00      . 000 No_date    0: 00     .00  n/a      .000
10514>        [ MkSt ol ked= 8739E+00  m3,  Tot Ovf Vol = . 0000E+00  m3,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10515> R0025: C00312- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10516>       ADD HYD                      1. 0 02: N_ TO        54681.18   103.546 No_date    39:00    29.13  n/a      .000
10517>                              +     1. 0 02: GreenB_ MI       .00      . 000 No_date    0: 00     .00  n/a      .000
10518>                              +     1. 0 02: GreenB_ MN     36. 60     3. 118 No_date    28:11    58. 33  n/a      .000
10519>                              SUM=  1. 0 01: GreenB       54717. 78   103. 651 No_date    39:00    29. 15  n/a      .000
10520> R0025: C00313- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10521>       SAVE HYD                     1. 0 01: GreenB       54717. 78   103. 651 No_date    39:00    29. 15  n/a      .000
10522>        fname : GreenB. 0025
10523>        remark: Total Flows at Greenbank Drain
10524> ##########################################################################
10525> #    Catchment TODD
10526> #    - To Todd Drain (south of the Jock)
10527> #    - Subdivision with 43% imp. as per Barrhaven South MSS
10528> #    - 2020-11-30 increase imp. based on P598(04)-11
10529> #    - 2020-11-30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598(04)-11
10530> #    - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
10531> ##########################################################################
10532> #    - JFSA 2021-01-19 add "TODD_ MN1" as part of Clarke("W_ CLAR_ M") and remove it from Todd
10533> R0025: C00314- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10534>       CONTI NUOUS STANDHYD         1. 0 01: TODD_ MN2      2. 10      . 339 No_date    28:00    53. 59  . 720    .000
10535>        [ XI M= 53: TI M= 57]
10536>        [ LOSS= 2 : CN= 77. 0]
10537>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10538>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 118. : MNI= 0. 013: SCI=    .0]
10539>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10540>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
10541> R0025: C00315- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10542>       CONTI NUOUS STANDHYD         1. 0 01: TODD_ MN3       .12      . 020 No_date    28:00    53. 57  . 720    .000
10543>        [ XI M= 53: TI M= 57]
10544>        [ LOSS= 2 : CN= 77. 0]
10545>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10546>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI=  28. : MNI= 0. 013: SCI=    .0]
10547>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10548>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
10549> R0025: C00316- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10550>       CONTI NUOUS STANDHYD         1. 0 01: TODD_ MJ       30. 23     4. 269 No_date    28:02    55. 13  . 741    .000
10551>        [ XI M= 52: TI M= 64]
10552>        [ LOSS= 2 : CN= 77. 0]
10553>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10554>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 449. : MNI= 0. 013: SCI=    .0]
10555>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10556>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
10557> R0025: C00317- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10558>       CONTI NUOUS STANDHYD         1. 0 01: TODD_ ALL     112. 91    13. 312 No_date    28:05    53. 38  . 718    .000
10559>        [ XI M= 52: TI M= 57]
10560>        [ LOSS= 2 : CN= 77. 0]
10561>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10562>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 868. : MNI= 0. 013: SCI=    .0]
10563>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10564>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
10565> R0025: C00318- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10566>       CONTI NUOUS STANDHYD         1. 0 01: TODD_ P         3. 06      . 535 No_date    28:00    57. 01  . 766    .000
10567>        [ XI M= 63: TI M= 63]
10568>        [ LOSS= 2 : CN= 77. 0]
10569>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10570>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 143. : MNI= 0. 013: SCI=    .0]
10571>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10572>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
10573> # 5- Year + 12% Capture
10574> R0025: C00319- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10575>       ROUTE RESERVOIR  ->          1. 0 02: TODD_ MJ       30. 23     4. 269 No_date    28:02    55. 13  n/a      .000
10576>                        out <=      1. 0 01: TODD_ MJn      29. 48     3. 314 No_date    27:57    55. 13  n/a      .000
10577>                    overflow <=     1. 0 03: TODD_ MJj        .75      . 946 No_date    28:03    55. 13  n/a      .000
10578>        [ MkSt ol ked= 1175E- 03  m3,  Tot Ovf Vol = . 4153E- 01  m3,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
10579> # 5- Year + 12% Capture
10580> R0025: C00320- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10581>       ROUTE RESERVOIR  ->          1. 0 02: TODD_ MN2      2. 10      . 339 No_date    28:00    53. 59  n/a      .000
10582>                        out <=      1. 0 01: TODD_ MN2n     2. 06      . 268 No_date    27:54    53. 60  n/a      .000
10583>                    overflow <=     1. 0 03: TODD_ MN2j       .04      . 067 No_date    28:00    53. 59  n/a      .000
10584>        [ MkSt ol ked= . 8415E- 04  m3,  Tot Ovf Vol = . 2217E- 02  m3,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
10585> R0025: C00321- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10586>       ROUTE RESERVOIR  ->          1. 0 02: TODD_ MN3       .12      . 020 No_date    28:00    53. 58  n/a      .000
10587>                        out <=      1. 0 01: TODD_ MN3n      .11      . 016 No_date    27:53    53. 58  n/a      .000
10588>                    overflow <=     1. 0 03: TODD_ MN3j       .00      . 004 No_date    28:00    53. 58  n/a      .000
10589>        [ MkSt ol ked= . 1067E- 03  m3,  Tot Ovf Vol = . 1192E- 03  m3,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
10590> R0025: C00322- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10591>       CONTI NUOUS STANDHYD         1. 0 01: A2            25. 50     2. 974 No_date    28:03    49. 44  . 665    .000
10592>        [ XI M= 42: TI M= 52]
10593>        [ LOSS= 2 : CN= 75. 0]
10594>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10595>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 566. : MNI= 0. 013: SCI=    .0]
10596>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10597>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
10598> R0025: C00323- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10599>       COMPUTE DUALHYD              1. 0 01: A2            25. 50     2. 974 No_date    28:03    49. 44  n/a      .000
10600>        Major System    /          1. 0 02: A2- M          .00      . 000 No_date    0: 00     .00  n/a      .000
10601>        Minor System    \          1. 0 03: A2- MN        25. 50     1. 818 No_date    27:54    49. 64  n/a      .000
10602>        [ MjSys St o= . 8120E+03,  Tot Ovf Vol = . 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10603> R0025: C00324- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10604>       ADD HYD                      1. 0 02: TODD_ MN2n     2. 06      . 268 No_date    27:54    53. 60  n/a      .000
10605>                              +     1. 0 02: TODD_ MN3n      .11      . 016 No_date    27:53    53. 58  n/a      .000
10606>                              +     1. 0 02: TODD_ MJj        .75      . 946 No_date    28:03    55. 13  n/a      .000
10607>                              +     1. 0 02: TODD_ P         3. 06      . 535 No_date    28:00    57. 01  n/a      .000
10608>                              +     1. 0 02: TODD_ ALL     112. 91    13. 312 No_date    28:05    53. 38  n/a      .000
10609>                              +     1. 0 02: W_ CLAR_ MN      1. 73      . 213 No_date    27:54    52. 78  n/a      .000
10610>                              SUM=  1. 0 01: TODD         120. 62    14. 962 No_date    28:03    53. 48  n/a      .000
10611> R0025: C00325- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10612>       SAVE HYD                     1. 0 01: TODD         120. 62    14. 962 No_date    28:03    53. 48  n/a      .000
10613>        fname : TODD. 0025
10614>        remark: Total Flows at Todd Drain
10615> ##########################################################################
10616> #    Todd Pond 3
10617> #    - Rating curve obtained from Barrhaven South MSS modeling
10618> #    - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
10619> ##########################################################################
10620> R0025: C00326- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10621>       ROUTE RESERVOIR  ->          1. 0 01: TODD         120. 62    14. 962 No_date    28:03    53. 48  n/a      .000
10622>                        out <=      1. 0 01: MS_ P3         120. 62     9. 717 No_date    28:14    53. 48  n/a      .000
10623>                    overflow <=     1. 0 03: P3- OVF          .00      . 000 No_date    0: 00     .00  n/a      .000
10624>        [ MkSt ol ked= . 2619E+01  m3,  Tot Ovf Vol = . 0000E+00  m3,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10625> R0025: C00327- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10626>       ADD HYD                      1. 0 02: GreenB       54717. 78   103. 651 No_date    39:00    29. 15  n/a      .000
10627>                              +     1. 0 02: MS_ P3         120. 62     9. 717 No_date    28:14    53. 48  n/a      .000
10628>                              +     1. 0 02: P3- OVF          .00      . 000 No_date    0: 00     .00  n/a      .000
10629>                              +     1. 0 02: TODD_ MNj        .04      . 067 No_date    28:00    53. 59  n/a      .000
10630>                              +     1. 0 02: A2- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10631>                              SUM=  1. 0 01: SN_ TO        54838. 44   103. 908 No_date    39:00    29. 21  n/a      .000
10632> R0025: C00328- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10633>       SAVE HYD                     1. 0 01: SN_ TO        54838. 44   103. 908 No_date    39:00    29. 21  n/a      .000
10634>        fname : SN_ TO. 0025
10635>        remark: Total Flows at Todd Drain
10636> #
10637> # Hydrograph from Todd Drain routed to Corrigan Drain
10638> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
10639> # 2021-02-19 Change the slope from 0. 033 % (as per Stantec Report 2007) to 0. 05 % so the model will be more stable and g
10640> R0025: C00329- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10641>       ROUTE CHANNEL    ->          1. 0 02: SN_ TO        54838. 44   103. 908 No_date    39:00    29. 21  n/a      .000
10642> *     [RDT= 1. 00] out <-          1. 0 01: N_ TO         54838. 44   103. 688 No_date    39:23    29. 21  n/a      .000
10643>        [L/ S/ n=  280. /  . 050/ . 045]
10644>        [Vmax=  905: Dmax= 3. 151]
10645> R0025: C00330- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10646>       SAVE HYD                     1. 0 01: N_ TO         54838. 44   103. 688 No_date    39:23    29. 21  n/a      .000
10647>        fname : N_ TO. 0025
10648>        remark: Total inflows at Station 2462
10649> ##########################################################################
10650> #    Catchment CORRIG
10651> #    - To Corrigan Drain (south of the Jock)
10652> #    - Primarily Developed (medium density)
10653> #    - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
10654> ##########################################################################
10655> R0025: C00331- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10656>       CONTI NUOUS STANDHYD         1. 0 01: corr1         15. 87     2. 535 No_date    28:01    57. 01  . 766    .000
10657>        [ XI M= 63: TI M= 63]
10658>        [ LOSS= 2 : CN= 77. 0]
10659>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10660>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 325. : MNI= 0. 013: SCI=    .0]
10661>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10662>        [ SMN= 31. 15: SMX= 207. 66: SK= . 010]
10663> R0025: C00332- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10664>       COMPUTE DUALHYD              1. 0 01: corr1         15. 87     2. 535 No_date    28:01    57. 01  n/a      .000
10665>        Major System    /          1. 0 02: corr1- MI        .00      . 000 No_date    0: 00     .00  n/a      .000
10666>        Minor System    \          1. 0 03: corr1- MN      15. 87     1. 818 No_date    28:15    57. 37  n/a      .000
10667>        [ MjSys St o= . 3150E+03,  Tot Ovf Vol = . 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10668> R0025: C00333- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10669>       CONTI NUOUS NASHYD           1. 0 01: corr2         12. 47      . 276 No_date    29:10    34. 14  . 459    .000
10670>        [ CN= 77. 0: N= 3. 00: Tp= 1. 10]
10671>        [ IaREC= 4. 00: SMN= 31. 15: SMX= 207. 66: SK= . 010]
10672>        [ InterEventTime= 12. 00]
10673> R0025: C00334- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10674>       CONTI NUOUS STANDHYD         1. 0 01: Al- Corrig     15. 75     2. 022 No_date    28:01    49. 44  . 665    .000
10675>        [ XI M= 42: TI M= 52]
10676>        [ LOSS= 2 : CN= 75. 0]
10677>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10678>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 324. : MNI= 0. 013: SCI=    .0]
10679>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10680>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
10681> R0025: C00335- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10682>       COMPUTE DUALHYD              1. 0 01: Al- Corrig     15. 75     2. 022 No_date    28:01    49. 44  n/a      .000
10683>        Major System    /          1. 0 02: Al- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10684>        Minor System    \          1. 0 03: Al- MN         15. 75     1. 818 No_date    27:58    49. 57  n/a      .000
10685>        [ MjSys St o= . 4966E+02,  Tot Ovf Vol = . 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10686> R0025: C00336- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10687>       CONTI NUOUS NASHYD           1. 0 01: B1            2. 77      . 097 No_date    28:09    21. 19  . 285    .000
10688>        [ CN= 56. 0: N= 3. 00: Tp=  . 23]
10689>        [ IaREC= 4. 00: SMN= 79. 69: SMX= 531. 24: SK= . 010]
10690>        [ InterEventTime= 12. 00]
10691> R0025: C00337- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10692>       CONTI NUOUS STANDHYD         1. 0 01: A4            1. 27      . 212 No_date    28:01    57. 38  . 771    .000
10693>        [ XI M= 65: TI M= 65]
10694>        [ LOSS= 2 : CN= 75. 0]
10695>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10696>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 253. : MNI= 0. 013: SCI=    .0]
10697>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10698>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
10699> R0025: C00338- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10700>       COMPUTE DUALHYD              1. 0 01: A4            1. 27      . 212 No_date    28:01    57. 38  n/a      .000
10701>        Major System    /          1. 0 02: A4- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10702>        Minor System    \          1. 0 03: A4- MN         1. 27      . 212 No_date    28:01    57. 38  n/a      .000
10703>        [ MjSys St o= . 0000E+00,  Tot Ovf Vol = . 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10704> R0025: C00339- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10705>       ADD HYD                      1. 0 02: Al- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10706>                              +     1. 0 02: A1- MN         15. 75     1. 818 No_date    27:58    49. 57  n/a      .000
10707>                              +     1. 0 02: corr1- MI        .00      . 000 No_date    0: 00     .00  n/a      .000
10708>                              +     1. 0 02: corr1- MN      15. 87     1. 818 No_date    28:15    57. 37  n/a      .000
10709>                              +     1. 0 02: corr2         12. 47      . 276 No_date    29:10    34. 14  n/a      .000
10710>                              +     1. 0 02: B1             2. 77      . 097 No_date    28:09    21. 19  n/a      .000
10711>                              +     1. 0 02: A4- MN         1. 27      . 212 No_date    28:01    57. 38  n/a      .000
10712>                              SUM=  1. 0 01: MH01          48. 13     3. 979 No_date    28:02    46. 72  n/a      .000
10713> R0025: C00340- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10714>       SAVE HYD                     1. 0 01: MH01          48. 13     3. 979 No_date    28:02    46. 72  n/a      .000
10715>        fname : MH01. 0025
10716>        remark: Total Flows at MH01
10717> R0025: C00341- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10718>       ROUTE PIPE       ->          1. 0 02: MH01          48. 13     3. 979 No_date    28:02    46. 72  n/a      .000
10719> *     [RDT= 1. 00] out <-          1. 0 01: 101- 102      48. 13     3. 953 No_date    28:05    46. 72  n/a      .000
10720>        [L/ S/ n=  368. /  . 540/ . 013]
10721>        [Vmax= 3. 134: Dmax= 1. 114]
10722>        [Di n= 1. 05: Dused= 1. 36]
10723> R0025: C00342- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10724>       ADD HYD                      1. 0 02: A2- MN         25. 50     1. 818 No_date    27:54    49. 64  n/a      .000
10725>                              +     1. 0 02: 101- 102       48. 13     3. 953 No_date    28:05    46. 72  n/a      .000
10726>                              SUM=  1. 0 01: MH02          73. 63     5. 771 No_date    28:05    47. 73  n/a      .000
10727> R0025: C00343- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10728>       SAVE HYD                     1. 0 01: MH02          73. 63     5. 771 No_date    28:05    47. 73  n/a      .000
10729>        fname : MH02. 0025
10730>        remark: Total Flows at MH02
10731> R0025: C00344- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10732>       CONTI NUOUS STANDHYD         1. 0 01: A5            1. 60      . 279 No_date    28:01    60. 02  . 807    .000
10733>        [ XI M= 71: TI M= 71]
10734>        [ LOSS= 2 : CN= 75. 0]
10735>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10736>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 300. : MNI= 0. 013: SCI=    .0]
10737>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10738>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
10739> R0025: C00345- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10740>       ADD HYD                      1. 0 02: A4- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10741>                              +     1. 0 02: A5            1. 60      . 279 No_date    28:01    60. 02  n/a      .000
10742>                              SUM=  1. 0 01: AST           1. 60      . 279 No_date    28:01    60. 02  n/a      .000
10743> R0025: C00346- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10744>       COMPUTE DUALHYD              1. 0 01: AST           1. 60      . 279 No_date    28:01    60. 02  n/a      .000
10745>        Major System    /          1. 0 02: A5- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10746>        Minor System    \          1. 0 03: A5- MN         1. 60      . 279 No_date    28:01    60. 02  n/a      .000
10747>        [ MjSys St o= . 0000E+00,  Tot Ovf Vol = . 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10748> R0025: C00347- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10749>       ROUTE PIPE       ->          1. 0 02: MH02          73. 63     5. 771 No_date    28:05    47. 73  n/a      .000
10750> *     [RDT= 1. 00] out <-          1. 0 01: 102- 103      73. 63     5. 682 No_date    28:08    47. 73  n/a      .000
10751>        [L/ S/ n=  504. /  . 280/ . 013]
10752>        [Vmax= 2. 688: Dmax= 1. 448]
10753>        [Di n= 1. 50: Dused= 1. 76]
10754> R0025: C00348- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10755>       ADD HYD                      1. 0 02: 102- 103      73. 63     5. 682 No_date    28:08    47. 73  n/a      .000
10756>                              +     1. 0 02: A5- MN         1. 60      . 279 No_date    28:01    60. 02  n/a      .000
10757>                              SUM=  1. 0 01: MH03          75. 23     5. 850 No_date    28:06    47. 99  n/a      .000
10758> R0025: C00349- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10759>       SAVE HYD                     1. 0 01: MH03          75. 23     5. 850 No_date    28:06    47. 99  n/a      .000
10760>        fname : MH03. 0025
10761>        remark: Total Flows at MH03
10762> R0025: C00350- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10763>       ROUTE PIPE       ->          1. 0 02: MH03          75. 23     5. 850 No_date    28:06    47. 99  n/a      .000
10764>        [RDT= 1. 00] out <-          1. 0 01: 103- 104      75. 23     5. 807 No_date    28:08    47. 99  n/a      .000
10765>        [L/ S/ n=  438. /  . 460/ . 013]
10766>        [Vmax= 3. 289: Dmax= 1. 280]
10767>        [Di n= 1. 65: Dused= 1. 65]
10768> R0025: C00351- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10769>       CONTI NUOUS STANDHYD         1. 0 01: A6            1. 56      . 274 No_date    28:00    60. 02  . 807    .000
10770>        [ XI M= 71: TI M= 71]
10771>        [ LOSS= 2 : CN= 75. 0]
10772>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10773>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 280. : MNI= 0. 013: SCI=    .0]
10774>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10775>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
10776> R0025: C00352- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10777>       ADD HYD                      1. 0 02: A5- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10778>                              +     1. 0 02: A6            1. 56      . 274 No_date    28:00    60. 02  n/a      .000
10779>                              SUM=  1. 0 01: AST           1. 56      . 274 No_date    28:00    60. 02  n/a      .000
10780> R0025: C00353- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10781>       COMPUTE DUALHYD              1. 0 01: AST           1. 56      . 274 No_date    28:00    60. 02  n/a      .000
10782>        Major System    /          1. 0 02: A6- MI           .00      . 000 No_date    0: 00     .00  n/a      .000
10783>        Minor System    \          1. 0 03: A6- MN         1. 56      . 274 No_date    28:00    60. 02  n/a      .000
10784>        [ MjSys St o= . 0000E+00,  Tot Ovf Vol = . 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
10785> R0025: C00354- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10786>       ADD HYD                      1. 0 02: A6- MN         1. 56      . 274 No_date    28:00    60. 02  n/a      .000
10787>                              +     1. 0 02: TODD_ MJ       75. 23     5. 807 No_date    28:08    47. 99  n/a      .000
10788>                              +     1. 0 02: TODD_ MJn      29. 48     3. 314 No_date    27:57    55. 13  n/a      .000
10789>                              SUM=  1. 0 01: MH04         106. 27     9. 269 No_date    28:06    50. 14  n/a      .000
10790> R0025: C00355- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10791>       SAVE HYD                     1. 0 01: MH04         106. 27     9. 269 No_date    28:06    50. 14  n/a      .000
10792>        fname : MH04. 0025
10793>        remark: Total Flows at MH04
10794> R0025: C00356- ---------- DTmin- I D: NHYD- -------- AREAha- QPEAKcms- TpeakDate_hh: mm- ---- RVmm R. C. - - - DWFcms
10795>       CONTI NUOUS STANDHYD         1. 0 01: B2            12. 31     1. 521 No_date    28:02    49. 75  . 669    .000
10796>        [ XI M= 41: TI M= 54]
10797>        [ LOSS= 2 : CN= 75. 0]
10798>        [ Pervious      area: I Aper= 4. 67: SLPP= 1. 00: LGP=  40. : MNP= 0. 250: SCP=    .0]
10799>        [ Impervious    area: I Aimp= 1. 57: SLPI= 1. 00: LGI= 417. : MNI= 0. 013: SCI=    .0]
10800>        [ IaREC mp=   4. 00: IaREC per=   4. 00]
10801>        [ SMN= 33. 81: SMX= 225. 43: SK= . 010]
10802> R0025: C00357- ---------- DTmin- I D: NHYD- -------- AREAha- Q
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10847>      ROUTE PIPE          ->      1. 0 02: 335- 338          17. 90      1. 490 No_date    28: 26    49. 83   n/ a      .000
10848>       [ RDT= 1. 00]  out <-      1. 0 01: 338- 340          17. 90      1. 456 No_date    28: 26    49. 83   n/ a      .000
10849>        [ L/ S= n  233. /  . 100/ . 013]
10850>        [ Vmx= n  1. 331: Dmx= n  . 985]
10851>        [ Di= n  1. 35: Dused= 1. 35]
10852> R0025: C00366- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10853>      CONTI NUOUS STANDHYD      1. 0 01: B4                7. 60        . 960 No_date    28: 02    49. 75 . 669      .000
10854>        [ XI M= . 41: TI M= . 54]
10855>        [ LOSS= 2 : CN= 75. 0]
10856>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10857>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  388. : MNI =. 013: SCI =    . 0]
10858>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
10859>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
10860> R0025: C00367- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10861>      SAVE HYD            1. 0 01: MH340            25. 50      2. 104 No_date    28: 18    49. 88   n/ a      .000
10862>        fname : MH340. 0025
10863>        remark: Total Flows at MH340
10864> R0025: C00370- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10865>      ROUTE PIPE          ->      1. 0 02: MH340            25. 50      2. 104 No_date    28: 18    49. 88   n/ a      .000
10866>       [ RDT= 1. 00]  out <-      1. 0 01: 340- 104          25. 50      2. 086 No_date    28: 18    49. 88   n/ a      .000
10867>        [ L/ S= n  240. /  . 150/ . 013]
10868>        [ Vmx= n  1. 722: Dmx= n  . 917]
10869>        [ Di= n  1. 65: Dused= 1. 65]
10870> R0025: C00371- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10871>      ADD HYD             1. 0 02: 340- 104          25. 50      2. 086 No_date    28: 18    49. 88   n/ a      .000
10872>                        +     1. 0 02: MH104          106. 27      9. 269 No_date    28: 06    50. 14   n/ a      .000
10873>                      SUM=    1. 0 01: MH104T         131. 77     11. 233 No_date    28: 08    50. 09   n/ a      .000
10874> R0025: C00372- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10875>      ROUTE PIPE          ->      1. 0 02: MH104T         131. 77     11. 233 No_date    28: 08    50. 09   n/ a      .000
10876> *    [ RDT= 1. 00]  out <-      1. 0 01: 104- 105          131. 77     10. 846 No_date    28: 08    50. 09   n/ a      .000
10877>        [ L/ S= n  380. /  . 100/ . 013]
10878>        [ Vmx= n  2. 100: Dmx= n  1. 992]
10879>        [ HDT= 2. 35: Wthr= 2. 68]
10880> R0025: C00373- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10881>      CONTI NUOUS STANDHYD      1. 0 01: B5                2. 20        . 346 No_date    28: 00    53. 85 . 724      .000
10882>        [ XI M= . 57: TI M= . 57]
10883>        [ LOSS= 2 : CN= 75. 0]
10884>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10885>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  187. : MNI =. 013: SCI =    . 0]
10886>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
10887>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
10888> R0025: C00374- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10889>      COMPUTE DUALHYD     1. 0 01: B5                2. 20        . 346 No_date    28: 00    53. 85   n/ a      .000
10890>        Major System    /       1. 0 02: B5- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10891>        Minor System    \       1. 0 03: B5- MN            2. 20        . 260 No_date    27: 54    53. 87   n/ a      .000
10892>        [ MJ Sys St= . 3304E+02,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
10893> R0025: C00375- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10894>      CONTI NUOUS STANDHYD      1. 0 01: A8                . 96        . 177 No_date    28: 00    60. 02 . 807      .000
10895>        [ XI M= . 71: TI M= . 71]
10896>        [ LOSS= 2 : CN= 75. 0]
10897>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10898>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  186. : MNI =. 013: SCI =    . 0]
10899>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
10900>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
10901> R0025: C00376- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10902>      ADD HYD             1. 0 02: A6- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10903>                        +     1. 0 02: A8                . 96        . 177 No_date    28: 00    60. 02   n/ a      .000
10904>                      SUM=    1. 0 01: A6T               . 96        . 177 No_date    28: 00    60. 02   n/ a      .000
10905> R0025: C00377- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10906>      COMPUTE DUALHYD     1. 0 02: A6- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10907>        Major System    /       1. 0 02: A6- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10908>        Minor System    \       1. 0 03: A6- MN             . 96        . 177 No_date    28: 00    60. 02   n/ a      .000
10909>        [ MJ Sys St= . 0000E+00,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
10910> R0025: C00378- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10911>      ADD HYD             1. 0 02: 104- 105          131. 77     10. 846 No_date    28: 08    50. 09   n/ a      .000
10912>                        +     1. 0 02: B5- MN            2. 20        . 260 No_date    27: 54    53. 87   n/ a      .000
10913>                        +     1. 0 02: A6- MN             . 96        . 177 No_date    28: 00    60. 02   n/ a      .000
10914>                        +     1. 0 02: TODD_MNj           . 00        . 004 No_date    27: 00    53. 58   n/ a      .000
10915>                      SUM=    1. 0 01: MH105         134. 93     11. 175 No_date    28: 08    50. 23   n/ a      .000
10916> R0025: C00379- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10917>      SAVE HYD            1. 0 01: MH105         134. 93     11. 175 No_date    28: 08    50. 23   n/ a      .000
10918>        fname : MH105. 0025
10919>        remark: Total Flows at MH105
10920> R0025: C00380- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10921> *  DI VERT HYD         ->      1. 0 01: A8- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10922>          diverted <=     1. 0 02: A8- MJ- JR            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10923>          diverted <=     1. 0 03: A8- MI- B6            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10924> R0025: C00381- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10925>      DI VERT HYD         ->      1. 0 01: MH105         134. 93     11. 175 No_date    28: 08    50. 23   n/ a      .000
10926>          diverted <=     1. 0 02: MH105- JR          33. 95      8. 167 No_date    28: 08    50. 23   n/ a      .000
10927>          diverted <=     1. 0 03: MH105- B6         100. 98      3. 008 No_date    28: 08    50. 23   n/ a      .000
10928> R0025: C00382- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10929>      CONTI NUOUS STANDHYD      1. 0 01: B7                7. 19        . 975 No_date    28: 01    49. 75 . 669      .000
10930>        [ XI M= . 41: TI M= . 54]
10931>        [ LOSS= 2 : CN= 75. 0]
10932>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10933>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  211. : MNI =. 013: SCI =    . 0]
10934>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
10935>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
10936> R0025: C00383- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10937>      ADD HYD             1. 0 02: B4- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10938>                        +     1. 0 02: B7                7. 19        . 975 No_date    28: 01    49. 75   n/ a      .000
10939>                      SUM=    1. 0 01: B7- B4M           7. 19        . 975 No_date    28: 01    49. 75   n/ a      .000
10940> R0025: C00384- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10941>      COMPUTE DUALHYD     1. 0 01: B7- B4M           7. 19        . 975 No_date    28: 01    49. 75   n/ a      .000
10942>        Major System    /       1. 0 02: B7R- MI            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10943>        Minor System    \       1. 0 03: B7R- MN           7. 19        . 629 No_date    27: 53    50. 01   n/ a      .000
10944>        [ MJ Sys St= . 0000E+00,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
10945> R0025: C00385- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10946>      ROUTE PIPE          ->      1. 0 02: B7R- MN           7. 19        . 629 No_date    27: 53    50. 01   n/ a      .000
10947> *    [ RDT= 1. 00]  out <-      1. 0 01: 360- 106A         7. 19        . 629 No_date    28: 21    50. 01   n/ a      .000
10948>        [ L/ S= n  167. /  . 100/ . 013]
10949>        [ Vmx= n  1. 089: Dmx= n  . 665]
10950>        [ Di= n  1. 05: Dused= 1. 05]
10951> R0025: C00386- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10952>      CONTI NUOUS STANDHYD      1. 0 01: B6                3. 29        . 465 No_date    28: 00    49. 75 . 669      .000
10953>        [ XI M= . 41: TI M= . 54]
10954>        [ LOSS= 2 : CN= 75. 0]
10955>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10956>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  148. : MNI =. 013: SCI =    . 0]
10957>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
10958>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
10959> R0025: C00387- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10960>      COMPUTE DUALHYD     1. 0 01: B6                3. 29        . 465 No_date    28: 00    49. 75   n/ a      .000
10961>        Major System    /       1. 0 02: B6- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10962>        Minor System    \       1. 0 03: B6- MN            3. 29        . 064 No_date    27: 34    49. 75   n/ a      .000
10963>        [ MJ Sys St= . 5165E+03,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
10964> R0025: C00388- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10965>      CONTI NUOUS STANDHYD      1. 0 01: EX- LAND          32. 50      4. 063 No_date    28: 02    50. 08 . 673      .000
10966>        [ XI M= . 50: TI M= . 50]
10967>        [ LOSS= 2 : CN= 74. 0]
10968>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
10969>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  465. : MNI =. 013: SCI =    . 0]
10970>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
10971>        [ SMN= 36. 67:  SMX%=244. 49:  SK= . 010]
10972> R0025: C00389- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10973>      COMPUTE DUALHYD     1. 0 01: EX- LAND          32. 50      4. 063 No_date    28: 02    50. 08   n/ a      .000
10974>        Major System    /       1. 0 02: EX- LAND- MI       32. 50      2. 275 No_date    27: 52    50. 26   n/ a      .000
10975>        Minor System    \       1. 0 03: EX- LAND- MN        . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10976>        [ MJ Sys St= . 1224E+04,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
10977> R0025: C00390- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10978>      ADD HYD             1. 0 02: B7R- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10979>                        +     1. 0 02: EX- LAND- MI       32. 50      2. 275 No_date    27: 52    50. 26   n/ a      .000
10980>                        +     1. 0 02: B5- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10981>                        +     1. 0 02: B6- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10982>                        +     1. 0 02: B6- MN            3. 29        . 064 No_date    27: 34    49. 75   n/ a      .000
10983>                        +     1. 0 02: A8- MI- B6         . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10984>                      SUM=    1. 0 01: B6- B7ExM         3. 29        . 064 No_date    27: 34    49. 75   n/ a      .000
10985> R0025: C00391- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10986>      COMPUTE DUALHYD     1. 0 01: B6- B7ExM         3. 29        . 064 No_date    27: 34    49. 75   n/ a      .000
10987>        Major System    /       1. 0 02: B6R- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
10988>        Minor System    \       1. 0 03: B6R- MN            3. 29        . 064 No_date    27: 34    49. 75   n/ a      .000
10989>        [ MJ Sys St= . 0000E+00,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
10990> R0025: C00392- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10991>      ROUTE PIPE          ->      1. 0 02: MH105- B6         100. 98      3. 008 No_date    28: 08    50. 23   n/ a      .000
10992>       [ RDT= 1. 00]  out <-      1. 0 01: 105- 106A         100. 98      3. 018 No_date    28: 02    50. 23   n/ a      .000
10993>        [ L/ S= n  208. /  . 100/ . 013]
10994>        [ Vmx= n  1. 597: Dmx= n  1. 249]
10995>        [ Di= n  1. 80: Dused= 1. 80]
10996> R0025: C00393- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
10997>      ADD HYD             1. 0 02: 360- 106A          7. 19        . 629 No_date    28: 21    50. 01   n/ a      .000
10998>                        +     1. 0 02: 105- 106A         100. 98      3. 018 No_date    28: 02    50. 23   n/ a      .000
10999>                        +     1. 0 02: B6R- MN           3. 29        . 064 No_date    27: 34    49. 75   n/ a      .000
11000>                        +     1. 0 02: B6R- MI            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
11001>                      SUM=    1. 0 01: MH106A          111. 46      3. 702 No_date    28: 02    50. 20   n/ a      .000
11002> R0025: C00394- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11003>      SAVE HYD            1. 0 01: MH106A          111. 46      3. 702 No_date    28: 02    50. 20   n/ a      .000
11004>        fname : MH106A 0025
11005>        remark: Total Flows at MH106A
11006> R0025: C00395- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11007>      ROUTE PIPE          ->      1. 0 02: MH106A          111. 46      3. 702 No_date    28: 02    50. 20   n/ a      .000
11008> *    [ RDT= 1. 00]  out <-      1. 0 01: 106A- 106         111. 46      3. 699 No_date    28: 16    50. 20   n/ a      .000
11009>        [ L/ S= n  190. /  . 100/ . 013]
11010>        [ Vmx= n  1. 635: Dmx= n  1. 487]
11011>        [ Di= n  1. 80: Dused= 1. 81]
11012> R0025: C00396- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11013>      CONTI NUOUS STANDHYD      1. 0 01: A9                2. 44        . 433 No_date    28: 00    60. 02 . 807      .000
11014>        [ XI M= . 71: TI M= . 71]
11015>        [ LOSS= 2 : CN= 75. 0]
11016>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
11017>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  262. : MNI =. 013: SCI =    . 0]
11018>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
11019>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
11020> R0025: C00397- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11021>      COMPUTE DUALHYD     1. 0 01: A9                2. 44        . 433 No_date    28: 00    60. 02   n/ a      .000
11022>        Major System    /       1. 0 02: A9- MI             . 00        . 000 No_date     0: 00     . 00   n/ a      .000
11023>        Minor System    \       1. 0 03: A9- MN            2. 44        . 433 No_date    28: 00    60. 02   n/ a      .000
11024> R0025: C00398- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11025>      ADD HYD             1. 0 02: 106A- 106         111. 46      3. 699 No_date    28: 16    50. 20   n/ a      .000
11026>                        +     1. 0 02: A9- MN            2. 44        . 433 No_date    28: 00    60. 02   n/ a      .000
11027>                      SUM=    1. 0 01: MH106         113. 90      4. 090 No_date    28: 01    50. 41   n/ a      .000
11028> R0025: C00399- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11029>      SAVE HYD            1. 0 01: MH106         113. 90      4. 090 No_date    28: 01    50. 41   n/ a      .000
11030>        fname : MH106. 0025
11031>        remark: Total Flows at MH106
11032> R0025: C00400- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11033>      ROUTE PIPE          ->      1. 0 02: MH106         113. 90      4. 090 No_date    28: 01    50. 41   n/ a      .000
11034> *    [ RDT= 1. 00]  out <-      1. 0 01: 106- 107          113. 90      4. 067 No_date    28: 03    50. 41   n/ a      .000
11035>        [ L/ S= n  123. /  . 100/ . 013]
11036>        [ Vmx= n  1. 676: Dmx= n  1. 443]
11037>        [ Di= n  1. 80: Dused= 1. 88]
11038> R0025: C00401- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11039>      CONTI NUOUS STANDHYD      1. 0 01: A10               4. 14        . 526 No_date    28: 01    46. 81 . 629      .000
11040>        [ XI M= . 35: TI M= . 47]
11041>        [ LOSS= 2 : CN= 75. 0]
11042>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
11043>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
11044>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
11045>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
11046> R0025: C00402- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11047>      COMPUTE DUALHYD     1. 0 01: A10               4. 14        . 526 No_date    28: 01    46. 81   n/ a      .000
11048>        Major System    /       1. 0 02: A10- MI            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
11049>        Minor System    \       1. 0 03: A10- MN           4. 14        . 310 No_date    27: 52    46. 90   n/ a      .000
11050>        [ MJ Sys St= . 1196E+03,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
11051> R0025: C00403- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11052>      CONTI NUOUS STANDHYD      1. 0 01: A11              10. 61       1. 511 No_date    28: 01    54. 09 . 727      .000
11053>        [ XI M= . 53: TI M= . 62]
11054>        [ LOSS= 2 : CN= 75. 0]
11055>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
11056>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
11057>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
11058>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
11059> R0025: C00404- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11060>      COMPUTE DUALHYD     1. 0 01: A11              10. 61       1. 511 No_date    28: 01    54. 09   n/ a      .000
11061>        Major System    /       1. 0 02: A11- MI            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
11062>        Minor System    \       1. 0 03: A11- MN           10. 61       . 993 No_date    27: 54    54. 21   n/ a      .000
11063>        [ MJ Sys St= . 2791E+03,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
11064> R0025: C00405- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11065>      ADD HYD             1. 0 02: 106- 107          113. 90      4. 067 No_date    28: 03    50. 41   n/ a      .000
11066>                        +     1. 0 02: A10- MN           4. 14        . 310 No_date    27: 52    46. 90   n/ a      .000
11067>                        +     1. 0 02: A11- MN           10. 61       . 993 No_date    27: 54    54. 21   n/ a      .000
11068>                      SUM=    1. 0 01: MH107         128. 65      5. 370 No_date    28: 03    50. 61   n/ a      .000
11069> R0025: C00406- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11070>      SAVE HYD            1. 0 01: MH107         128. 65      5. 370 No_date    28: 03    50. 61   n/ a      .000
11071>        fname : MH107. 0025
11072>        remark: Total Flows at MH107
11073> R0025: C00407- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11074>      ROUTE PIPE          ->      1. 0 02: MH107         128. 65      5. 370 No_date    28: 03    50. 61   n/ a      .000
11075> *    [ RDT= 1. 00]  out <-      1. 0 01: 107- 119          128. 65      5. 354 No_date    28: 04    50. 61   n/ a      .000
11076>        [ L/ S= n  114. /  . 120/ . 013]
11077>        [ Vmx= n  1. 922: Dmx= n  1. 653]
11078>        [ Di= n  1. 80: Dused= 2. 01]
11079> R0025: C00408- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11080>      ROUTE PIPE          ->      1. 0 02: 107- 119          128. 65      5. 374 No_date    28: 04    50. 61   n/ a      .000
11081> *    [ RDT= 1. 00]  out <-      1. 0 01: 119- 108          128. 65      5. 354 No_date    28: 04    50. 61   n/ a      .000
11082>        [ L/ S= n  66. /  . 120/ . 013]
11083>        [ Vmx= n  1. 922: Dmx= n  1. 653]
11084>        [ Di= n  1. 80: Dused= 2. 01]
11085> R0025: C00409- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11086>      CONTI NUOUS STANDHYD      1. 0 01: A12              12. 29       1. 704 No_date    28: 01    49. 75 . 669      .000
11087>        [ XI M= . 41: TI M= . 54]
11088>        [ LOSS= 2 : CN= 75. 0]
11089>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
11090>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
11091>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
11092>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
11093> R0025: C00410- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11094>      COMPUTE DUALHYD     1. 0 01: A12              12. 29       1. 704 No_date    28: 01    49. 75   n/ a      .000
11095>        Major System    /       1. 0 02: A12- MI            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
11096>        Minor System    \       1. 0 03: A12- MN           12. 29       1. 029 No_date    27: 52    49. 91   n/ a      .000
11097>        [ MJ Sys St= . 3558E+03,  Tot Or Vol = . 0000E+00,  N- Or f =     0,  Tot Dur Or f =    0. hrs]
11098> R0025: C00411- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11099>      CONTI NUOUS STANDHYD      1. 0 01: A13               2. 59        . 435 No_date    28: 01    60. 02 . 807      .000
11100>        [ XI M= . 71: TI M= . 71]
11101>        [ LOSS= 2 : CN= 75. 0]
11102>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
11103>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
11104>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
11105>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
11106> R0025: C00412- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11107>      COMPUTE DUALHYD     1. 0 01: A13               2. 59        . 435 No_date    28: 01    60. 02   n/ a      .000
11108>        Major System    /       1. 0 02: A13- MI            . 00        . 000 No_date     0: 00     . 00   n/ a      .000
11109>        Minor System    \       1. 0 03: A13- MN           2. 59        . 435 No_date    28: 01    60. 02   n/ a      .000
11110> R0025: C00413- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11111>      CONTI NUOUS STANDHYD      1. 0 01: Pond- Block       2. 94        . 375 No_date    28: 00    47. 01 . 632      .000
11112>        [ XI M= . 41: TI M= . 41]
11113>        [ LOSS= 2 : CN= 75. 0]
11114>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
11115>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
11116>        [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
11117>        [ SMN= 33. 81:  SMX%=225. 43:  SK= . 010]
11118> R0025: C00414- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11119>      ADD HYD             1. 0 02: 116- 108          128. 65      5. 354 No_date    28: 04    50. 61   n/ a      .000
11120>                        +     1. 0 02: A13- MN           2. 59        . 435 No_date    28: 01    60. 02   n/ a      .000
11121>                        +     1. 0 02: A12- MN           12. 29       1. 029 No_date    27: 52    49. 91   n/ a      .000
11122>                      SUM=    1. 0 01: MH108         143. 53      6. 791 No_date    28: 03    50. 72   n/ a      .000
11123> R0025: C00415- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11124>      SAVE HYD            1. 0 01: MH108         143. 53      6. 791 No_date    28: 03    50. 72   n/ a      .000
11125>        fname : MH108. 0025
11126>        remark: Total Flows at MH108
11127> R0025: C00416- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11128>      ROUTE PIPE          ->      1. 0 02: MH108         143. 53      6. 791 No_date    28: 03    50. 72   n/ a      .000
11129> *    [ RDT= 1. 00]  out <-      1. 0 01: 108- 116          143. 53      6. 772 No_date    28: 04    50. 72   n/ a      .000
11130>        [ L/ S= n  77. /  . 130/ . 013]
11131>        [ Vmx= n  2. 100: Dmx= n  1. 778]
11132>        [ Di= n  1. 80: Dused= 2. 17]
11133> R0025: C00417- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11134>      ROUTE PIPE          ->      1. 0 02: 108- 116          143. 53      6. 772 No_date    28: 04    50. 72   n/ a      .000
11135> *    [ RDT= 1. 00]  out <-      1. 0 01: 116- corrig       143. 53      6. 762 No_date    28: 05    50. 72   n/ a      .000
11136>        [ L/ S= n  80. /  . 130/ . 013]
11137>        [ Vmx= n  2. 098: Dmx= n  1. 776]
11138>        [ Di= n  1. 80: Dused= 2. 16]
11139> R0025: C00418- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11140>      ADD HYD             1. 0 02: 116- corrig       143. 53      6. 762 No_date    28: 05    50. 72   n/ a      .000
11141>                        +     1. 0 02: Pond- Block       2. 94        . 375 No_date    28: 00    47. 01   n/ a      .000
11142>                      SUM=    1. 0 01: Corrigan          146. 47      7. 034 No_date    28: 04    50. 65   n/ a      .000
11143> R0025: C00419- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11144>      SAVE HYD            1. 0 01: Corrigan          146. 47      7. 034 No_date    28: 04    50. 65   n/ a      .000
11145>        fname : Corrigan. 0025
11146>        remark: HYD_COMMENT=[ "Total Flows at Corrigan Pond]
11147> R0025: C00420- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDate_hh: mm- - - - RVmm R. C. - - - - DWFcms
11148>      ROUTE RESERVOIR ->      1. 0 02: Corrigan          146. 47      7. 034 No_date    28: 04    50. 65   n/ a      .000
11149>                        out <=    1. 0 01: Out- P            146. 47      6. 458 No_date    28: 16    50. 64   n/ a      .000
11150>                     overflow <=    1. 0 03: Co- P. OVF         . 00        . 000 No_date     0: 00     . 00   n/ a      .000
11151>        [ MaxStoRed= . 1034E+01  m3,  Tot Or Vol = . 0000E+00  m3,  N
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11221>       remark: Total Flows at Jockvale Road
11222> #
11223> # Hydrograph from Jockvale Road routed to Heart's Desire
11224> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
11225> #
11226> R0025: C00428-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11227>      ROUTE CHANNEL    ->      1. 0 02: SN_MI       55194.86  104.359 No_date   39:26   29.33  n/a     .000
11228>      [RDT= 1.00] out<-        1. 0 01: N_DE        55194.86  104.140 No_date   39:45   29.33  n/a     .000
11229>      [L/S/n= 1962./  .223/ .045]
11230>      [Vmx= 1.483: Dmax= 2.264]
11231> #*************************************************************************
11232> #    Catchment DESIRE
11233> #    - To Jock River (north of the Jock)
11234> #    - Rural-estate subdivision (Heart's Desire Community)
11235> #*************************************************************************
11236> R0025: C00429-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11237>      CONTINUOUS STANDHYD      1. 0 01: DESIRE       23.78     2.161 No_date   28:03   40.77 .548     .000
11238>      [XIMP=.25: TIMP=.25]
11239>      [LOSS= 2 : CN= 77.0]
11240>      [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
11241>      [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 400. : MNI=. 013: SCI=    .0]
11242>      [IaRECmp=    4. 00: IaRECper=    4. 00]
11243>      [SMN= 31. 15: SMX=207. 66: SK= .010]
11244> #*************************************************************************
11245> #    Catchment JOCKVA
11246> #    - To Jockvale SWM Facility
11247> #    - Residential development & golf course
11248> #    - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
11249> #      JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
11250> #*************************************************************************
11251> R0025: C00430-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11252>      CONTINUOUS STANDHYD      1. 0 01: JOCKVA      225.13    21.797 No_date   28:07   50.08 .673     .000
11253>      [XIMP=.50: TIMP=.50]
11254>      [LOSS= 2 : CN= 74.0]
11255>      [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    .0]
11256>      [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=1311. : MNI=. 013: SCI=    .0]
11257>      [IaRECmp=    4. 00: IaRECper=    4. 00]
11258>      [SMN= 36. 67: SMX=244. 49: SK= .010]
11259> R0025: C00431-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11260>      ADD HYD                  1. 0 02: EX-LAND-MN      32.50     2.275 No_date   27:52   50.26  n/a     .000
11261>                           +   1. 0 02: JOCKVA       225.13    21.797 No_date   28:07   50.08  n/a     .000
11262>                           +   1. 0 02: B2-MI            .00        .000 No_date    0:00     .00  n/a     .000
11263>                           +   1. 0 02: B3-MI            .00        .000 No_date    0:00     .00  n/a     .000
11264>                       SUM=    1. 0 01: JOCKVA-TO   257.63    24.072 No_date   28:07   50.10  n/a     .000
11265> R0025: C00432-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11266>      SAVE HYD                 1. 0 01: JOCKVA-TO   257.63    24.072 No_date   28:07   50.10  n/a     .000
11267>       fname: JOCKVA-TO. 0025
11268>       remark: Total Flows at KB first pond
11269> #*************************************************************************
11270> #    Jockvale SWM Facility
11271> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
11272> #*************************************************************************
11273> R0025: C00433-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11274>      ROUTE RESERVOIR  ->      1. 0 02: JOCKVA-TO   257.63    24.072 No_date   28:07   50.10  n/a     .000
11275>                       out <=  1. 0 01: JOCK_P      257.63     9.145 No_date   28:37   50.10  n/a     .000
11276>           overflow <=         1. 0 03: JO-OVF          .00        .000 No_date    0:00     .00  n/a     .000
11277>      [MxStoUsed=  .1425E-01  mi,  TotOrVol=. 0000E+00  mi,  N Or f=    0,  TotDurOf=    0. hrs]
11278> R0025: C00434-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11279>      ADD HYD                  1. 0 02: N_DE        55194.86  104.140 No_date   39:45   29.33  n/a     .000
11280>                           +   1. 0 02: DESIRE        23.78     2.161 No_date   28:03   40.77  n/a     .000
11281>                           +   1. 0 02: JO-OVF          .00        .000 No_date    0:00     .00  n/a     .000
11282>                           +   1. 0 02: JOCK_P      257.63     9.145 No_date   28:37   50.10  n/a     .000
11283>                       SUM=    1. 0 01: SN_DE       55476.27  104.765 No_date   39:44   29.43  n/a     .000
11284> R0025: C00435-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11285>      SAVE HYD                 1. 0 01: SN_DE       55476.27  104.765 No_date   39:44   29.43  n/a     .000
11286>       fname: SN_DE. 0025
11287>       remark: Total Flows at Heart's Desire
11288> #
11289> # Hydrograph from Heart's Desire routed to Rideau River
11290> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
11291> #
11292> R0025: C00436-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11293>      ROUTE CHANNEL    ->      1. 0 02: SN_DE       55476.27  104.765 No_date   39:44   29.43  n/a     .000
11294>      [RDT= 1.00] out<-        1. 0 01: NI          55476.27  104.757 No_date   39:48   29.43  n/a     .000
11295>      [L/S/n=  563./ .967/ .045]
11296>      [Vmx= 1.941: Dmax= 1.134]
11297> #*************************************************************************
11298> #    Catchment S-2
11299> #    - To Jock River (north and south)
11300> #    - Undeveloped floodplain and river
11301> #*************************************************************************
11302> R0025: C00437-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11303>      CONTINUOUS NASHYD        1. 0 01: S-2         102.94     3.971 No_date   28:20   30.13 .405     .000
11304>      [CN= 72. 0: N= 3. 00: Tp=   .40]
11305>      [IaREC= 4. 00: SMN= 39. 75: SMX=264. 99: SK= .010]
11306>      [InterEventTime=  12. 00]
11307> R0025: C00438-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11308>      ADD HYD                  1. 0 02: NI          55476.27  104.757 No_date   39:48   29.43  n/a     .000
11309>                           +   1. 0 02: S-2          102.94     3.971 No_date   28:20   30.13  n/a     .000
11310>                       SUM=    1. 0 01: SN_NI       55579.21  104.958 No_date   39:48   29.43  n/a     .000
11311> R0025: C00439-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11312>      SAVE HYD                 1. 0 01: SN_NI       55579.21  104.958 No_date   39:48   29.43  n/a     .000
11313>       fname: SN_NI. 0025
11314>       remark: Total Flows at Rideau River
11315> ############################################################################
11316>   ** END OF RUN :   49
11317>
11318> ************************************************************************************************************
11319>
11320>
11321>
11322>
11323>
11324>  RUN#: COMMAND#
11325> R0050: C00001-------------------------------------------------------------------------------------------
11326>      START
11327>      [TZERO =     .00 hrs on        0]
11328>      [METOUT=    2    (1=imperial, 2=metric output)]
11329>      [NSTORM=    1 ]
11330>      [NRUN   = 0050 ]
11331> #*************************************************************************
11332> #  SWMHYMO Ver: 5. 02/Jan 2001 <BETA> / INPUT DATA FILE
11333> #*************************************************************************
11334> #  Project Name: [Jock River]          Project Number: [1474-16]
11335> #  Date        : 04-03-2021
11336> #  Modeller    : [MM]
11337> #  Company     : JFSAi nc.
11338> #  License #   : 2549237
11339> #*************************************************************************
11340> # CALIBRATION OF SUMMER MODEL PARAMETERS
11341> # USING CONTINUOUS SIMULATIONS
11342> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
11343> # Use data collected from May 1st to July 14, 2003
11344> # 2020-11-30 change TMISTO in COMPUTE DUALHYD (TMISTO = 0. 1 instead of 0. 0001)
11345> # 2020-12-01 corrected pond curve values
11346> # 2020-12-01 change W_CLAR_BRAZ XIMP to 0. 55, SLPI=[0. 5]([%] (impervious slope), and LGI up to 700m
11347> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"], NHYDin=["SN_TO"]) from 0. 033 %(as per S
11348> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_WC"], NHYDin=["SN_CE"]) from 0. 01 %(as per St
11349> # -------------------------------------------------------------------------
11350> R0050: C00002-------------------------------------------------------------------------------------------
11351>      READ STORM
11352>       Filename = storm. 001
11353>       Comment  = Pluie SCS de 24 hres 1:50 ans pour Ottawa CDA
11354>      [SDT=10. 00: SDUR=  24. 00: PTOT=  81. 51]
11355> R0050: C00003-------------------------------------------------------------------------------------------
11356>      MODIFY STORM
11357>      [RFACT=  1. 00: TSHIFT= 960. 00 min]
11358>      [SDT=10. 00: SDUR=  40. 00: PTOT=  81. 51]
11359> R0050: C00004-------------------------------------------------------------------------------------------
11360>      DEFAULT VALUES
11361>       Filename = T: \PROJ\1474-16\Design\20201026-QuantityControlAnalysis\SWMHYMO_SMR-Model\updated3\CitiGate. DEF
11362>      [CASEdtv  = 1 (read and print data)
11363>       FileTitle= File comment: [Based onvarious calibration exercises in Onta
11364>                  THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
11365>       Horton's infiltration equation parameters:
11366>      [Fo= 76. 20 mm/hr] [Fc=13. 20 mm/hr] [DCAY= 4. 14 /hr] [F=  .00 mm]
11367>       Parameters for PERVIOUS surfaces in STANDHYD:
11368>      [IAper=   4. 67 mm] [LGP=50. 00 m] [MNP=. 250]
11369>      [00    .00    .00    .00    .00    .00    .00    .00    .00    .00
11370>      [IAimp=   1. 57 mm] [CLI= 1. 50]   [MNI=. 013]
11371>       Parameters used in NASHYD:
11372>      [Ia=    4. 67 mm] [N= 3. 00]
11373>       Average monthly Pan Evaporation data in     (mm)
11374>      JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
11375>      .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
11376>       Average monthly Potential Evapotranspiration in     (mm)
11377>      JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC
11378>      .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
11379> R0050: C00005-------------------------------------------------------------------------------------------
11380>      COMPUTE API
11381>      [APIinit= 50. 00: APIkdy=  . 8500: APIkdt=  . 9989]
11382>      [APImax=113. 33: APIavg=  67. 14: APImin=  44. 87]
11383> #
11384> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11385> # of 1. 32
11386> R0050: C00006-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11387>      CONTINUOUS NASHYD        1. 0 01: JR_HW       3680.00   18.440 No_date   36:55   30.33 .372     .000
11388>      [CN= 64. 0: N= 3. 00: Tp= 7. 13]
11389>      [IaREC= 4. 00: SMN= 57. 05: SMX=380. 32: SK= .010]
11390>      [InterEventTime=  12. 00]
11391> #
11392> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11393> # of 1. 32
11394> R0050: C00007-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11395>      CONTINUOUS NASHYD        1. 0 01: SW_13        971.00    6. 937 No_date   32:34   28.27 .347     .000
11396>      [CN= 61. 0: N= 3. 00: Tp= 3. 76]
11397>      [IaREC= 4. 00: SMN= 64. 50: SMX=430. 01: SK= .010]
11398>      [InterEventTime=  12. 00]
11399> #
11400> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11401> # of 1. 80
11402> R0050: C00008-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11403>      CONTINUOUS NASHYD        1. 0 01: JR_GWM      3074.00    8. 912 No_date   39:59   24.31 .298     .000
11404>      [CN= 55. 0: N= 3. 00: Tp=11. 33]
11405>      [IaREC= 4. 00: SMN= 83. 24: SMX=554. 96: SK= .010]
11406>      [InterEventTime=  12. 00]
11407> R0050: C00009-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11408>      CONTINUOUS NASHYD        1. 0 01: JR_ASH      1781.00   16. 834 No_date   32:39   36. 85 . 452     .000
11409>      [CN= 72. 0: N= 3. 00: Tp= 3. 91]
11410>      [IaREC= 4. 00: SMN= 39. 75: SMX=264. 99: SK= .010]
11411>      [InterEventTime=  12. 00]
11412> R0050: C00010-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11413>      CONTINUOUS NASHYD        1. 0 01: SW_11        500.00    9. 061 No_date   29:21   31. 73 . 389     .000
11414>      [CN= 66. 0: N= 3. 00: Tp= 1. 24]
11415>      [IaREC= 4. 00: SMN= 52. 62: SMX=350. 79: SK= .010]
11416>      [InterEventTime=  12. 00]
11417> #
11418> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11419> # of 1. 80
11420> R0050: C00011-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11421>      CONTINUOUS NASHYD        1. 0 01: NN_CK       1917.00   12. 342 No_date   34:26   31. 73 . 389     .000
11422>      [CN= 66. 0: N= 3. 00: Tp= 5. 29]
11423>      [IaREC= 4. 00: SMN= 52. 62: SMX=350. 79: SK= .010]
11424>      [InterEventTime=  12. 00]
11425> #
11426> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11427> # of 1. 52
11428> R0050: C00012-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11429>      CONTINUOUS NASHYD        1. 0 01: SW_10       5666.00   32. 402 No_date   37:52   36. 85 . 452     .000
11430>      [CN= 72. 0: N= 3. 00: Tp= 8. 00]
11431>      [IaREC= 4. 00: SMN= 39. 75: SMX=264. 99: SK= .010]
11432>      [InterEventTime=  12. 00]
11433> #
11434> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11435> # of 1. 75
11436> R0050: C00013-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11437>      CONTINUOUS NASHYD        1. 0 01: KG_CK       8376.00   31. 024 No_date   39:59   31. 73 . 389     .000
11438>      [CN= 66. 0: N= 3. 00: Tp=11. 66]
11439>      [IaREC= 4. 00: SMN= 52. 62: SMX=350. 79: SK= .010]
11440>      [InterEventTime=  12. 00]
11441> #
11442> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11443> # of 1. 68
11444> R0050: C00014-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11445>      CONTINUOUS NASHYD        1. 0 01: SW_9        1132.00   14. 039 No_date   30:53   35. 35 . 434     .000
11446>      [CN= 70. 0: N= 3. 00: Tp= 2. 51]
11447>      [IaREC= 4. 00: SMN= 43. 07: SMX=287. 10: SK= .010]
11448>      [InterEventTime=  12. 00]
11449> #
11450> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11451> # of 1. 82
11452> R0050: C00015-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11453>      CONTINUOUS NASHYD        1. 0 01: NC_CK       4464.00   15. 472 No_date   39:59   28. 95 . 355     .000
11454>      [CN= 62. 0: N= 3. 00: Tp=11. 32]
11455>      [IaREC= 4. 00: SMN= 61. 90: SMX=412. 66: SK= .010]
11456>      [InterEventTime=  12. 00]
11457> #
11458> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11459> # of 1. 80
11460> R0050: C00016-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11461>      CONTINUOUS NASHYD        1. 0 01: SW_8         131.00    2. 740 No_date   28:57   29. 64 . 364     .000
11462>      [CN= 63. 0: N= 3. 00: Tp=   . 90]
11463>      [IaREC= 4. 00: SMN= 59. 42: SMX=396. 11: SK= .010]
11464>      [InterEventTime=  12. 00]
11465> #
11466> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11467> # of 1. 65
11468> R0050: C00017-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11469>      CONTINUOUS NASHYD        1. 0 01: HL_DR       3854.00   18. 180 No_date   38:32   31. 73 . 389     .000
11470>      [CN= 66. 0: N= 3. 00: Tp= 8. 42]
11471>      [IaREC= 4. 00: SMN= 52. 62: SMX=350. 79: SK= .010]
11472>      [InterEventTime=  12. 00]
11473> #
11474> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11475> # of 1. 82
11476> R0050: C00018-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11477>      CONTINUOUS NASHYD        1. 0 01: SW_7        3197.00   13. 937 No_date   36:23   25. 61 . 314     .000
11478>      [CN= 57. 0: N= 3. 00: Tp= 6. 65]
11479>      [IaREC= 4. 00: SMN= 76. 32: SMX=508. 81: SK= .010]
11480>      [InterEventTime=  12. 00]
11481> #
11482> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11483> # of 1. 75
11484> R0050: C00019-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11485>      CONTINUOUS NASHYD        1. 0 01: SW_6         165.00    1. 285 No_date   33:02   32. 44 . 398     .000
11486>      [CN= 67. 0: N= 3. 00: Tp= 4. 18]
11487>      [IaREC= 4. 00: SMN= 50. 55: SMX=336. 97: SK= .010]
11488>      [InterEventTime=  12. 00]
11489> #
11490> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11491> # of 1. 67
11492> R0050: C00020-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11493>      CONTINUOUS NASHYD        1. 0 01: VG_DR       1332.00    9. 332 No_date   35:12   36. 85 . 452     .000
11494>      [CN= 72. 0: N= 3. 00: Tp= 5. 95]
11495>      [IaREC= 4. 00: SMN= 39. 75: SMX=264. 99: SK= .010]
11496>      [InterEventTime=  12. 00]
11497> R0050: C00021-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11498>      CONTINUOUS NASHYD        1. 0 01: SW_5         224.00    8. 187 No_date   28:45   41. 51 . 509     .000
11499>      [CN= 77. 0: N= 3. 00: Tp=   . 75]
11500>      [IaREC= 4. 00: SMN= 31. 15: SMX=207. 66: SK= .010]
11501>      [InterEventTime=  12. 00]
11502> #
11503> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11504> # of 1. 20
11505> R0050: C00022-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11506>      CONTINUOUS NASHYD        1. 0 01: FL_CK       4945.00   44. 623 No_date   33:18   38. 37 . 471     .000
11507>      [CN= 74. 0: N= 3. 00: Tp= 4. 45]
11508>      [IaREC= 4. 00: SMN= 36. 67: SMX=244. 49: SK= .010]
11509>      [InterEventTime=  12. 00]
11510> R0050: C00023-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11511>      CONTINUOUS NASHYD        1. 0 01: SW_5A        20.00     . 943 No_date   28:35   45. 60 . 560     .000
11512>      [CN= 81. 0: N= 3. 00: Tp=   . 62]
11513>      [IaREC= 4. 00: SMN= 25. 21: SMX=168. 09: SK= .010]
11514>      [InterEventTime=  12. 00]
11515> #
11516> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
11517> # of 1. 61
11518> R0050: C00024-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11519>      CONTINUOUS NASHYD        1. 0 01: SW_5AI      1412.00    8. 794 No_date   37:48   39. 93 . 490     .000
11520>      [CN= 75. 0: N= 3. 00: Tp= 8. 00]
11521>      [IaREC= 4. 00: SMN= 33. 81: SMX=225. 43: SK= .010]
11522>      [InterEventTime=  12. 00]
11523> R0050: C00025-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11524>      CONTINUOUS NASHYD        1. 0 01: SW_4         585.00   12. 896 No_date   29:55   45. 60 . 560     .000
11525>      [CN= 81. 0: N= 3. 00: Tp= 1. 75]
11526>      [IaREC= 4. 00: SMN= 25. 21: SMX=168. 09: SK= .010]
11527>      [InterEventTime=  12. 00]
11528> R0050: C00026-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11529>      CONTINUOUS NASHYD        1. 0 01: LM_CK       1021.00   17. 059 No_date   30:46   44. 77 . 549     .000
11530>      [CN= 80. 0: N= 3. 00: Tp= 2. 46]
11531>      [IaREC= 4. 00: SMN= 26. 32: SMX=175. 50: SK= .010]
11532>      [InterEventTime=  12. 00]
11533> R0050: C00027-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11534>      CONTINUOUS NASHYD        1. 0 01: SW_2         177.00    6. 469 No_date   28:45   41. 51 . 509     .000
11535>      [CN= 77. 0: N= 3. 00: Tp=   . 75]
11536>      [IaREC= 4. 00: SMN= 31. 15: SMX=207. 66: SK= .010]
11537>      [InterEventTime=  12. 00]
11538> R0050: C00028-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11539>      CONTINUOUS NASHYD        1. 0 01: SM_DR       1122.00   15. 544 No_date   31:43   45. 60 . 560     .000
11540>      [CN= 81. 0: N= 3. 00: Tp= 3. 25]
11541>      [IaREC= 4. 00: SMN= 25. 21: SMX=168. 09: SK= .010]
11542>      [InterEventTime=  12. 00]
11543> R0050: C00029-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11544>      CONTINUOUS NASHYD        1. 0 01: MO_DR       2737.00   34. 946 No_date   31:29   40. 72 . 500     .000
11545>      [CN= 76. 0: N= 3. 00: Tp= 3. 03]
11546>      [IaREC= 4. 00: SMN= 32. 46: SMX=216. 39: SK= .010]
11547>      [InterEventTime=  12. 00]
11548> #
11549> # Routing hydrographs
11550> #
11551> # Starting with the addition of Jock River Headwater and Subwatershed 13
11552> #
11553> R0050: C00030-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11554>      ADD HYD                  1. 0 02: JR_HW       3680.00   18. 440 No_date   36:55   30. 33  n/a     .000
11555>                           +   1. 0 02: SW_13         971.00    6. 937 No_date   32:34   28. 27  n/a     .000
11556>                       SUM=    1. 0 01: S_N13       4651.00   23. 559 No_date   35:24   29. 90  n/a     .000
11557> #
11558> # Sum of hydrographs from Node 13 routed to Node 13A
11559> # (Approximated cross-section - see cross-section 258)
11560> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
11561> #
11562> R0050: C00031-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11563>      ROUTE CHANNEL    ->      1. 0 02: S_N13       4651.00   23. 559 No_date   35:24   29. 90  n/a     .000
11564>      [RDT= 1.00] out<-        1. 0 01: N13A        4651.00   19. 136 No_date   39:06   29. 90  n/a     .000
11565>      [L/S/n= 9074./ . 022/ .040]
11566>      [Vmx=  . 574: Dmax= 3. 920]
11567> #
11568> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
11569> #
11570> R0050: C00032-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11571>      ADD HYD                  1. 0 02: N13A        4651.00   19. 136 No_date   39:06   29. 90  n/a     .000
11572>                           +   1. 0 02: JR_GWM      3074.00    8. 912 No_date   39:59   24. 31  n/a     .000
11573>                       SUM=    1. 0 01: SN13A       7725.00   27. 939 No_date   39:54   27. 68  n/a     .000
11574> #
11575> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
11576> #
11577> R0050: C00033-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11578>      ROUTE RESERVOIR  ->      1. 0 02: SN13A       7725.00   27. 939 No_date   39:54   27. 68  n/a     .000
11579>                       out <=  1. 0 01: RES_GM      7725.00    3. 808 No_date   61:35   27. 67  n/a     .000
11580>      [MxStoUsed=. 1481E+03  m3]
11581> #
11582> R0050: C00034-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11583>      SAVE HYD                 1. 0 01: RES_GM      7725.00    3. 808 No_date   61:35   27. 67  n/a     .000
11584>       fname: H_RESGM
11585>       remark: Outflow from Res GM
11586> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
11587> # (Approximated cross-section - see cross-section 258)
11588> # Use n=0. 04 for summer conditions and n=0. 025 for spring conditions
11589> R0050: C00035-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.----DWFcms
11590>      ROUTE CHANNEL    ->      1. 0 02: RES_GM      7725.00    3. 808 No_date   61:35   27. 67  n/a     .000
11591>      [RDT= 1.00] out<-        1. 0 01: N12         7725.00    3. 804 No_date   64:19   27. 68  n/a     .000
11592>      [L/S/n= 5926./ . 076/ .040]
11593>      [Vmx=  . 556: Dmax= 1. 541]
11594> #
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11595> # Addition of Subwatershed Jock River at Ashton to Node 12
11596> #
11597> R0050: CO0036-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11598>      ADD HYD                1.0 02: N12          7725.00     3.804 No_date   64:19   27.68  n/a     .000
11599>                         +   1.0 02: JR_ASH       1781.00    16.834 No_date   32:39   36.85  n/a     .000
11600>                     SUM=    1.0 01: S_N12        9506.00    18.867 No_date   32:42   29.39  n/a     .000
11601> R0050: CO0037-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11602>      SAVE HYD               1.0 01: S_N12        9506.00    18.867 No_date   32:42   29.39  n/a     .000
11603>        fname : H_SN12
11604>        remark: flow at S_N12 near Ashton
11605> #
11606> # Sum of hydrographs from Node 12 routed to Node 11
11607> # (Approximated cross-section - see cross-section 258)
11608> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
11609> #
11610> # Sum of hydrographs from Node 12 routed to Node 11 with Dammy section 248
11611> #
11612> R0050: CO0038-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11613>      ROUTE CHANNEL     ->     1.0 02: S_N12        9506.00    18.867 No_date   32:42   29.39  n/a     .000
11614>        [ RDT= 1.00] out <-    1.0 01: Dam1         9506.00    18.687 No_date   32:59   29.39  n/a     .000
11615>        [ L/ S/ n=  972./ . 054/ . 040]
11616>        [ Vmx=  .751: Dmx= 3. 029]
11617> #
11618> # Addition of Subwatershed 11 and No Name Creek to Node 11
11619> #
11620> R0050: CO0039-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11621>      ADD HYD                1.0 02: Dam1         9506.00    18.687 No_date   32:59   29.39  n/a     .000
11622>                         +   1.0 02: SW_11         500.00     9.061 No_date   29:21   31.73  n/a     .000
11623>                         +   1.0 02: NN_CK        1917.00    12.342 No_date   34:26   31.73  n/a     .000
11624>                     SUM=    1.0 01: S_N11       11923.00    32.851 No_date   33:00   29.87  n/a     .000
11625> #
11626> # Sum of hydrographs from Node 11 routed to Node 10
11627> # Section 1
11628> #
11629> R0050: CO0040-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11630>      ROUTE CHANNEL     ->     1.0 02: S_N11       11923.00    32.851 No_date   33:00   29.87  n/a     .000
11631>        [ RDT= 1.00] out <-    1.0 01: N10         11923.00    20.490 No_date   40:02   29.87  n/a     .000
11632>        [ L/ S/ n=14028./ . 157/ . 040]
11633>        [ Vmx=  .474: Dmx= 1. 423]
11634> #
11635> # Addition of Subwatershed 10 to Node 10
11636> #
11637> R0050: CO0041-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11638>      ADD HYD                1.0 02: N10         11923.00    20.490 No_date   40:02   29.87  n/a     .000
11639>                         +   1.0 02: SW_10        5666.00    32.402 No_date   37:52   36.85  n/a     .000
11640>                     SUM=    1.0 01: S_N10       17589.00    52.600 No_date   38:19   32.12  n/a     .000
11641> R0050: CO0042-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11642>      SAVE HYD               1.0 01: S_N10       17589.00    52.600 No_date   38:19   32.12  n/a     .000
11643>        fname : H_SN10
11644>        remark: flow at S_N10:  N10 + SW10
11645> # Addition of Kings Creek to S_N10
11646> #
11647> R0050: CO0043-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11648>      ADD HYD               1.0 02: N10         17589.00    52.600 No_date   38:19   32.12  n/a     .000
11649>                         +   1.0 02: KG_CK        8376.00    31.024 No_date   39:59   31.73  n/a     .000
11650>                     SUM=    1.0 01: S_N10A      25965.00    82.746 No_date   39:45   31.99  n/a     .000
11651> #
11652> # Sum of hydrographs from Node 10 routed to Node 9
11653> # Section 2
11654> #
11655> R0050: CO0044-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11656>      ROUTE CHANNEL     ->     1.0 02: S_N10A      25965.00    82.746 No_date   39:45   31.99  n/a     .000
11657>        [ RDT= 1.00] out <-    1.0 01: N9          25965.00    80.980 No_date   39:59   31.99  n/a     .000
11658>        [ L/ S/ n= 3982./ . 075/ . 040]
11659>        [ Vmx=  . 744: Dmx= 2. 015]
11660> #
11661> # Addition of Subwatershed 9 and Nichols Creek to Node 9
11662> #
11663> R0050: CO0045-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11664>      ADD HYD                1.0 02: N9          25965.00    80.980 No_date   39:59   31.99  n/a     .000
11665>                         +   1.0 02: SW_9         1132.00    14.039 No_date   30:53   35.35  n/a     .000
11666>                         +   1.0 02: NC_CK        1464.00    15.472 No_date   39:59   28.95  n/a     .000
11667>                     SUM=    1.0 01: S_N9        31561.00    99.424 No_date   39:59   31.68  n/a     .000
11668> #
11669> # Sum of hydrographs from Node 9 routed to Node 8
11670> # Section 3
11671> #
11672> R0050: CO0046-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11673>      ROUTE CHANNEL     ->     1.0 02: S_N9        31561.00    99.424 No_date   39:59   31.68  n/a     .000
11674>        [ RDT= 1.00] out <-    1.0 01: N8          31561.00    93.665 No_date   39:59   31.68  n/a     .000
11675>        [ L/ S/ n= 2269./ . 088/ . 045]
11676>        [ Vmx=  . 367: Dmx= 1. 834]
11677> #
11678> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
11679> #
11680> R0050: CO0047-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11681>      ADD HYD                1.0 02: N8          31561.00    93.665 No_date   39:59   31.68  n/a     .000
11682>                         +   1.0 02: SW_8          131.00     2.740 No_date   28:57   29.64  n/a     .000
11683>                         +   1.0 02: HB_DR        3854.00    18.180 No_date   38:32   31.73  n/a     .000
11684>                     SUM=    1.0 01: S_N8        35546.00   111.843 No_date   39:59   31.68  n/a     .000
11685> #
11686> # Sum of hydrographs from Node 8 routed to Node 7
11687> # Section 4
11688> #
11689> R0050: CO0048-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11690>      ROUTE CHANNEL     ->     1.0 02: S_N8        35546.00   111.843 No_date   39:59   31.68  n/a     .000
11691>        [ RDT= 1.00] out <-    1.0 01: N7          35546.00    95.475 No_date   44:55   31.68  n/a     .000
11692>        [ L/ S/ n= 3750./ . 053/ . 070]
11693>        [ Vmx=  . 231: Dmx= 2. 290]
11694> #
11695> # Addition of Subwatershed 7 to Node 7
11696> #
11697> R0050: CO0049-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11698>      ADD HYD                1.0 02: N7          35546.00    95.475 No_date   44:55   31.68  n/a     .000
11699>                         +   1.0 02: SW_7         3197.00    13.937 No_date   36:23   25.61  n/a     .000
11700>                     SUM=    1.0 01: S_N7        38743.00   102.892 No_date   43:46   31.18  n/a     .000
11701> R0050: CO0050-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11702>      SAVE HYD               1.0 01: S_N7        38743.00   102.892 No_date   43:46   31.18  n/a     .000
11703>        fname : H_SN7
11704>        remark: flow at S_N7:  N7 + SW_7
11705> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
11706> # Storage area and volumes were estimated from available topo maps.
11707> # Release rate from Fen was assumed to be controlled by the downstream
11708> # river cross-section for summer conditions.  It is was assumed that for up to
11709> # 0.75 m of water, the main channel of the river provided the storage.  Above
11710> # this depth, the wetland starts to significantly store water.
11711> #
11712> R0050: CO0051-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11713>      ROUTE RESERVOIR ->     1.0 02: S_N7        38743.00   102.892 No_date   43:46   31.18  n/a     .000
11714>                       out <=   1.0 01: RES_RF     38743.00    52.029 No_date   59:07   31.18  n/a     .000
11715>        [ MaSt oRed= 4394E+03  m3]
11716> R0050: CO0052-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11717>      SAVE HYD               1.0 01: RES_RF      38743.00    52.029 No_date   59:07   31.18  n/a     .000
11718>        fname : H_ResRF
11719>        remark: outflow of Richmond Fen
11720> #
11721> # Sum of hydrographs from Node 7 routed to Node 6
11722> # Section 5
11723> #
11724> R0050: CO0053-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11725>      ROUTE CHANNEL     ->     1.0 02: RES_RF      38743.00    52.029 No_date   59:07   31.18  n/a     .000
11726>        [ RDT= 1.00] out <-    1.0 01: N6          38743.00    51.784 No_date   60:27   31.18  n/a     .000
11727>        [ L/ S/ n= 3056./ . 082/ . 025]
11728>        [ Vmx=  . 538: Dmx= 1. 253]
11729> #
11730> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
11731> #
11732> R0050: CO0054-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11733>      ADD HYD                1.0 02: N6          38743.00    51.784 No_date   60:27   31.18  n/a     .000
11734>                         +   1.0 02: SW_6         165.00     1.285 No_date   33:02   32.44  n/a     .000
11735>                         +   1.0 02: VG_DR        1332.00     9.332 No_date   35:12   36.85  n/a     .000
11736>                     SUM=    1.0 01: S_N6        40240.01    51.810 No_date   60:20   31.37  n/a     .000
11737> #
11738> # Sum of hydrographs from Node 6 routed to Node 5
11739> # Section 6
11740> #
11741> R0050: CO0055-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11742>      ROUTE CHANNEL     ->     1.0 02: S_N6        40240.01    51.810 No_date   60:20   31.37  n/a     .000
11743>        [ RDT= 1.00] out <-    1.0 01: N5          40240.01    51.693 No_date   61:06   31.37  n/a     .000
11744>        [ L/ S/ n= 1852./ . 054/ . 035]
11745>        [ Vmx=  . 469: Dmx= 1. 351]
11746> #
11747> # Addition of Subwatershed 5 and Flowing Creek to Node 5
11748> #
11749> R0050: CO0056-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11750>      ADD HYD                1.0 02: N5          40240.01    51.693 No_date   61:06   31.37  n/a     .000
11751>                         +   1.0 02: SW_5         224.00     8.187 No_date   28:45   41.51  n/a     .000
11752>                         +   1.0 02: FL_CK        4945.00    44.623 No_date   33:18   38.37  n/a     .000
11753>                     SUM=    1.0 01: S_N5        45409.01    71.514 No_date   34:20   32.18  n/a     .000
11754> #
11755> # Sum of hydrographs from Node 5 routed to Node 5A
11756> # Section 7
11757> #
11758> R0050: CO0057-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11759>      ROUTE CHANNEL     ->     1.0 02: S_N5        45409.01    71.514 No_date   34:20   32.18  n/a     .000
11760>        [ RDT= 1.00] out <-    1.0 01: N5A         45409.01    71.311 No_date   34:15   32.18  n/a     .000
11761>        [ L/ S/ n=  556./ . 090/ . 040]
11762>        [ Vmx=  . 530: Dmx= 1. 290]
11763> #
11764> # Addition of Subwatershed 5Al and Subwatershed 5A2 to Node 5A
11765> #
11766> R0050: CO0058-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11767>      ADD HYD                1.0 02: N5A         45409.01    71.311 No_date   34:15   32.18  n/a     .000
11768>                         +   1.0 02: SW_5A2         20.00      .943 No_date   28:35   45.60  n/a     .000
11769>                         +   1.0 02: SW_5Al       1412.00     8.794 No_date   37:48   39.93  n/a     .000
11770>                     SUM=    1.0 01: S_N5A       46841.01    79.247 No_date   34:46   32.42  n/a     .000
11771> #
11772> # Sum of hydrographs from Node 5A routed to Node 4
11773> # Section 8
11774> #
11775> R0050: CO0059-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11776>      ROUTE CHANNEL     ->     1.0 02: S_N5A       46841.01    79.247 No_date   34:46   32.42  n/a     .000
11777>        [ RDT= 1.00] out <-    1.0 01: N4          46841.01    75.833 No_date   36:02   32.42  n/a     .000
11778>        [ L/ S/ n= 4630./ . 043/ . 035]
11779>        [ Vmx=  . 874: Dmx= 3. 702]
11780> #
11781> # Addition of Subwatershed 4 and Leamy Creek to Node 4
11782> #
11783> R0050: CO0060-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11784>      ADD HYD                1.0 02: N4          46841.01    75.833 No_date   36:02   32.42  n/a     .000
11785>                         +   1.0 02: SW_4         585.00    12.896 No_date   29:55   45.60  n/a     .000
11786>                         +   1.0 02: LM_CK        1021.00    17.059 No_date   30:46   44.77  n/a     .000
11787>                     SUM=    1.0 01: S_N4        48447.00    84.908 No_date   35:20   32.84  n/a     .000
11788> R0050: CO0061-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11789>      SAVE HYD               1.0 01: S_N4        48447.00    84.908 No_date   35:20   32.84  n/a     .000
11790>        fname : S_N4. 0050
11791>        remark: flow at S_N4
11792> #
11793> # Sum of hydrographs from Node 4 routed to Node 2
11794> # Section 9
11795> #
11796> R0050: CO0062-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11797>      ROUTE CHANNEL     ->     1.0 02: S_N4        48447.00    84.908 No_date   35:20   32.84  n/a     .000
11798>        [ RDT= 1.00] out <-    1.0 01: N2          48447.00    84.582 No_date   35:30   32.84  n/a     .000
11799>        [ L/ S/ n= 1667./ . 060/ . 040]
11800>        [ Vmx=  . 909: Dmx= 3. 749]
11801> #
11802> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
11803> #
11804> R0050: CO0063-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11805>      ADD HYD                1.0 02: N2          48447.00    84.582 No_date   35:30   32.84  n/a     .000
11806>                         +   1.0 02: SW_2         177.00     6.469 No_date   28:45   41.51  n/a     .000
11807>                         +   1.0 02: SM_DR        1122.00    15.544 No_date   31:43   45.60  n/a     .000
11808>                         +   1.0 02: MO_DR        2737.00    34.946 No_date   31:29   40.72  n/a     .000
11809>                     SUM=    1.0 01: S_N2        52483.00   124.249 No_date   32:52   33.56  n/a     .000
11810> R0050: CO0064-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11811>      SAVE HYD               1.0 01: S_N2        52483.00   124.249 No_date   32:52   33.56  n/a     .000
11812>        fname : H_SN2
11813>        remark: flow at S_N2 Jock River Gauge at Moodie Dr.
11814> #
11815> # Sum of hydrographs from Node 2 routed to Node 1
11816> # Section 10
11817> #
11818> #*******************************************************************************
11819> #
11820> # Hydrograph from Node 2 routed to Node 416
11821> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
11822> #
11823> R0050: CO0065-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11824>      ROUTE CHANNEL     ->     1.0 02: S_N2        52483.00   124.249 No_date   32:52   33.56  n/a     .000
11825>        [ RDT= 1.00] out <-    1.0 01: N_416       52483.00   120.589 No_date   33:57   33.56  n/a     .000
11826>        [ L/ S/ n= 2327./ . 050/ . 055]
11827>        [ Vmx=  . 781: Dmx= 3. 561]
11828> #*******************************************************************************
11829> #    Catchment SW1a
11830> #    - Portion of RVCA catchment SW1 outside of Reach 1 subwatershed
11831> #    - Undeveloped agricultural land
11832> #*******************************************************************************
11833> R0050: CO0066-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11834>      CONTINUOUS NASHYD      1.0 01: SW1a        536.42     6.175 No_date   31:15   35.39  .434     .000
11835>        [ CN= 72. 0: N= 3. 00: Tp=  . 59]
11836>        [ IaREC= 4. 00: SMN= 39. 75: SMX= 264. 99: SK=  . 010]
11837>        [ InterEventTime=  12. 00]
11838> R0050: CO0067-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11839>      CONTINUOUS STANDHYD    1.0 01: S-1- Okeefe  44.93     7.341 No_date   28:03   63.95  .785     .000
11840>        [ XIMP= . 65: TIMP= . 65]
11841>        [ LOSS= 2 : CN= 75. 0]
11842>        [ Pervious      area:  IAper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
11843>        [ Impervious    area:  IAimp= 1. 57: SLPI= . 75: LGI= 547. : MNI= . 013: SCI=    . 0]
11844>        [ IaRECimp=   4. 00:  IaRECper=   4. 00]
11845>        [ SMN= 33. 81:  SMX= 225. 43:  SK=  . 010]
11846> R0050: CO0068-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11847>      COMPUTE DUALHYD        1.0 01: S-1- Okeefe  44.93     7.341 No_date   28:03   63.95  n/a     .000
11848>        Major System    /     1.0 02: S-1- OkM     .00      .000 No_date    0:00     .00  n/a     .000
11849>        Minor System    \     1.0 03: S-1- OkMN    44.93     4.591 No_date   27:54   64.28  n/a     .000
11850>        [ MjSysSt or= 1733E+04,  Tot Or f Vol =  0000E+00,  N- Or f =     0,  Tot Dar Or f =     0. hrs]
11851> R0050: CO0069-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11852>      ADD HYD                1.0 02: S-1- OkM     .00      .000 No_date    0:00     .00  n/a     .000
11853>                         +   1.0 02: S-1- OkMN    44.93     4.591 No_date   27:54   64.28  n/a     .000
11854>                     SUM=    1.0 01: S-1- OkS     44.93     4.591 No_date   27:54   64.28  n/a     .000
11855> R0050: CO0070-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11856>      ROUTE RESERVOIR ->     1.0 02: S-1- OkS     44.93     4.591 No_date   27:54   64.28  n/a     .000
11857>                       out <=   1.0 01: S-1- OkSR    44.93      .521 No_date   29:25   64.28  n/a     .000
11858>              overflow <=   1.0 03: S-1- OkSovf     .00      .000 No_date    0:00     .00  n/a     .000
11859>        [ MxSt oSxed=. 1739E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f =     0,  Tot Dar Or f =     0. hrs]
11860> R0050: CO0071-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11861>      ADD HYD                1.0 02: N_416       52483.00   120.589 No_date   33:57   33.56  n/a     .000
11862>                         +   1.0 02: SW_1a        536.42     6.175 No_date   31:15   35.39  n/a     .000
11863>                         +   1.0 02: S-1- OkSR      44.93      .521 No_date   29:25   64.28  n/a     .000
11864>                         +   1.0 02: S-1- OkSovf     .00      .000 No_date    0:00     .00  n/a     .000
11865>                     SUM=    1.0 01: SN_416      53064.36   125.710 No_date   33:19   33.60  n/a     .000
11866> R0050: CO0072-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11867>      SAVE HYD               1.0 01: SN_416      53064.36   125.710 No_date   33:19   33.60  n/a     .000
11868>        fname : SN_416. 0050
11869>        remark: Total Flows at Highway 416 before Station 7245
11870> #
11871> # Hydrograph from Node 416 routed to Node at Okeefe drain
11872> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
11873> #
11874> R0050: CO0073-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11875>      ROUTE CHANNEL     ->     1.0 02: SN_416      53064.36   125.710 No_date   33:19   33.60  n/a     .000
11876>        [ RDT= 1.00] out <-    1.0 01: N_OK        53064.36   125.608 No_date   33:43   33.60  n/a     .000
11877>        [ L/ S/ n=  497./ . 302/ . 055]
11878>        [ Vmx=  1. 650: Dmx= 3. 041]
11879> #*******************************************************************************
11880> #    Catchment OKEEFE
11881> #    - To O'Keefe drain (north of the Jock)
11882> #    - Developed with assumed 43% imp.
11883> #    - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
11884> #    - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Citi-Gate 2014).
11885> #*******************************************************************************
11886> R0050: CO0074-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11887>      CONTINUOUS NASHYD      1.0 01: O-1          63.72     1.147 No_date   28:58   26.31  .323     .000
11888>        [ CN= 61. 0: N= 3. 00: Tp=  . 90]
11889>        [ IaREC= 4. 00: SMN= 64. 50: SMX= 430. 01: SK=  . 010]
11890>        [ InterEventTime=  12. 00]
11891> R0050: CO0075-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11892>      ROUTE CHANNEL     ->     1.0 02: O-1          63.72     1.147 No_date   28:58   26.31  n/a     .000
11893>        [ RDT= 1.00] out <-    1.0 01: O-1R         63.72     1.084 No_date   29:14   26.31  n/a     .000
11894>        [ L/ S/ n=  960./ . 630/ . 043]
11895>        [ Vmx=  . 880: Dmx=  . 445]
11896> R0050: CO0076-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11897>      CONTINUOUS NASHYD      1.0 01: O-2          28.61      .404 No_date   29:13   24.30  .298     .000
11898>        [ CN= 57. 0: N= 3. 00: Tp= 1. 10]
11899>        [ IaREC= 4. 00: SMN= 76. 32: SMX= 508. 81: SK=  . 010]
11900>        [ InterEventTime=  12. 00]
11901> R0050: CO0077-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11902>      CONTINUOUS NASHYD      1.0 01: O-4          46.94      .531 No_date   29:00   18.55  .228     .000
11903>        [ CN= 49. 0: N= 3. 00: Tp=  . 90]
11904>        [ IaREC= 4. 00: SMN= 104. 59: SMX= 697. 25: SK=  . 010]
11905>        [ InterEventTime=  12. 00]
11906> R0050: CO0078-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11907>      ADD HYD                1.0 02: O-1R         63.72     1.084 No_date   29:14   26.31  n/a     .000
11908>                         +   1.0 02: O-2          28.61      .404 No_date   29:13   24.30  n/a     .000
11909>                         +   1.0 02: O-4          46.94      .531 No_date   29:00   18.55  n/a     .000
11910>                     SUM=    1.0 01: OKF-N       139.27     2.005 No_date   29:11   23.28  n/a     .000
11911> R0050: CO0079-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11912>      ROUTE CHANNEL     ->     1.0 02: OKF-N       139.27     2.005 No_date   29:11   23.28  n/a     .000
11913>        [ RDT= 1.00] out <-    1.0 01: OKF-NR      139.27     2.004 No_date   29:13   23.28  n/a     .000
11914>        [ L/ S/ n=  210./ . 810/ . 043]
11915>        [ Vmx=  1. 081: Dmx=  . 751]
11916> R0050: CO0080-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11917>      CONTINUOUS NASHYD      1.0 01: O-6          16.46      .179 No_date   28:45   15.94  .196     .000
11918>        [ CN= 43. 0: N= 3. 00: Tp=  . 70]
11919>        [ IaREC= 4. 00: SMN= 134. 47: SMX= 896. 47: SK=  . 010]
11920>        [ InterEventTime=  12. 00]
11921> R0050: CO0081-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11922>      CONTINUOUS STANDHYD    1.0 01: O-3          39.67     1.212 No_date   28:22   28.54  .350     .000
11923>        [ XIMP= . 15: TIMP= . 30]
11924>        [ LOSS= 2 : CN= 50. 0]
11925>        [ Pervious      area:  IAper= 4. 67: SLPP=  . 32: LGP= 440. : MNP= . 035: SCP=    . 0]
11926>        [ Impervious    area:  IAimp= 1. 57: SLPI=  . 32: LGI= 1880. : MNI= . 013: SCI=    . 0]
11927>        [ IaRECimp=   4. 00:  IaRECper=   4. 00]
11928>        [ SMN= 99. 77:  SMX= 665. 12:  SK=  . 010]
11929> R0050: CO0082-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11930>      CONTINUOUS STANDHYD    1.0 01: O-5          60.63     3.085 No_date   28:10   32.89  .403     .000
11931>        [ XIMP= . 13: TIMP= . 26]
11932>        [ LOSS= 2 : CN= 61. 0]
11933>        [ Pervious      area:  IAper= 4. 67: SLPP=1. 38: LGP=  550. : MNP= . 035: SCP=    . 0]
11934>        [ Impervious    area:  IAimp= 1. 57: SLPI=1. 38: LGI=1450. : MNI= . 013: SCI=    . 0]
11935>        [ IaRECimp=   4. 00:  IaRECper=   4. 00]
11936>        [ SMN= 64. 50:  SMX= 430. 01:  SK=  . 010]
11937> R0050: CO0083-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11938>      ADD HYD                1.0 02: OKF-NR      139.27     2.004 No_date   29:13   23.28  n/a     .000
11939>                         +   1.0 02: O-3          39.67     1.212 No_date   28:22   28.54  n/a     .000
11940>                         +   1.0 02: O-5          60.63     3.085 No_date   28:10   32.89  n/a     .000
11941>                         +   1.0 02: O-6          16.46      .179 No_date   28:45   15.94  n/a     .000
11942>                     SUM=    1.0 01: PT1         256.03     4.968 No_date   28:20   25.90  n/a     .000
11943> R0050: CO0084-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11944>      CONTINUOUS NASHYD      1.0 01: O-7           5.28      .096 No_date   28:37   21.46  .263     .000
11945>        [ CN= 54. 0: N= 3. 00: Tp=  . 60]
11946>        [ IaREC= 4. 00: SMN= 87. 01: SMX= 580. 07: SK=  . 010]
11947>        [ InterEventTime=  12. 00]
11948> R0050: CO0085-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11949>      ADD HYD                1.0 02: PT1         256.03     4.968 No_date   28:20   25.90  n/a     .000
11950>                         +   1.0 02: O-7           5.28      .096 No_date   28:37   21.46  n/a     .000
11951>                     SUM=    1.0 01: FF          261.31     5.051 No_date   28:20   25.81  n/a     .000
11952> R0050: CO0086-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11953>      ROUTE CHANNEL     ->     1.0 02: FF          261.31     5.051 No_date   28:20   25.81  n/a     .000
11954>        [ RDT= 1.00] out <-    1.0 01: DRAI NI     261.31     4.883 No_date   28:25   25.81  n/a     .000
11955>        [ L/ S/ n=  302./ 1. 000/ . 043]
11956>        [ Vmx=  . 822: Dmx=  . 759]
11957> R0050: CO0087-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11958>      CONTINUOUS NASHYD      1.0 01: DI            1.17      .094 No_date   28:12   43.70  .536     .000
11959>        [ CN= 84. 0: N= 3. 00: Tp=  . 28]
11960>        [ IaREC= 4. 00: SMN= 21. 09: SMX= 140. 62: SK=  . 010]
11961>        [ InterEventTime=  12. 00]
11962> R0050: CO0088-------------DTmin- ID: NHYD---------AREAha- QPEAKcms- TpeakDate_hh: mm----RVmm R. C.----DWFcms
11963>      CONTINUOUS STANDHYD    1.0 01: AI           2.50      .517 No_date   28:01   64.42  .790     .000
11964>        [ XIMP= . 68: TIMP= . 85]
11965>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    Fe=  . 00]
11966>        [ Pervious      area:  IAper= 4. 67: SLPP=  . 50: LGP=   50. : MNP= . 250: SCP=    . 0]
11967>        [ Impervious    area:  IAimp= 1. 57: SLPI=  . 50: LGI=  224. : MNI= . 013: SCI=    . 0]
11968>        [ IaRECimp=   4. 00:  IaRECper=   4. 00]
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11969> R0050: C00089 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
11970>     ROUTE RESERVOIR  ->      1. 0  02: AI          2. 50        . 517  No_date   28: 01    64. 42   n/a       .000
11971>                      out <=  1. 0  01: AI - STR    2. 50        . 146  No_date   28: 19    64. 42   n/a       .000
11972>                overflow <=   1. 0  03: AI - OVF      .00        .000  No_date    0: 00      .00   n/a       .000
11973>  {MkSt olked= 7243E- 01   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
11974> R0050: C00090 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
11975>     CONTI NUOUS  STANDHYD    1. 0  01: ST- 2          . 59        . 103  No_date   28: 00    50. 67   . 622     .000
11976>      [ XI MP= 46: TI MP= 57]
11977>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
11978>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
11979>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  109. : MNI = 013: SCI =    . 0]
11980>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
11981> R0050: C00091 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
11982>     ROUTE RESERVOIR  ->      1. 0  02: ST- 2          . 59        . 103  No_date   28: 00    50. 67   n/a       .000
11983>                      out <=  1. 0  02: ST2STR         . 59        . 052  No_date   28: 11    50. 67   n/a       .000
11984>                overflow <=   1. 0  03: ST2OVF        .00        .000  No_date    0: 00      .00   n/a       .000
11985>  {MkSt olked= 3952E- 02   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
11986> R0050: C00092 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
11987>     CONTI NUOUS  NASHYD      1. 0  01: O- 8           60. 55      1. 383  No_date   29: 04    33. 66   . 413     .000
11988>      [ CN= 69. 0:  N= 3. 00:  Tp=  1. 00]
11989>      [ I aREC= 4. 00:  SMN= 44. 82:  SMX= 298. 82:  SK=  . 010]
11990>      [ I nt erEvent Ti me=  12. 00]
11991> R0050: C00093 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
11992>     ROUTE PI PE      ->      1. 0  02: O- 8           60. 55      1. 383  No_date   29: 04    33. 66   n/a       .000
11993>      [ RDT= 1. 00]  out <-    1. 0  01: OR PI PE       60. 55      1. 376  No_date   29: 07    33. 66   n/a       .000
11994>      [ L/ S/ n=  335. / . 100/ . 013]
11995>      [ Vmax=  1. 244:  Dmax=  . 617]
11996>      [ HGHT=  1. 20:  WDTH=  1. 80]
11997> R0050: C00094 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
11998>     ADD HYD                  1. 0  02: DRAI N1       261. 31      4. 883  No_date   28: 25    25. 81   n/a       .000
11999>                          +    1. 0  02: DI            1. 17       . 094  No_date   28: 12    43. 70   n/a       .000
12000>                          +    1. 0  02: AI - STR      2. 50       . 146  No_date   28: 19    64. 42   n/a       .000
12001>                          +    1. 0  02: AI - OVF       .00       .000  No_date    0: 00      .00   n/a       .000
12002>                          +    1. 0  02: ST2STR        . 59       . 052  No_date   28: 11    50. 67   n/a       .000
12003>                          +    1. 0  02: ST2OVF        .00       .000  No_date    0: 00      .00   n/a       .000
12004>                          +    1. 0  02: OR PI PE      60. 55      1. 376  No_date   29: 07    33. 66   n/a       .000
12005>                      SUM=     1. 0  01: ST2- I N      326. 12     6. 061  No_date   28: 35    27. 67   n/a       .000
12006> R0050: C00095 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12007>     CONTI NUOUS  STANDHYD    1. 0  01: AI - 7          3. 51       . 704  No_date   28: 01    64. 42   . 790     .000
12008>      [ XI MP= 68: TI MP= 85]
12009>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12010>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12011>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  265. : MNI = 013: SCI =    . 0]
12012>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12013> R0050: C00096 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12014>     ROUTE RESERVOIR  ->      1. 0  02: AI          3. 51       . 704  No_date   28: 01    64. 42   n/a       .000
12015>                      out <=  1. 0  01: AI - STR      3. 51       . 199  No_date   28: 21    64. 42   n/a       .000
12016>                overflow <=   1. 0  03: AI - OVF       .00       .000  No_date    0: 00      .00   n/a       .000
12017>  {MkSt olked= 1019E+ 00   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12018> R0050: C00097 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12019>     CONTI NUOUS  STANDHYD    1. 0  01: ST- 3          . 71        . 123  No_date   28: 00    50. 67   . 622     .000
12020>      [ XI MP= 46: TI MP= 57]
12021>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12022>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12023>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  119. : MNI = 013: SCI =    . 0]
12024>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12025> R0050: C00098 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12026>     ROUTE RESERVOIR  ->      1. 0  02: ST- 3          . 71        . 123  No_date   28: 00    50. 67   n/a       .000
12027>                      out <=  1. 0  01: ST3STR        . 71        . 063  No_date   28: 11    50. 67   n/a       .000
12028>                overflow <=   1. 0  03: ST3OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12029>  {MkSt olked= 4527E- 02   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12030> R0050: C00099 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12031>     ADD HYD                  1. 0  02: ST2- I N      326. 12     6. 061  No_date   28: 35    27. 67   n/a       .000
12032>                          +    1. 0  02: AI - STR      3. 51       . 199  No_date   28: 21    64. 42   n/a       .000
12033>                          +    1. 0  02: AI - OVF       .00       .000  No_date    0: 00      .00   n/a       .000
12034>                          +    1. 0  02: ST3STR        . 71       . 063  No_date   28: 11    50. 67   n/a       .000
12035>                          +    1. 0  02: ST3OVF        .00       .000  No_date    0: 00      .00   n/a       .000
12036>                      SUM=     1. 0  01: PT2ST3      330. 34     6. 299  No_date   28: 33    28. 11   n/a       .000
12037> R0050: C00100 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12038>     ROUTE CHANNEL    ->      1. 0  02: PT2ST3      330. 34     6. 299  No_date   28: 33    28. 11   n/a       .000
12039>      [ RDT= 1. 00]  out <-    1. 0  01: DRAI N2       330. 34     5. 789  No_date   28: 58    28. 11   n/a       .000
12040>      [ L/ S/ n=  592. / . 230/ . 043]
12041>      [ Vmax=  . 593:  Dmax=  1. 152]
12042> R0050: C00101 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12043>     CONTI NUOUS  NASHYD      1. 0  01: D2            2. 28       . 074  No_date   29: 02    43. 70   . 536     .000
12044>      [ CN= 84. 0:  N= 3. 00:  Tp=  . 99]
12045>      [ I aREC= 4. 00:  SMN= 21. 09:  SMX= 140. 62:  SK=  . 010]
12046>      [ I nt erEvent Ti me=  12. 00]
12047> R0050: C00102 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12048>     CONTI NUOUS  STANDHYD    1. 0  01: AI 7          12. 04      2. 163  No_date   28: 03    64. 42   . 790     .000
12049>      [ XI MP= 68: TI MP= 85]
12050>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12051>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12052>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  491. : MNI = 013: SCI =    . 0]
12053>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12054> R0050: C00103 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12055>     ROUTE RESERVOIR  ->      1. 0  02: AI 7          12. 04      2. 163  No_date   28: 03    64. 42   n/a       .000
12056>                      out <=  1. 0  01: AI 7STR       12. 04      . 654  No_date   28: 27    64. 42   n/a       .000
12057>                overflow <=   1. 0  03: AI 7OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12058>  {MkSt olked= 3445E+ 00   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12059> R0050: C00104 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12060>     CONTI NUOUS  STANDHYD    1. 0  01: ST- 4          . 35        . 063  No_date   28: 00    50. 67   . 622     .000
12061>      [ XI MP= 46: TI MP= 57]
12062>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12063>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12064>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  84. : MNI = 013: SCI =    . 0]
12065>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12066> R0050: C00105 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12067>     ROUTE RESERVOIR  ->      1. 0  02: ST- 4          . 35        . 063  No_date   28: 00    50. 67   n/a       .000
12068>                      out <=  1. 0  01: ST4STR        . 35        . 031  No_date   28: 18    50. 67   n/a       .000
12069>                overflow <=   1. 0  03: ST4OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12070>  {MkSt olked= 2719E- 02   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12071> R0050: C00106 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12072>     CONTI NUOUS  STANDHYD    1. 0  01: AI 8          5. 30      1. 036  No_date   28: 01    64. 42   . 790     .000
12073>      [ XI MP= 68: TI MP= 85]
12074>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12075>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12076>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  326. : MNI = 013: SCI =    . 0]
12077>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12078> R0050: C00107 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12079>     ROUTE RESERVOIR  ->      1. 0  02: AI 8          5. 30      1. 036  No_date   28: 01    64. 42   n/a       .000
12080>                      out <=  1. 0  01: AI 8STR       5. 30       . 300  No_date   28: 22    64. 42   n/a       .000
12081>                overflow <=   1. 0  03: AI 8OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12082>  {MkSt olked= 1532E+ 00   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12083> R0050: C00108 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12084>     ADD HYD                  1. 0  02: DRAI N2       330. 34     5. 789  No_date   28: 58    28. 11   n/a       .000
12085>                          +    1. 0  02: D2            2. 28       . 074  No_date   29: 02    43. 70   n/a       .000
12086>                          +    1. 0  02: AI 7STR       12. 04      . 654  No_date   28: 27    64. 42   n/a       .000
12087>                          +    1. 0  02: AI 7OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12088>                          +    1. 0  02: ST4STR         . 35       . 031  No_date   28: 10    50. 67   n/a       .000
12089>                          +    1. 0  02: ST4OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12090>                          +    1. 0  02: AI 8STR       5. 30       . 300  No_date   28: 22    64. 42   n/a       .000
12091>                          +    1. 0  02: AI 8OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12092>                      SUM=     1. 0  01: PT3ST4      350. 31     6. 632  No_date   28: 55    30. 03   n/a       .000
12093> R0050: C00109 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12094>     ROUTE CHANNEL    ->      1. 0  02: PT3ST4      350. 31     6. 632  No_date   28: 55    30. 03   n/a       .000
12095>      [ RDT= 1. 00]  out <-    1. 0  01: DRAI N3       350. 31     6. 350  No_date   29: 11    30. 03   n/a       .000
12096>      [ L/ S/ n=  525. / . 230/ . 043]
12097>      [ Vmax=  . 613:  Dmax=  1. 197]
12098> R0050: C00110 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12099>     CONTI NUOUS  NASHYD      1. 0  01: D3            2. 51       . 113  No_date   28: 43    47. 27   . 580     .000
12100>      [ CN= 86. 0:  N= 3. 00:  Tp=  . 73]
12101>      [ I aREC= 4. 00:  SMN= 17. 43:  SMX= 116. 21:  SK=  . 010]
12102>      [ I nt erEvent Ti me=  12. 00]
12103> R0050: C00111 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12104>     CONTI NUOUS  STANDHYD    1. 0  01: CI            3. 41       . 690  No_date   28: 01    64. 42   . 790     .000
12105>      [ XI MP= 68: TI MP= 85]
12106>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12107>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12108>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  261. : MNI = 013: SCI =    . 0]
12109>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12110> R0050: C00112 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12111>     ROUTE RESERVOIR  ->      1. 0  02: CI            3. 41       . 690  No_date   28: 01    64. 42   n/a       .000
12112>                      out <=  1. 0  01: CI - STR      3. 41       . 194  No_date   28: 20    64. 42   n/a       .000
12113>                overflow <=   1. 0  03: CI - OVF       .00       .000  No_date    0: 00      .00   n/a       .000
12114>  {MkSt olked= 9900E- 01   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12115> R0050: C00113 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12116>     CONTI NUOUS  STANDHYD    1. 0  01: ST- 5          . 45        . 079  No_date   28: 00    50. 67   . 622     .000
12117>      [ XI MP= 46: TI MP= 57]
12118>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12119>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12120>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  95. : MNI = 013: SCI =    . 0]
12121>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12122> R0050: C00114 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12123>     ROUTE RESERVOIR  ->      1. 0  02: ST- 5          . 45        . 079  No_date   28: 00    50. 67   n/a       .000
12124>                      out <=  1. 0  01: ST5STR        . 45        . 040  No_date   28: 10    50. 67   n/a       .000
12125>                overflow <=   1. 0  03: ST5OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12126>  {MkSt olked= 3164E- 02   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12127> R0050: C00115 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12128>     ADD HYD                  1. 0  02: DRAI N3       350. 31     6. 350  No_date   29: 11    30. 03   n/a       .000
12129>                          +    1. 0  02: D3            2. 51       . 113  No_date   28: 43    47. 27   n/a       .000
12130>                          +    1. 0  02: CI - STR      3. 41       . 194  No_date   28: 20    64. 42   n/a       .000
12131>                          +    1. 0  02: CI - OVF       .00       .000  No_date    0: 00      .00   n/a       .000
12132>                          +    1. 0  02: ST5STR         . 45       . 040  No_date   28: 10    50. 67   n/a       .000
12133>                          +    1. 0  02: ST5OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12134>                      SUM=     1. 0  01: ST5- E       356. 68     6. 575  No_date   29: 09    30. 51   n/a       .000
12135> R0050: C00116 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12136>     CONTI NUOUS  STANDHYD    1. 0  01: STRAND          7. 59      1. 038  No_date   28: 09    62. 95   . 772     .000
12137>      [ XI MP= 64: TI MP= 85]
12138>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12139>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  40. : MNP= 250: SCP=    . 0]
12140>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =1230. : MNI = 013: SCI =    . 0]
12141>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12142> R0050: C00117 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12143>     ROUTE RESERVOIR  ->      1. 0  02: STRAND        7. 59      1. 038  No_date   28: 09    62. 95   n/a       .000
12144>                      out <=  1. 0  01: S- POND       7. 59       . 137  No_date   29: 13    62. 95   n/a       .000
12145>                overflow <=   1. 0  03: S- OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12146>  {MkSt olked= 3159E+ 00   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12147> R0050: C00118 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12148>     ADD HYD                  1. 0  02: ST5- E        356. 68     6. 575  No_date   29: 09    30. 51   n/a       .000
12149>                          +    1. 0  02: S- POND        7. 59       . 137  No_date   29: 13    62. 95   n/a       .000
12150>                          +    1. 0  02: S- OVF         .00        .000  No_date    0: 00      .00   n/a       .000
12151>                      SUM=     1. 0  01: SSAOUT       364. 27     6. 711  No_date   29: 09    31. 19   n/a       .000
12152> R0050: C00119 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12153>     SAVE HYD                 1. 0  01: SSAOUT       364. 27     6. 711  No_date   29: 09    31. 19   n/a       .000
12154>      fname : SSAOUT. 0050
12155>      remark: SSAOUT
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12156> R0050: C00120 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12157>     CONTI NUOUS  STANDHYD    1. 0  01: Area- A          66. 75      8. 917  No_date   28: 08    61. 83   . 759     .000
12158>      [ XI MP= 64: TI MP= 80]
12159>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12160>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12161>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =1155. : MNI = 013: SCI =    . 0]
12162>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12163> R0050: C00121 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12164>     SAVE HYD                 1. 0  01: Area- A          66. 75      8. 917  No_date   28: 08    61. 83   n/a       .000
12165>      fname : Area- A 0050
12166>      remark: SAMF- A I nflow
12167> R0050: C00122 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12168>     ROUTE RESERVOIR  ->      1. 0  02: Area- A          66. 75      8. 917  No_date   28: 08    61. 83   n/a       .000
12169>                      out <=  1. 0  01: SWMF- A          66. 75      1. 070  No_date   29: 16    61. 83   n/a       .000
12170>                overflow <=   1. 0  02: SWMOVF          .00        .000  No_date    0: 00      .00   n/a       .000
12171>  {MkSt olked= 2845E+ 01   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12172> R0050: C00123 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12173>     SAVE HYD                 1. 0  01: SWMF- A          66. 75      1. 070  No_date   29: 16    61. 83   n/a       .000
12174>      fname : SWMF- A 0050
12175>      remark: SAMF- A Out flow
12176> R0050: C00124 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12177>     ADD HYD                  1. 0  02: SSAOUT        364. 27      6. 711  No_date   29: 09    31. 19   n/a       .000
12178>                          +    1. 0  02: SWMF- A        66. 75      1. 070  No_date   29: 16    61. 83   n/a       .000
12179>                          +    1. 0  02: SWMOVF          .00        .000  No_date    0: 00      .00   n/a       .000
12180>                      SUM=     1. 0  01: PT4STS        431. 02      7. 776  No_date   29: 10    35. 93   n/a       .000
12181> R0050: C00125 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12182>     CONTI NUOUS  STANDHYD    1. 0  01: C6              1. 87       . 395  No_date   28: 01    64. 42   . 790     .000
12183>      [ XI MP= 68: TI MP= 85]
12184>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12185>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12186>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  193. : MNI = 013: SCI =    . 0]
12187>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12188> R0050: C00126 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12189>     ROUTE RESERVOIR  ->      1. 0  02: C6              1. 87       . 395  No_date   28: 01    64. 42   n/a       .000
12190>                      out <=  1. 0  01: C6- STR         1. 87       . 110  No_date   28: 18    64. 42   n/a       .000
12191>                overflow <=   1. 0  02: C6- OVF          .00        .000  No_date    0: 00      .00   n/a       .000
12192>  {MkSt olked= 5452E- 01   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12193> R0050: C00127 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12194>     CONTI NUOUS  STANDHYD    1. 0  01: C7              1. 62       . 347  No_date   28: 00    64. 42   . 790     .000
12195>      [ XI MP= 68: TI MP= 85]
12196>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12197>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12198>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  180. : MNI = 013: SCI =    . 0]
12199>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12200> R0050: C00128 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12201>     ROUTE RESERVOIR  ->      1. 0  02: C7              1. 62       . 347  No_date   28: 00    64. 42   n/a       .000
12202>                      out <=  1. 0  01: C7- STR         1. 62       . 096  No_date   28: 17    64. 42   n/a       .000
12203>                overflow <=   1. 0  02: C7- OVF          .00        .000  No_date    0: 00      .00   n/a       .000
12204>  {MkSt olked= 4698E- 01   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12205> R0050: C00129 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12206>     CONTI NUOUS  STANDHYD    1. 0  01: C8               . 41        . 073  No_date   28: 00    50. 67   . 622     .000
12207>      [ XI MP= 46: TI MP= 57]
12208>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12209>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12210>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  91. : MNI = 013: SCI =    . 0]
12211>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12212> R0050: C00130 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12213>     ROUTE RESERVOIR  ->      1. 0  02: ST- 6           . 41        . 073  No_date   28: 00    50. 67   n/a       .000
12214>                      out <=  1. 0  01: ST6STR         . 41        . 036  No_date   28: 10    50. 67   n/a       .000
12215>                overflow <=   1. 0  03: ST6OVF        .00        .000  No_date    0: 00      .00   n/a       .000
12216>  {MkSt olked= 3103E- 02   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12217> R0050: C00131 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12218>     ADD HYD                  1. 0  02: PT4STS        431. 02      7. 776  No_date   29: 10    35. 93   n/a       .000
12219>                          +    1. 0  02: C6- STR         1. 87       . 110  No_date   28: 18    64. 42   n/a       .000
12220>                          +    1. 0  02: C6- OVF          .00        .000  No_date    0: 00      .00   n/a       .000
12221>                          +    1. 0  02: C7- STR         1. 62       . 096  No_date   28: 17    64. 42   n/a       .000
12222>                          +    1. 0  02: C7- OVF          .00        .000  No_date    0: 00      .00   n/a       .000
12223>                          +    1. 0  02: ST6STR          .41        .036  No_date   28: 10    50. 67   n/a       .000
12224>                          +    1. 0  02: ST6OVF          .00        .000  No_date    0: 00      .00   n/a       .000
12225>                      SUM=     1. 0  01: PT5STS        434. 92      7. 904  No_date   29: 09    36. 17   n/a       .000
12226> R0050: C00132 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12227>     ROUTE CHANNEL    ->      1. 0  02: PT5STS        434. 92      7. 904  No_date   29: 09    36. 17   n/a       .000
12228>      [ RDT= 1. 00]  out <-    1. 0  01: DRAI N4       434. 92      7. 615  No_date   29: 20    36. 17   n/a       .000
12229>      [ L/ S/ n=  324. / . 100/ . 043]
12230>      [ Vmax=  . 490:  Dmax=  1. 531]
12231> R0050: C00133 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12232>     CONTI NUOUS  NASHYD      1. 0  01: D4              1. 73       . 097  No_date   28: 34    50. 14   . 615     .000
12233>      [ CN= 88. 0:  N= 3. 00:  Tp=  . 60]
12234>      [ I aREC= 4. 00:  SMN= 14. 94:  SMX= 99. 61:  SK=  . 010]
12235>      [ I nt erEvent Ti me=  12. 00]
12236> R0050: C00134 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12237>     CONTI NUOUS  STANDHYD    1. 0  01: Area- B          24. 04      4. 418  No_date   28: 02    60. 51   . 742     .000
12238>      [ XI MP= 62: TI MP= 77]
12239>      [ Hort on parameters:  Fo= 76. 20: Fc= 13. 20: DCAY= 4. 14:    F= . 00]
12240>      [ Pervious        area:  I Aper= 4. 67: SLPP=  50: LGP=  50. : MNP= 250: SCP=    . 0]
12241>      [ Impervious      area:  I Aimp= 1. 57: SLPI =  50: LGI =  693. : MNI = 013: SCI =    . 0]
12242>      [ I aREC mp=    4. 00:  I aREC per=    4. 00]
12243> R0050: C00135 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12244>     ROUTE RESERVOIR  ->      1. 0  02: Area- B          24. 04      4. 418  No_date   28: 02    60. 51   n/a       .000
12245>                      out <=  1. 0  01: SWMF- B          24. 04       . 566  No_date   28: 42    60. 51   n/a       .000
12246>                overflow <=   1. 0  03: SWMBOVF          .00        .000  No_date    0: 00      .00   n/a       .000
12247>  {MkSt olked= 8944E+ 00   m3,  Tot OvrVol = 0000E+00   m3,  N- Ovf =     0,  Tot Dur Ovf =     0. hrs }
12248> R0050: C00136 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12249>     ADD HYD                  1. 0  02: DRAI N4       434. 92      7. 615  No_date   29: 20    36. 17   n/a       .000
12250>                          +    1. 0  02: D4              1. 73       . 097  No_date   28: 34    50. 14   n/a       .000
12251>                          +    1. 0  02: SWMF- B         24. 04       . 566  No_date   28: 42    60. 51   n/a       .000
12252>                          +    1. 0  02: SWMBOVF          .00        .000  No_date    0: 00      .00   n/a       .000
12253>                      SUM=     1. 0  01: D4- EX        460. 69      8. 190  No_date   29: 19    37. 49   n/a       .000
12254> R0050: C00137 ---------- DTmin - I D: NHYD ---------- AREA ha - QPEAK cms - Tpeak Date_hh: mm ---- RVmm R. C. ---- DWFcms
12255>     ROUTE CHANNEL    ->      1. 0  02: D4- EX        460. 69      8. 190  No_date   29: 19    37. 49   n/a       .000
12256>      [ RDT= 1. 00]  out <-    1. 0  01: DRAI N5       460. 69      8. 038  No_date   29: 27    37. 49   n/a       .000
12257>      [ L/ S/ n=  413. / . 160/ . 033]
12258>      [ Vmax=  . 675:  Dmax=  1. 051]
12259> R0050: C00138 ---------- DTmin - I D: NHYD ---------- AREA
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12343> RO050: C00153-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12344>       ADD HYD                1.0 02: S-1-DSJ          .00       .000 No_date    0:00       .00  n/a      .000
12345>                          +    1.0 02: S-1-DSN         6.79       .831 No_date   27:52     63.98  n/a      .000
12346>                          SUM=  1.0 01: S-1-DSS         6.79       .831 No_date   27:52     63.98  n/a      .000
12347> RO050: C00154-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12348>       ROUTE RESERVOIR -> 1.0 02: S-1-DSS         6.79       .831 No_date   27:52     63.98  n/a      .000
12349>                          out <=  1.0 01: S-1-DSR         6.79       .078 No_date   29:16     63.98  n/a      .000
12350>                          overflow <=  1.0 03: S-1-DSRovf        .00       .000 No_date    0:00       .00  n/a      .000
12351>       {MaStoRed=. 2609Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12352> RO050: C00155-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12353>       ADD HYD                1.0 02: N_OK          53064.36  125.608 No_date   33:43     33.60  n/a      .000
12354>                          +    1.0 02: OKEEFE        488.00     7.533 No_date   29:58     37.86  n/a      .000
12355>                          +    1.0 02: S-1-D2R        18.67      .217 No_date   29:19     64.33  n/a      .000
12356>                          +    1.0 02: S-1-D3R         6.79      .078 No_date   29:16     63.98  n/a      .000
12357>                          +    1.0 02: S-1-D2Rovf       .00       .000 No_date    0:00       .00  n/a      .000
12358>                          +    1.0 02: S-1-D3Rovf       .00       .000 No_date    0:00       .00  n/a      .000
12359>                          SUM=  1.0 01: SN_OK       53577.82  128.466 No_date   33:19     33.65  n/a      .000
12360> RO050: C00156-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12361>       SAVE HYD               1.0 01: SN_OK       53577.82  128.466 No_date   33:19     33.65  n/a      .000
12362>          fname : SN_OK 0050
12363>          remark: Total Flows at Okeefe Drain
12364> #
12365> # Hydrograph from Node Okeefe routed to Node at Foster Drain
12366> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6215
12367> #
12368> RO050: C00157-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12369>       ROUTE CHANNEL  ->      1.0 02: SN_OK       53577.82  128.466 No_date   33:19     33.65  n/a      .000
12370>       [ RDT=  1.00]  out <-  1.0 01: N_FO        53577.82  128.055 No_date   33:44     33.65  n/a      .000
12371>          [ L/ S/ n=  1183. /  .076/ .035]
12372>          [ Vmax=  1.240 Dmax=  3.378]
12373> #*************************************************************************
12374> #     Catchment FOSTER
12375> #   - To Foster (north of the Jock)
12376> #   - Partially developed (medium density); remining agricultural
12377> #   - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
12378> #   - 2020-12-01 decrease Foster drainage area from 373 HA to (307.98 HA) after increasing Okeefe drainage area to (5
12379> #   - 2021-02-12  update Foster area to 325.44 ha as measured from QGIS
12380> #*************************************************************************
12381> RO050: C00158-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12382>       CONTI NUOUS STANDHYD   1.0 01: FOSTER       325.44    32.213 No_date   28:11     58.69  .720      .000
12383>          [ XI M=. 55: TI M=. 55]
12384>          [ LOSS= 2 : CN= 74.0]
12385>          [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
12386>          [ Impervious    area: I Aimp= 1. 57: SLPI=  .50: LGI=1473. : MNI=. 013: SCI=    .0]
12387>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12388>          [ SMI N=  36. 67:  SMAX=244. 49:  SK=  .010]
12389> #*************************************************************************
12390> #     Foster Pond
12391> #   - Rating curve obtained assuming 40m3/ha in 24 hours for quality control
12392> #       and a ratio of the catchment area to the West Clarke pond rating curve
12393> #       from the MSS for the next coordinates
12394> #*************************************************************************
12395> RO050: C00159-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12396>       ROUTE RESERVOIR -> 1.0 02: FOSTER       325.44    32.213 No_date   28:11     58.69  n/a      .000
12397>                          out <=  1.0 01: P_FOS       325.44     8.155 No_date   29:03     58.69  n/a      .000
12398>                          overflow <=  1.0 03: FO-OVF        .00       .000 No_date    0:00       .00  n/a      .000
12399>       {MaStoRed=. 7887Et+01  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12400> RO050: C00160-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12401>       ADD HYD                1.0 02: P_FOS        325.44     8.155 No_date   29:03     58.69  n/a      .000
12402>                          +    1.0 02: FO-OVF         .00       .000 No_date    0:00       .00  n/a      .000
12403>                          SUM=  1.0 01: FOSTER-OUT    325.44     8.155 No_date   29:03     58.69  n/a      .000
12404> #*************************************************************************
12405> RO050: C00161-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12406>       CONTI NUOUS STANDHYD   1.0 01: W_CLAR_BRA    73.29     10.462 No_date   28:05     63.49  n/a      .000
12407>          [ XI M=. 60: TI M=. 65]
12408>          [ LOSS= 2 : CN= 77.0]
12409>          [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12410>          [ Impervious    area: I Aimp= 1. 57: SLPI= . 50: LGI= 699. : MNI=. 013: SCI=    .0]
12411>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12412>          [ SMI N=  31. 15:  SMAX=207. 66:  SK=  .010]
12413> RO050: C00162-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12414>       ROUTE RESERVOIR -> 1.0 02: W_CLAR_BRA    73.29     10.462 No_date   28:05     63.49  n/a      .000
12415>                          out <=  1.0 01: MS_P10       73.29     1.204 No_date   29:09     63.49  n/a      .000
12416>                          overflow <=  1.0 03: P10-OVF        .00       .000 No_date    0:00       .00  n/a      .000
12417>       {MaStoRed=. 1950Et+01  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12418> RO050: C00163-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12419>       CONTI NUOUS STANDHYD   1.0 01: S-1-FO-D2      4.94       .796 No_date   28:01     58.69  .720      .000
12420>          [ XI M=. 55: TI M=. 55]
12421>          [ LOSS= 2 : CN= 74.0]
12422>          [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
12423>          [ Impervious    area: I Aimp= 1. 57: SLPI=  .50: LGI= 181. : MNI=. 013: SCI=    .0]
12424>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12425>          [ SMI N=  36. 67:  SMAX=244. 49:  SK=  .010]
12426> RO050: C00164-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12427>       COMPUTE DUALHYD        1.0 01: S-1-FO-D2      4.94       .796 No_date   28:01     58.69  n/a      .000
12428>          Major System    /   1.0 02: S-1-FO-D2J        .00       .000 No_date    0:00       .00  n/a      .000
12429>          Minor System    \   1.0 03: S-1-FO-D2N       4.94       .508 No_date   27:53     58.77  n/a      .000
12430>          [ MJ SysSto=. 1462Et+03,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs]
12431> RO050: C00165-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12432>       ADD HYD                1.0 02: S-1-FO-D2J        .00       .000 No_date    0:00       .00  n/a      .000
12433>                          +    1.0 02: S-1-FO-D2N       4.94       .508 No_date   27:53     58.77  n/a      .000
12434>                          SUM=  1.0 01: S-1-FO-D2S       4.94       .508 No_date   27:53     58.77  n/a      .000
12435> RO050: C00166-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12436>       ROUTE RESERVOIR -> 1.0 02: S-1-FO-D2S       4.94       .508 No_date   27:53     58.77  n/a      .000
12437>                          out <=  1.0 01: S-1-FO-D2R       4.94       .052 No_date   29:33     58.76  n/a      .000
12438>                          overflow <=  1.0 03: S-1-FOD2ovf        .00       .000 No_date    0:00       .00  n/a      .000
12439>       {MaStoRed=. 1726Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12440> RO050: C00167-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12441>       ADD HYD                1.0 02: FOSTER-OUT    325.44     8.155 No_date   29:03     58.69  n/a      .000
12442>                          +    1.0 02: S-1-FO-D2R       4.94       .052 No_date   29:33     58.76  n/a      .000
12443>                          +    1.0 02: S-1-FOD2ovf        .00       .000 No_date    0:00       .00  n/a      .000
12444>                          SUM=  1.0 01: 980         330.38     8.207 No_date   29:03     58.69  n/a      .000
12445> RO050: C00168-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12446>       SAVE HYD               1.0 01: 980         330.38     8.207 No_date   29:03     58.69  n/a      .000
12447>          fname : 980. 0050
12448>          remark: Total Flows at Station 980 on Foster Drain
12449> #
12450> # Hydrograph from Node Foster SWM ( Station 980) to Node at station 520
12451> # Channel X-Section obtained from RVCA Hydraulic Model - Station 980
12452> #
12453> RO050: C00169-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12454>       ROUTE CHANNEL  ->      1.0 02: 980         330.38     8.207 No_date   29:03     58.69  n/a      .000
12455> *     [ RDT=  1.00]  out <-  1.0 01: 980-out     330.38     7.836 No_date   29:23     58.69  n/a      .000
12456>          [ L/ S/ n=  460. /  .043/ .035]
12457>          [ Vmax=  .595 Dmax=  1. 599]
12458> RO050: C00170-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12459>       CONTI NUOUS STANDHYD   1.0 01: S-1-FO-DI      5.11       .927 No_date   28:00     63.41  .778      .000
12460>          [ XI M=. 65: TI M=. 65]
12461>          [ LOSS= 2 : CN= 74.0]
12462>          [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
12463>          [ Impervious    area: I Aimp= 1. 57: SLPI=  .50: LGI= 185. : MNI=. 013: SCI=    .0]
12464>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12465>          [ SMI N=  36. 67:  SMAX=244. 49:  SK=  .010]
12466> RO050: C00171-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12467>       COMPUTE DUALHYD        1.0 01: S-1-FO-DI      5.11       .927 No_date   28:00     63.41  n/a      .000
12468>          Major System    /   1.0 02: S-1-FO-DIJ        .00       .000 No_date    0:00       .00  n/a      .000
12469>          Minor System    \   1.0 03: S-1-FO-DIN       5.11       .605 No_date   28:17     63.68  n/a      .000
12470>          [ MJ SysSto=. 1586Et+03,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs]
12471> RO050: C00172-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12472>       ADD HYD                1.0 02: S-1-FO-DIN       5.11       .605 No_date   27:53     63.68  n/a      .000
12473>                          +    1.0 02: S-1-FO-DIJ        .00       .000 No_date    0:00       .00  n/a      .000
12474>                          SUM=  1.0 01: S-1-FO-DIS       5.11       .605 No_date   27:53     63.68  n/a      .000
12475> RO050: C00173-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12476>       ROUTE RESERVOIR -> 1.0 02: S-1-FO-DIS       5.11       .605 No_date   27:53     63.68  n/a      .000
12477>                          out <=  1.0 01: S-1-FO-DIR       5.11       .059 No_date   29:23     63.68  n/a      .000
12478>                          overflow <=  1.0 03: S-1-FODIovf        .00       .000 No_date    0:00       .00  n/a      .000
12479>       {MaStoRed=. 1952Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12480> RO050: C00174-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12481>       ADD HYD                1.0 02: 980-out      330.38     7.836 No_date   29:23     58.69  n/a      .000
12482>                          +    1.0 02: S-1-FO-DIR       5.11       .059 No_date   29:23     63.68  n/a      .000
12483>                          +    1.0 02: S-1-FODIovf        .00       .000 No_date    0:00       .00  n/a      .000
12484>                          SUM=  1.0 01: 520         335.49     7.895 No_date   29:23     58.77  n/a      .000
12485> RO050: C00175-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12486>       SAVE HYD               1.0 01: 520         335.49     7.895 No_date   29:23     58.77  n/a      .000
12487>          fname : 520. 0050
12488>          remark: Total Flows at Sation 520 on Foster Drain
12489> # Hydrograph from Node at Station 520 (Foster Drain) to Node at station 6016 (Jock River)
12490> # Channel X-Section obtained from RVCA Hydraulic Model - Station 520
12491> #
12492> RO050: C00176-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12493>       ROUTE CHANNEL  ->      1.0 02: 520         335.49     7.895 No_date   29:23     58.77  n/a      .000
12494>       [ RDT=  1.00]  out <-  1.0 01: 520-out     335.49     7.860 No_date   29:27     58.77  n/a      .000
12495>          [ L/ S/ n=  860. /  .587/ .035]
12496>          [ Vmax=  1. 531 Dmax=  .760]
12497> RO050: C00177-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12498>       CONTI NUOUS STANDHYD   1.0 01: S-1-FO-F-D     14.96      2.535 No_date   28:01     63.41  .778      .000
12499>          [ XI M=. 65: TI M=. 65]
12500>          [ LOSS= 2 : CN= 74.0]
12501>          [ Pervious      area: I Aper= 4. 67: SLPP=  .50: LGP=  40. : MNP=. 250: SCP=    .0]
12502>          [ Impervious    area: I Aimp= 1. 57: SLPI=  .50: LGI= 316. : MNI=. 013: SCI=    .0]
12503>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12504>          [ SMI N=  36. 67:  SMAX=244. 49:  SK=  .010]
12505> RO050: C00178-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12506>       COMPUTE DUALHYD        1.0 01: S-1-FO-F-D     14.96      2.535 No_date   28:01     63.41  n/a      .000
12507>          Major System    /   1.0 02: S-1-FO-F-DI        .00       .000 No_date    0:00       .00  n/a      .000
12508>          Minor System    \   1.0 03: S-1-FO-F-DN      14.96      1.615 No_date   27:53     63.62  n/a      .000
12509>          [ MJ SysSto=. 5006Et+03,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs]
12510> RO050: C00179-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12511>       ADD HYD                1.0 02: S-1-FO-F-DI        .00       .000 No_date    0:00       .00  n/a      .000
12512>                          +    1.0 02: S-1-FO-F-DN      14.96      1.615 No_date   27:53     63.62  n/a      .000
12513>                          SUM=  1.0 01: S-1-FO-F-DS      14.96      1.615 No_date   27:53     63.62  n/a      .000
12514> RO050: C00180-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12515>       ROUTE RESERVOIR -> 1.0 02: S-1-FO-F-DS      14.96      1.615 No_date   27:53     63.62  n/a      .000
12516>                          out <=  1.0 01: S-1-FO-F-DR      14.96       .171 No_date   29:28     63.62  n/a      .000
12517>                          overflow <=  1.0 03: S-1-FOFovf        .00       .000 No_date    0:00       .00  n/a      .000
12518>       {MaStoRed=. 5709Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12519> RO050: C00181-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12520>       CONTI NUOUS STANDHYD   1.0 01: S-1-D8         5.27      1.052 No_date   28:01     46.77  .574      .000
12521>          [ XI M=. 32: TI M=. 65]
12522>          [ Horton parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .000]
12523>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12524>          [ Impervious    area: I Aimp=  .79: SLPI=  .75: LGI= 187. : MNI=. 013: SCI=    .0]
12525>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12526> RO050: C00182-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12527>       COMPUTE DUALHYD        1.0 01: S-1-D8         5.27      1.052 No_date   28:01     46.77  n/a      .000
12528>          Major System    /   1.0 02: S-1-D8J          .00       .000 No_date    0:00       .00  n/a      .000
12529>          Minor System    \   1.0 03: S-1-D8N         5.27       .672 No_date   27:53     46.88  n/a      .000
12530>          [ MJ SysSto=. 2053Et+03,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12531> RO050: C00183-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12532>       ADD HYD                1.0 02: S-1-D8J          .00       .000 No_date    0:00       .00  n/a      .000
12533>                          +    1.0 02: S-1-D8N         5.27       .672 No_date   27:53     46.88  n/a      .000
12534>                          SUM=  1.0 01: S-1-D8S         5.27       .672 No_date   27:53     46.88  n/a      .000
12535> RO050: C00184-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12536>       ROUTE RESERVOIR -> 1.0 02: S-1-D8S         5.27       .672 No_date   27:53     46.88  n/a      .000
12537>                          out <=  1.0 01: S-1-D8R         5.27       .055 No_date   28:46     46.88  n/a      .000
12538>                          overflow <=  1.0 03: S-1-D8Rovf        .00       .000 No_date    0:00       .00  n/a      .000
12539>       {MaStoRed=. 1843Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12540> RO050: C00185-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12541>       CONTI NUOUS NASHYD     1.0 01: S-1-A          75.88      3.042 No_date   28:36     39.91  .490      .000
12542>          [ CN=  77. 0:  N=  3. 00:  Tp=  .62]
12543>          [ I aREC=  4. 00:  SM N=  31. 15:  SMAX=207. 66:  SK=  .010]
12544>          [ I nterEvent Time=  12. 00]
12545> RO050: C00186-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12546>       CONTI NUOUS NASHYD     1.0 01: W_CLAR_UND     35.65       .943 No_date   29:10     39.91  .490      .000
12547>          [ CN=  77. 0:  N=  3. 00:  Tp=  .78]
12548>          [ I aREC=  4. 00:  SM N=  31. 15:  SMAX=207. 66:  SK=  .010]
12549>          [ I nterEvent Time=  12. 00]
12550> RO050: C00187-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12551>       ADD HYD                1.0 02: N_FO          53577.82  128.055 No_date   33:44     33.65  n/a      .000
12552>                          +    1.0 02: 520-out       335.49     7.860 No_date   29:27     58.77  n/a      .000
12553>                          +    1.0 02: MS_P10         73.29     1.204 No_date   29:09     63.49  n/a      .000
12554>                          +    1.0 02: P10-OVF          .00       .000 No_date    0:00       .00  n/a      .000
12555>                          +    1.0 02: W_CLAR_UND     35.65       .943 No_date   29:10     39.91  n/a      .000
12556>                          +    1.0 02: S-1-FOSRovf      .00       .000 No_date    0:00       .00  n/a      .000
12557>                          +    1.0 02: S-1-FO-F-DR    14.96       .171 No_date   29:28     63.62  n/a      .000
12558>                          +    1.0 02: S-1-D8Rovf       .00       .000 No_date    0:00       .00  n/a      .000
12559>                          +    1.0 02: S-1-D8R         5.27       .055 No_date   28:46     46.88  n/a      .000
12560>                          +    1.0 02: S-1-A          75.88      3.042 No_date   28:36     39.91  n/a      .000
12561>                          SUM=  1.0 01: SN_FO       54118.36  133.255 No_date   33:20     33.87  n/a      .000
12562> RO050: C00188-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12563>       SAVE HYD               1.0 01: SN_FO       54118.36  133.255 No_date   33:20     33.87  n/a      .000
12564>          fname : SN_FO 0050
12565>          remark: Total Flows at Foster Drain
12566> # Hydrograph from Node Foster routed to Node at Cedarview Road
12567> # Channel X-Section obtained from RVCA Hydraulic Model - Station 6016
12568> #
12569> RO050: C00189-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12570>       ROUTE CHANNEL  ->      1.0 02: SN_FO       54118.36  133.255 No_date   33:20     33.87  n/a      .000
12571> *     [ RDT=  1.00]  out <-  1.0 01: N_CE        54118.36  133.007 No_date   33:45     33.87  n/a      .000
12572>          [ L/ S/ n=  159. /  .082/ .035]
12573>          [ Vmax=  1. 438 Dmax=  4. 182]
12574> #*************************************************************************
12575> #     Catchment S-1
12576> #   - To Jock River (north and south of Jock)
12577> #   - Primarily agricultural fields; portion of sand quarry
12578> #*************************************************************************
12579> RO050: C00190-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12580>       CONTI NUOUS NASHYD     1.0 01: S-1-B          55.36      2.770 No_date   28:23     39.91  .490      .000
12581>          [ CN=  77. 0:  N=  3. 00:  Tp=  .45]
12582>          [ I aREC=  4. 00:  SM N=  31. 15:  SMAX=207. 66:  SK=  .010]
12583>          [ I nterEvent Time=  12. 00]
12584> #   -  JFSA 2021-02-24 change the name from S-1-BCDC to S-1-A and S-1-B. Change their TP values based on the new areas
12585> #   -  JFSA 2021-02-24 "S-1-BCDC-1" and "S-1-BCDC-2" are not existing anymore. "S-1-BCDC-1" is part of "S-1-FO-D2" and
12586> #   -  JFSA 2021-01-19, after adding Greenbank pond, "S-1-BCDC-3" is not existing anymore
12587> RO050: C00191-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12588>       CONTI NUOUS STANDHYD   1.0 01: S-1-DI         21. 67     3. 809 No_date   28:01     63. 95  .785      .000
12589>          [ XI M=. 65: TI M=. 65]
12590>          [ LOSS= 2 : CN= 75.0]
12591>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12592>          [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 380. : MNI=. 013: SCI=    .0]
12593>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12594>          [ SMI N=  33. 81:  SMAX=225. 43:  SK=  .010]
12595> RO050: C00192-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12596>       COMPUTE DUALHYD        1.0 01: S-1-DI         21. 67     3. 809 No_date   28:01     63. 95  n/a      .000
12597>          Major System    /   1.0 02: S-1-DIJ          .00       .000 No_date    0:00       .00  n/a      .000
12598>          Minor System    \   1.0 03: S-1-DIN         21. 67     2. 409 No_date   27:53     64. 14  n/a      .000
12599>          [ MJ SysSto=. 7710Et+03,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs]
12600> RO050: C00193-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12601>       ADD HYD                1.0 02: S-1-DIJ          .00       .000 No_date    0:00       .00  n/a      .000
12602>                          +    1.0 02: S-1-DIN         21. 67     2. 409 No_date   27:53     64. 14  n/a      .000
12603>                          SUM=  1.0 01: S-1-DIS         21. 67     2. 409 No_date   27:53     64. 14  n/a      .000
12604> RO050: C00194-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12605>       ROUTE RESERVOIR -> 1.0 02: S-1-DIS         21. 67     2. 409 No_date   27:53     64. 14  n/a      .000
12606>                          out <=  1.0 01: S-1-DIR         21. 67      .250 No_date   29:21     64. 14  n/a      .000
12607>                          overflow <=  1.0 03: S-1-DIRovf        .00       .000 No_date    0:00       .00  n/a      .000
12608>       {MaStoRed=. 8355Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12609> RO050: C00195-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12610>       CONTI NUOUS STANDHYD   1.0 01: S-1-DA         3. 28      .652 No_date   28:00     63. 95  .785      .000
12611>          [ XI M=. 65: TI M=. 65]
12612>          [ LOSS= 2 : CN= 75.0]
12613>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12614>          [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 148. : MNI=. 013: SCI=    .0]
12615>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12616>          [ SMI N=  33. 81:  SMAX=225. 43:  SK=  .010]
12617> RO050: C00196-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12618>       COMPUTE DUALHYD        1.0 01: S-1-DA         3. 28      .652 No_date   28:00     63. 95  n/a      .000
12619>          Major System    /   1.0 02: S-1-DAJ          .00       .000 No_date    0:00       .00  n/a      .000
12620>          Minor System    \   1.0 03: S-1-DAN         3. 28      .421 No_date   27:52     63. 99  n/a      .000
12621>          [ MJ SysSto=. 1072Et+03,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs]
12622> RO050: C00197-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12623>       ADD HYD                1.0 02: S-1-DAJ          .00       .000 No_date    0:00       .00  n/a      .000
12624>                          +    1.0 02: S-1-DAN         3. 28      .421 No_date   27:52     63. 99  n/a      .000
12625>                          SUM=  1.0 01: S-1-DAS         3. 28      .421 No_date   27:52     63. 99  n/a      .000
12626> RO050: C00198-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12627>       ROUTE RESERVOIR -> 1.0 02: S-1-DAS         3. 28      .421 No_date   27:52     63. 99  n/a      .000
12628>                          out <=  1.0 01: S-1-DAR         3. 28      .038 No_date   29:14     63. 98  n/a      .000
12629>                          overflow <=  1.0 03: S-1-DARovf        .00       .000 No_date    0:00       .00  n/a      .000
12630>       {MaStoRed=. 1260Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12631> RO050: C00199-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12632>       CONTI NUOUS STANDHYD   1.0 01: S-1-DS         12. 84     2. 360 No_date   28:01     63. 95  .785      .000
12633>          [ XI M=. 65: TI M=. 65]
12634>          [ LOSS= 2 : CN= 75.0]
12635>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12636>          [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 293. : MNI=. 013: SCI=    .0]
12637>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12638>          [ SMI N=  33. 81:  SMAX=225. 43:  SK=  .010]
12639> RO050: C00200-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12640>       COMPUTE DUALHYD        1.0 01: S-1-DS         12. 84     2. 360 No_date   28:01     63. 95  n/a      .000
12641>          Major System    /   1.0 02: S-1-DSJ          .00       .000 No_date    0:00       .00  n/a      .000
12642>          Minor System    \   1.0 03: S-1-DSN         12. 84     1. 500 No_date   27:53     64. 12  n/a      .000
12643>          [ MJ SysSto=. 4409Et+03,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs]
12644> RO050: C00201-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12645>       ADD HYD                1.0 02: S-1-DSJ          .00       .000 No_date    0:00       .00  n/a      .000
12646>                          +    1.0 02: S-1-DSN         12. 84     1. 500 No_date   27:53     64. 12  n/a      .000
12647>                          SUM=  1.0 01: S-1-DSS         12. 84     1. 500 No_date   27:53     64. 12  n/a      .000
12648> RO050: C00202-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12649>       ROUTE RESERVOIR -> 1.0 02: S-1-DSS         12. 84     1. 500 No_date   27:53     64. 12  n/a      .000
12650>                          out <=  1.0 01: S-1-DSR         12. 84      .148 No_date   29:18     64. 12  n/a      .000
12651>                          overflow <=  1.0 03: S-1-DSRovf        .00       .000 No_date    0:00       .00  n/a      .000
12652>       {MaStoRed=. 4948Et+00  m3,  Tot Orf Vol =. 0000Et+00  m3,  N-Orf=      0,  Tot Dur Orf=      0. hrs}
12653> RO050: C00203-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12654>       CONTI NUOUS STANDHYD   1.0 01: S-1-D6         1. 75      .357 No_date   28:00     63. 95  .785      .000
12655>          [ XI M=. 65: TI M=. 65]
12656>          [ LOSS= 2 : CN= 75.0]
12657>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
12658>          [ Impervious    area: I Aimp= 1. 57: SLPI= . 75: LGI= 108. : MNI=. 013: SCI=    .0]
12659>          [ I aREC( mp=   4. 00: I aREC( per=   4. 00]
12660>          [ SMI N=  33. 81:  SMAX=225. 43:  SK=  .010]
12661> RO050: C00204-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12662>       COMPUTE DUALHYD        1.0 01: S-1-D6         1. 75      .357 No_date   28:00     63. 95  n/a      .000
12663>          Major System    /   1.0 02: S-1-D6J          .00       .000 No_date    0:00       .00  n/a      .000
12664>          Minor System    \   1.0 03: S-1-D6N         1. 75      .232 No_date   27:52     64. 46  n/a      .000
12665>          [ MJ SysSto=. 5657Et+02,  Tot Orf Vol =. 0000Et+00,  N-Orf=      0,  Tot Dur Orf=      0. hrs]
12666> RO050: C00205-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R. C.---DWFcms
12667>       ADD HYD                1.0 02: S-1-D6J          .00       .000 No_date    0:00       .00  n/a      .000
12
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12717> R0050: C00213-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12718>       CONTI NUOUS STANDHYD     1. 0 01: W_CLAR_ALL    119. 40     17. 358 No_date    28: 04    63. 49 . 779      . 000
12719>        [ XI MP= 60: TI MP= 65]
12720>        [ LOSS= 2 : CN= 77. 0]
12721>        [ Pervious      area: I Aper= 4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12722>        [ Impervious    area: I Aimp= 1. 57: SLPI =1. 00: LGI = 892. : MNI =. 013: SCI =    . 0]
12723>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12724>        [ SMI N= 31. 15:  SMX= 207. 66:  SK=  . 010]
12725> R0050: C00214-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12726>       ADD HYD                  1. 0 02: W_CLAR_ALL    119. 40     17. 358 No_date    28: 04    63. 49  n/ a      . 000
12727>                           +    1. 0 02: W_CLAR_MI J      . 08       . 102 No_date    28: 01    59. 44  n/ a      . 000
12728>                           SUM=  1. 0 01: W_CLAR          119. 47     17. 371 No_date    28: 04    63. 49  n/ a      . 000
12729> R0050: C00215-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12730>       SAVE HYD                 1. 0 01: W_CLAR        119. 47     17. 371 No_date    28: 04    63. 49  n/ a      . 000
12731>        fname: W_CLAR. 0050
12732>        remark: Total Flows to West Clarke
12733> #*************************************************************************
12734> #     West Clarke Pond 2
12735> #   - Rating curve obtained from Barrhaven South MSS modeling
12736> #   - Tributary Drainage Area to MSS Pond 2 = 241 ha
12737> #*************************************************************************
12738> R0050: C00216-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12739>       ROUTE RESERVOIR  ->      1. 0 02: W_CLAR        119. 47     17. 371 No_date    28: 04    63. 49  n/ a      . 000
12740>                           out <=    1. 0 01: MS_P2         119. 47     10. 246 No_date    28: 16    63. 49  n/ a      . 000
12741>                           overflow <=    1. 0 03: P2- OVF          0. 00      . 000 No_date    0: 00     0. 00  n/ a      . 000
12742>        [ MxSt oRed= . 3076E+01   m3,  Tot Or Vol =. 0000E+00   m3,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12743> #*************************************************************************
12744> R0050: C00217-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12745>       ADD HYD                  1. 0 02: N_CE          54118. 36   133. 007 No_date    33: 45    33. 87  n/ a      . 000
12746>                           +    1. 0 02: S- 1- DI R        3. 28       . 038 No_date    29: 14    63. 98  n/ a      . 000
12747>                           +    1. 0 02: S- 1- DSR        12. 84       . 148 No_date    29: 18    64. 12  n/ a      . 000
12748>                           +    1. 0 02: S- 1- DSRovf      . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12749>                           +    1. 0 02: S- 1- DSRovf      . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12750>                           +    1. 0 02: MS_P2         119. 47     10. 246 No_date    28: 16    63. 49  n/ a      . 000
12751>                           +    1. 0 02: P2- OVF           . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12752>                           SUM=  1. 0 01: SN_CE         54253. 95   134. 004 No_date    33: 44    33. 95  n/ a      . 000
12753> R0050: C00218-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12754>       SAVE HYD                 1. 0 01: SN_CE         54253. 95   134. 004 No_date    33: 44    33. 95  n/ a      . 000
12755>        fname: SN_CE. 0050
12756>        remark: Total Flows before Station 5737 on Jock River
12757> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5737
12758> # 2021- 02- 25 add new station 5002. Station 5737 was extracted from the HEC- RAS model T: \ PROJ\ 1474- 16\ Des
12759> # JFSA 2021- 03- 02  change the slope to 0. 0175% instead of 0. 02593 to stabilize the model
12760> R0050: C00219-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12761>       ROUTE CHANNEL    ->      1. 0 02: SN_CE         54253. 95   134. 004 No_date    33: 44    33. 95  n/ a      . 000
12762> *     [ RDT= 1. 00]  out <-     1. 0 01: 5737          54253. 95   125. 921 No_date    35: 58    33. 95  n/ a      . 000
12763>        [ L/ S/ n=   270. /  . 018/ . 035]
12764>        [ Vmax=   8. 827: Dmax=  5. 276]
12765> R0050: C00220-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12766>       ADD HYD                  1. 0 02: 5737          54253. 95   125. 921 No_date    35: 58    33. 95  n/ a      . 000
12767>                           +    1. 0 02: S- 1- DI R        21. 67       . 250 No_date    29: 21    64. 14  n/ a      . 000
12768>                           +    1. 0 02: S- 1- D6R         1. 75       . 020 No_date    29: 11    64. 45  n/ a      . 000
12769>                           +    1. 0 02: S- 1- D7R         2. 03       . 024 No_date    29: 12    64. 19  n/ a      . 000
12770>                           +    1. 0 02: S- 1- D8Rovf      . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12771>                           +    1. 0 02: S- 1- D6Rovf      . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12772>                           +    1. 0 02: S- 1- D7Rovf      . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12773>                           SUM=  1. 0 01: 5002          54279. 41   126. 128 No_date    35: 58    33. 96  n/ a      . 000
12774> R0050: C00221-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12775>       SAVE HYD                 1. 0 01: 5002          54279. 41   126. 128 No_date    35: 58    33. 96  n/ a      . 000
12776>        fname: 5002. 0050
12777>        remark: Total Flows before Station 5002 on Jock River
12778> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
12779> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5002
12780> # JFSA 2021- 02- 19 Change the slope from 0. 01 % (as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
12781> # JFSA 2021- 02- 19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
12782> # JFSA 2021- 02- 26 change the length of 5002 route channel from 825 m to 736 m. That is because of adding station 5737 be
12783> R0050: C00222-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12784>       ROUTE CHANNEL    ->      1. 0 02: 5002          54279. 41   126. 128 No_date    35: 58    33. 96  n/ a      . 000
12785> *     [ RDT= 1. 00]  out <-     1. 0 01: N_WCa         54279. 41   126. 118 No_date    36: 03    33. 96  n/ a      . 000
12786>        [ L/ S/ n=   245. /  . 095/ . 035]
12787>        [ Vmax=   1. 266: Dmax=  2. 967]
12788> R0050: C00223-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12789>       ROUTE CHANNEL    ->      1. 0 02: N_WCa         54279. 41   126. 118 No_date    36: 03    33. 96  n/ a      . 000
12790> *     [ RDT= 1. 00]  out <-     1. 0 01: N_WCb         54279. 41   126. 102 No_date    36: 10    33. 96  n/ a      . 000
12791>        [ L/ S/ n=   245. /  . 095/ . 035]
12792>        [ Vmax=   1. 266: Dmax=  2. 967]
12793> R0050: C00224-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12794>       ROUTE CHANNEL    ->      1. 0 02: N_WCb         54279. 41   126. 102 No_date    36: 10    33. 96  n/ a      . 000
12795> *     [ RDT= 1. 00]  out <-     1. 0 01: N_WC          54279. 41   125. 986 No_date    36: 27    33. 96  n/ a      . 000
12796>        [ L/ S/ n=   245. /  . 095/ . 035]
12797>        [ Vmax=   1. 266: Dmax=  2. 967]
12798> #*************************************************************************
12799> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
12800> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
12801> #
12802> R0050: C00225-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12803>       ROUTE CHANNEL    ->      1. 0 02: N_WC          54279. 41   125. 986 No_date    36: 27    33. 96  n/ a      . 000
12804> *     [ RDT= 1. 00]  out <-     1. 0 01: N_KB          54279. 41   125. 695 No_date    36: 19    33. 96  n/ a      . 000
12805>        [ L/ S/ n=  1020. /  . 050/ . 035]
12806>        [ Vmax=   1. 123: Dmax=  3. 747]
12807> #*************************************************************************
12808> #     Catchment KENI_BU
12809> #   - To Kennedy- Burnett SWM Facility
12810> #   - Outlets to Fraser- Clarke drain (north of the Jock)
12811> #   - Medium density residential subdivision
12812> #*************************************************************************
12813> #*************************************************************************
12814> #     Existing Kennedy- Burnett SWM Facility
12815> #   - Rating curve obtained from URTKBP
12816> #   - Tributary Drainage Area to Pond = 160 ha
12817> #*************************************************************************
12818> R0050: C00226-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12819>       CONTI NUOUS STANDHYD     1. 0 01: KB- 01A        40. 82      4. 812 No_date    28: 10    33. 07  . 406      . 000
12820>        [ XI MP= 30: TI MP= 40]
12821>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12822>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=   40. : MNP=. 250: SCP=    . 0]
12823>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 50: LGI =  522. : MNI =. 013: SCI =    . 0]
12824>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12825> R0050: C00227-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12826>       COMPUTE DUALHYD          1. 0 01: KB- 01A        40. 82      4. 812 No_date    28: 10    33. 07  n/ a      . 000
12827>        Major System    /       1. 0 02: KB- 01A- MI       . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12828>        Minor System    \       1. 0 03: KB- 01A- MN       40. 82      3. 600 No_date    28: 00    33. 14  n/ a      . 000
12829>        [ MjSysSt o= . 1021E+04,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12830> R0050: C00228-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12831>       ADD HYD                  1. 0 02: KB- 01A- MI       . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12832>                           +    1. 0 02: KB- 01A- MN       40. 82      3. 600 No_date    28: 00    33. 14  n/ a      . 000
12833>                           SUM=  1. 0 01: KB- 01A- S        40. 82      3. 600 No_date    28: 00    33. 14  n/ a      . 000
12834> R0050: C00229-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12835>       CONTI NUOUS STANDHYD     1. 0 01: KB- 01B        31. 10      3. 541 No_date    28: 07    36. 47  . 447      . 000
12836>        [ XI MP= . 19: TI MP= . 38]
12837>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12838>        [ Pervious      area: I Aper= 4. 67: SLPP=  . 42: LGP=   40. : MNP=. 250: SCP=    . 0]
12839>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 42: LGI =  455. : MNI =. 013: SCI =    . 0]
12840>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12841> R0050: C00230-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12842>       COMPUTE DUALHYD          1. 0 01: KB- 01B        31. 10      3. 541 No_date    28: 07    36. 47  n/ a      . 000
12843>        Major System    /       1. 0 02: KB- 01B- MI       . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12844>        Minor System    \       1. 0 03: KB- 01B- MN       31. 10      1. 585 No_date    27: 53    36. 51  n/ a      . 000
12845>        [ MjSysSt o= . 2627E+04,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12846> R0050: C00231-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12847>       ADD HYD                  1. 0 02: KB- 01B- MI       . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12848>                           +    1. 0 02: KB- 01B- MN       31. 10      1. 585 No_date    27: 53    36. 51  n/ a      . 000
12849>                           SUM=  1. 0 01: KB- 01B- S        31. 10      1. 585 No_date    27: 53    36. 51  n/ a      . 000
12850> R0050: C00232-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12851>       CONTI NUOUS STANDHYD     1. 0 01: KB- 01C        13. 78      2. 163 No_date    28: 04    37. 72  . 463      . 000
12852>        [ XI MP= . 20: TI MP= . 41]
12853>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12854>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12855>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 50: LGI =  303. : MNI =. 013: SCI =    . 0]
12856>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12857> R0050: C00233-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12858>       COMPUTE DUALHYD          1. 0 01: KB- 01C        13. 78      2. 163 No_date    28: 04    37. 72  n/ a      . 000
12859>        Major System    /       1. 0 02: KB- 01C- MI       . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12860>        Minor System    \       1. 0 03: KB- 01C- MN       13. 78      1. 350 No_date    27: 55    37. 86  n/ a      . 000
12861>        [ MjSysSt o= . 5764E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12862> R0050: C00234-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12863>       ADD HYD                  1. 0 02: KB- 01C- MI       . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12864>                           +    1. 0 02: KB- 01C- MN       13. 78      1. 350 No_date    27: 55    37. 86  n/ a      . 000
12865>                           SUM=  1. 0 01: KB- 01C- S        13. 78      1. 350 No_date    27: 55    37. 86  n/ a      . 000
12866> R0050: C00235-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12867>       CONTI NUOUS STANDHYD     1. 0 01: KB- 03         84. 78     11. 183 No_date    28: 07    37. 17  . 456      . 000
12868>        [ XI MP= . 20: TI MP= . 39]
12869>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12870>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12871>        [ Impervious    area: I Aimp=  . 79: SLPI =  . 63: LGI =  752. : MNI =. 013: SCI =    . 0]
12872>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12873> R0050: C00236-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12874>       COMPUTE DUALHYD          1. 0 01: KB- 03         84. 78     11. 183 No_date    28: 07    37. 17  n/ a      . 000
12875>        Major System    /       1. 0 02: KB- 03- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12876>        Minor System    \       1. 0 03: KB- 03- MN        84. 78      5. 270 No_date    27: 54    37. 24  n/ a      . 000
12877>        [ MjSysSt o= . 6453E+04,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12878> R0050: C00237-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12879>       ADD HYD                  1. 0 02: KB- 03- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12880>                           +    1. 0 02: KB- 03- MN        84. 78      5. 270 No_date    27: 54    37. 24  n/ a      . 000
12881>                           SUM=  1. 0 01: KB- 03- S         84. 78      5. 270 No_date    27: 54    37. 24  n/ a      . 000
12882> R0050: C00238-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12883>       CONTI NUOUS STANDHYD     1. 0 01: KB- 04         6. 95      1. 592 No_date    28: 00    71. 86  . 882      . 000
12884>        [ XI MP= . 85: TI MP= . 85]
12885>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12886>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12887>        [ Impervious    area: I Aimp=  . 94: SLPI =  . 50: LGI =  215. : MNI =. 013: SCI =    . 0]
12888>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12889> R0050: C00239-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12890>       COMPUTE DUALHYD          1. 0 01: KB- 04         6. 95      1. 592 No_date    28: 00    71. 86  n/ a      . 000
12891>        Major System    /       1. 0 02: KB- 04- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12892>        Minor System    \       1. 0 03: KB- 04- MN        6. 95       . 503 No_date    27: 44    72. 11  n/ a      . 000
12893>        [ MjSysSt o= . 9423E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12894> R0050: C00240-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12895>       ADD HYD                  1. 0 02: KB- 04- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12896>                           +    1. 0 02: KB- 04- MN        6. 95       . 503 No_date    27: 44    72. 11  n/ a      . 000
12897>                           SUM=  1. 0 01: KB- 04- S         6. 95       . 503 No_date    27: 44    72. 11  n/ a      . 000
12898> R0050: C00241-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12899>       CONTI NUOUS STANDHYD     1. 0 01: KB- 05         5. 19      1. 270 No_date    28: 00    75. 92  . 931      . 000
12900>        [ XI MP= . 93: TI MP= . 93]
12901>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12902>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12903>        [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  186. : MNI =. 013: SCI =    . 0]
12904>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12905> R0050: C00242-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12906>       CONTI NUOUS STANDHYD     1. 0 01: KB- 06         12. 93      3. 268 No_date    28: 00    73. 20  . 898      . 000
12907>        [ XI MP= . 87: TI MP= . 87]
12908>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12909>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12910>        [ Impervious    area: I Aimp=  . 94: SLPI =4. 75: LGI =  294. : MNI =. 013: SCI =    . 0]
12911>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12912> R0050: C00243-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12913>       COMPUTE DUALHYD          1. 0 01: KB- 06         12. 93      3. 268 No_date    28: 00    73. 20  n/ a      . 000
12914>        Major System    /       1. 0 02: KB- 06- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12915>        Minor System    \       1. 0 03: KB- 06- MN        12. 93      2. 262 No_date    27: 52    73. 67  n/ a      . 000
12916>        [ MjSysSt o= . 4323E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12917> R0050: C00244-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12918>       ADD HYD                  1. 0 02: KB- 06- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12919>                           +    1. 0 02: KB- 06- MN        12. 93      2. 262 No_date    27: 52    73. 67  n/ a      . 000
12920>                           SUM=  1. 0 01: KB- 06- S         12. 93      2. 262 No_date    27: 52    73. 67  n/ a      . 000
12921> R0050: C00245-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12922>       CONTI NUOUS STANDHYD     1. 0 01: KB- 11         4. 03       . 921 No_date    28: 00    61. 82  . 758      . 000
12923>        [ XI MP= . 68: TI MP= . 68]
12924>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12925>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12926>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI =  164. : MNI =. 013: SCI =    . 0]
12927>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12928> R0050: C00246-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12929>       COMPUTE DUALHYD          1. 0 01: KB- 11         4. 03       . 921 No_date    28: 00    61. 82  n/ a      . 000
12930>        Major System    /       1. 0 02: KB- 11- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12931>        Minor System    \       1. 0 03: KB- 11- MN        4. 03       . 577 No_date    27: 52    62. 10  n/ a      . 000
12932>        [ MjSysSt o= . 1581E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12933> R0050: C00247-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12934>       ADD HYD                  1. 0 02: KB- 11- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12935>                           +    1. 0 02: KB- 11- MN        4. 03       . 577 No_date    27: 52    62. 10  n/ a      . 000
12936>                           SUM=  1. 0 01: KB- 11- S         4. 03       . 577 No_date    27: 52    62. 10  n/ a      . 000
12937> R0050: C00248-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12938>       CONTI NUOUS STANDHYD     1. 0 01: S1             4. 99      1. 304 No_date    28: 00    75. 92  . 931      . 000
12939>        [ XI MP= . 93: TI MP= . 93]
12940>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12941>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12942>        [ Impervious    area: I Aimp= 1. 57: SLPI =2. 00: LGI =  182. : MNI =. 013: SCI =    . 0]
12943>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12944> R0050: C00249-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12945>       CONTI NUOUS STANDHYD     1. 0 01: KB- 15         2. 15       . 497 No_date    28: 00    69. 00  . 847      . 000
12946>        [ XI MP= . 79: TI MP= . 79]
12947>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12948>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12949>        [ Impervious    area: I Aimp=  . 16: SLPI =  . 30: LGI =  120. : MNI =. 013: SCI =    . 0]
12950>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12951> R0050: C00250-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12952>       ADD HYD                  1. 0 02: KB- 01A- S        40. 82      3. 600 No_date    28: 00    33. 14  n/ a      . 000
12953>                           +    1. 0 02: KB- 01B- S        31. 10      1. 585 No_date    27: 53    36. 51  n/ a      . 000
12954>                           +    1. 0 02: KB- 01C- S        13. 78      1. 350 No_date    27: 55    37. 86  n/ a      . 000
12955>                           +    1. 0 02: KB- 03- S         84. 78      5. 270 No_date    27: 54    37. 24  n/ a      . 000
12956>                           +    1. 0 02: KB- 04- S         6. 95       . 503 No_date    27: 44    72. 11  n/ a      . 000
12957>                           +    1. 0 02: KB- 05- S         5. 19      1. 270 No_date    28: 00    75. 92  n/ a      . 000
12958>                           +    1. 0 02: KB- 06- S         12. 93      2. 262 No_date    27: 52    73. 67  n/ a      . 000
12959>                           +    1. 0 02: KB- 11- S         4. 03       . 577 No_date    27: 52    62. 10  n/ a      . 000
12960>                           +    1. 0 02: KB- 15- S         2. 15       . 497 No_date    28: 00    69. 00  n/ a      . 000
12961>                           +    1. 0 02: S1             4. 99      1. 304 No_date    28: 00    75. 92  n/ a      . 000
12962>                           SUM=  1. 0 01: KB- PI         206. 72     18. 218 No_date    28: 00    42. 53  n/ a      . 000
12963> R0050: C00251-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12964>       ROUTE RESERVOIR  ->      1. 0 02: KB- PI         206. 72     18. 218 No_date    28: 00    42. 53  n/ a      . 000
12965>                           out <=    1. 0 01: KB- PI R       198. 38     12. 438 No_date    28: 02    42. 53  n/ a      . 000
12966>                           overflow <=    1. 0 03: KB- Pl ovf       8. 34      5. 573 No_date    28: 02    42. 53  n/ a      . 000
12967>        [ MxSt oRed= . 7313E+00   m3,  Tot Or f Vol =. 3545E+00   m3,  N- Or f=     2,  Tot Dur Or f=    1. hrs]
12968> R0050: C00252-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12969>       ADD HYD                  1. 0 02: KB- PI         198. 38     12. 438 No_date    28: 02    42. 53  n/ a      . 000
12970>                           +    1. 0 02: KB- Pl ovf        8. 34      5. 573 No_date    28: 02    42. 53  n/ a      . 000
12971>                           SUM=  1. 0 01: KB- Pond1      206. 72     18. 011 No_date    28: 02    42. 53  n/ a      . 000
12972> R0050: C00253-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12973>       SAVE HYD                 1. 0 01: KB- Pond1      206. 72     18. 011 No_date    28: 02    42. 53  n/ a      . 000
12974>        fname: KB- Pond1. 0050
12975>        remark: Total Flows at KB first pond
12976> R0050: C00254-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12977>       CONTI NUOUS STANDHYD     1. 0 01: KB- 07         10. 86      2. 656 No_date    28: 00    72. 58  . 890      . 000
12978>        [ XI MP= . 86: TI MP= . 86]
12979>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12980>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12981>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI =  269. : MNI =. 013: SCI =    . 0]
12982>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12983> R0050: C00255-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12984>       COMPUTE DUALHYD          1. 0 01: KB- 07         10. 86      2. 656 No_date    28: 00    72. 58  n/ a      . 000
12985>        Major System    /       1. 0 02: KB- 07- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12986>        Minor System    \       1. 0 03: KB- 07- MN        10. 86      2. 094 No_date    28: 08    72. 95  n/ a      . 000
12987>        [ MjSysSt o= . 1950E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
12988> R0050: C00256-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12989>       ADD HYD                  1. 0 02: KB- 07- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
12990>                           +    1. 0 02: KB- 07- MN        10. 86      2. 094 No_date    28: 08    72. 95  n/ a      . 000
12991>                           SUM=  1. 0 01: KB- 07- S         10. 86      2. 094 No_date    28: 08    72. 95  n/ a      . 000
12992> R0050: C00257-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
12993>       CONTI NUOUS STANDHYD     1. 0 01: KB- 08         6. 61      1. 444 No_date    28: 00    59. 78  . 733      . 000
12994>        [ XI MP= . 64: TI MP= . 64]
12995>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
12996>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
12997>        [ Impervious    area: I Aimp=  . 79: SLPI =2. 00: LGI =  210. : MNI =. 013: SCI =    . 0]
12998>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
12999> R0050: C00258-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
13000>       COMPUTE DUALHYD          1. 0 01: KB- 08         6. 61      1. 444 No_date    28: 00    59. 78  n/ a      . 000
13001>        Major System    /       1. 0 02: KB- 08- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
13002>        Minor System    \       1. 0 03: KB- 08- MN        6. 61      1. 058 No_date    27: 53    60. 05  n/ a      . 000
13003>        [ MjSysSt o= . 1439E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=    0. hrs]
13004> R0050: C00259-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
13005>       ADD HYD                  1. 0 02: KB- 08- MI        . 00       . 000 No_date    0: 00     0. 00  n/ a      . 000
13006>                           +    1. 0 02: KB- 08- MN        6. 61      1. 058 No_date    27: 53    60. 05  n/ a      . 000
13007>                           SUM=  1. 0 01: KB- 08- S         6. 61      1. 058 No_date    27: 53    60. 05  n/ a      . 000
13008> R0050: C00260-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
13009>       CONTI NUOUS STANDHYD     1. 0 01: KB- 09         2. 60       . 665 No_date    28: 00    71. 90  . 882      . 000
13010>        [ XI MP= . 86: TI MP= . 86]
13011>        [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY=4. 14:    F=  . 00]
13012>        [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
13013>        [ Impervious    area: I Aimp= 1. 57: SLPI =2. 00: LGI =  132. : MNI =. 013: SCI =    . 0]
13014>        [ I aREC( mp=   4. 00: I aREC per=    4. 00]
13015> R0050: C00261-------------DTmi n-I D: NHYD---------AREAha- QPEAK cms- TpeakDat e_hh: mm----RVmm R. C.----DWFcms
13016>       CONTI NUOUS STANDHYD     1. 0 01: KB- 10_1       2. 37       . 607 No_date    28: 00    71
```

```
13091>                    +      1.0 02: KB-12- S          4.86        .867 No_date   28: 09   68. 93   n/a      .000
13092>                    +      1.0 02: KB-13- S         10. 19      1. 722 No_date   27: 55   60. 01   n/a      .000
13093>                    +      1.0 02: KB-14- S          5. 47        .873 No_date   27: 53   60. 02   n/a      .000
13094>                    +      1.0 02: KB-16_2           3. 42       .724 No_date   28: 01   64. 30   n/a      .000
13095>                   SUM=    1.0 01: KB-P2           254. 24     26. 339 No_date   28: 02   46. 87   n/a      .000
13096> R0050: C00274- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13097>      ROUTE RESERVOIR - >       1. 0 02: KB-P2           254. 24     26. 339 No_date   28: 02   46. 87   n/a      .000
13098>                    out <=     1. 0 01: KB-P2R          253. 10     17. 634 No_date   28: 09   46. 87   n/a      .000
13099>                  overflow <=  1. 0 03: KB-P2ovf          1. 14       5. 257 No_date   28: 09   46. 87   n/a      .000
13100>    [MvSt oRked=. 1109E+01  m3,  Tot Ovf Vol =. 5351E- 01  m3,  N- Ov f =      1,  Tot Dur Ovf =      0. hr s]
13101> R0050: C00275- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13102>      ADD HYD                1. 0 02: KB-P2R          253. 10     17. 634 No_date   28: 09   46. 87   n/a      .000
13103>                    +      1. 0 02: KB-P2ovf          1. 14       5. 257 No_date   28: 09   46. 87   n/a      .000
13104>                   SUM=    1. 0 01: KB-Pond2        254. 24     22. 891 No_date   28: 09   46. 87   n/a      .000
13105> R0050: C00276- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13106>      SAVE HYD               1. 0 01: KB-Pond2        254. 24     22. 891 No_date   28: 09   46. 87   n/a      .000
13107>        f name : KB- Pond2. 0050
13108>        remark: Total Flows at KB second pond
13109> R0050: C00277- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13110>      CONTI NUOUS STANDHYD       1. 0 01: KB-16_1          2. 80        .624 No_date   28: 00   66. 65   .818     .000
13111>        [ XI MP=. 75: TI MP=. 75]
13112>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
13113>        [ P ervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13114>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  137. : MNI =. 013: SCI =    .0]
13115>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13116> R0050: C00278- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13117>      ADD HYD                1. 0 02: KB-Pond2        254. 24     22. 891 No_date   28: 09   46. 87   n/a      .000
13118>                    +      1. 0 02: KB-16_1           2. 80        .624 No_date   28: 00   66. 65   n/a      .000
13119>                   SUM=    1. 0 01: KB-P3           257. 04     23. 147 No_date   28: 09   47. 08   n/a      .000
13120> R0050: C00279- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13121>      ROUTE RESERVOIR - >       1. 0 02: KB-P3           257. 04     23. 147 No_date   28: 09   47. 08   n/a      .000
13122>                    out <=     1. 0 01: KB-P3R            9. 40        .051 No_date   17: 13   47. 07   n/a      .000
13123>                  overf l ow <=  1. 0 03: KB-P3ovf        247. 64     22. 286 No_date   28: 10   47. 08   n/a      .000
13124>    [MvSt oRked=. 1988E- 02  m3,  Tot Ovf Vol =. 1166E+02  m3,  N- Ov f =      1,  Tot Dur Ovf =     23. hr s]
13125> R0050: C00280- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13126>      ADD HYD                1. 0 02: KB-P3R            9. 40        .051 No_date   17: 13   47. 07   n/a      .000
13127>                    +      1. 0 02: KB-P3ovf        247. 64     22. 286 No_date   28: 10   47. 08   n/a      .000
13128>                   SUM=    1. 0 01: KB-Pond3        257. 04     22. 337 No_date   28: 10   47. 08   n/a      .000
13129> R0050: C00281- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13130>      SAVE HYD               1. 0 01: KB-Pond3        257. 04     22. 337 No_date   28: 10   47. 08   n/a      .000
13131>        f name : KB- Pond3. 0050
13132>        remark: Total Flows at KB third pond
13133> #*******************************************************************************
13134> #     EXI STI NG / PROPOSED Subcatchments ( Kennedy- Burnett SWM Facility ( 118080) , SWM Modeling Approach, NOVATECH Report Ju
13135> #     - TO FRASER- CLARKE DRAI N
13136> #*******************************************************************************
13137> R0050: C00282- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13138>      CONTI NUOUS STANDHYD       1. 0 01: FC- 01           8. 03       1. 483 No_date   28: 01   49. 52   .608     .000
13139>        [ XI MP=. 47: TI MP=. 47]
13140>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
13141>        [ P ervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13142>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  231. : MNI =. 013: SCI =    .0]
13143>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13144> R0050: C00283- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13145>      COMPUTE DUALHYD            1. 0 01: FC- 01           8. 03       1. 483 No_date   28: 01   49. 52   n/a      .000
13146>        Major Syst em    /      1. 0 02: FC- 01- MI        .00        .000 No_date   0: 00    .00   n/a      .000
13147>        Mi nor Syst em   \      1. 0 03: FC- 01- MN        8. 03       .756 No_date   28: 32   49. 91   n/a      .000
13148>        [ MvSys Sto=. 4662E+03,  Tot Ovf Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ovf =      0. hr s]
13149> R0050: C00284- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13150>      ADD HYD                1. 0 01: FC- 01            .00        .000 No_date   0: 00    .00   n/a      .000
13151>                    +      1. 0 02: FC- 01- MN        8. 03       .756 No_date   27: 51   49. 91   n/a      .000
13152>                   SUM=    1. 0 01: FC- 01- S         8. 03       .756 No_date   27: 51   49. 91   n/a      .000
13153> R0050: C00285- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13154>      CONTI NUOUS STANDHYD       1. 0 01: FC- 02          16. 05       3. 831 No_date   28: 00   75. 92   .931     .000
13155>        [ XI MP=. 93: TI MP=. 93]
13156>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
13157>        [ P ervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13158>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  327. : MNI =. 013: SCI =    .0]
13159>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13160> R0050: C00286- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13161>      COMPUTE DUALHYD           1. 0 01: FC- 02          16. 05       3. 831 No_date   28: 00   75. 92   n/a      .000
13162>        Major Syst em    /      1. 0 02: FC- 02- MI        .00        .000 No_date   0: 00    .00   n/a      .000
13163>        Mi nor Syst em   \      1. 0 03: FC- 02- MN       16. 05      1. 159 No_date   27: 43   75. 94   n/a      .000
13164>        [ MvSys Sto=. 2348E+04,  Tot Ovf Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ovf =      0. hr s]
13165> R0050: C00287- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13166>      ADD HYD                1. 0 02: FC- 02- MI        .00        .000 No_date   0: 00    .00   n/a      .000
13167>                    +      1. 0 02: FC- 02- MN       16. 05      1. 159 No_date   27: 43   75. 94   n/a      .000
13168>                   SUM=    1. 0 01: FC- 02- S        16. 05      1. 159 No_date   27: 43   75. 94   n/a      .000
13169> R0050: C00288- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13170>      CONTI NUOUS STANDHYD       1. 0 01: FC- 03           7. 37       1. 540 No_date   28: 00   59. 28   .727     .000
13171>        [ XI MP=. 64: TI MP=. 64]
13172>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
13173>        [ P ervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13174>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  222. : MNI =. 013: SCI =    .0]
13175>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13176> R0050: C00289- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13177>      COMPUTE DUALHYD           1. 0 01: FC- 03           7. 37       1. 540 No_date   28: 00   59. 28   n/a      .000
13178>        Major Syst em    /      1. 0 02: FC- 03- MI        .02        .092 No_date   28: 14   59. 28   n/a      .000
13179>        Mi nor Syst em   \      1. 0 03: FC- 03- MN        7. 35       .358 No_date   27: 42   59. 51   n/a      .000
13180>        [ MvSys Sto=. 1131E+04,  Tot Ovf Vol =. 1375E+02,  N- Ov f =      1,  Tot Dur Ovf =      0. hr s]
13181> R0050: C00290- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13182>      ADD HYD                1. 0 02: FC- 03- MI          .02        .092 No_date   28: 14   59. 28   n/a      .000
13183>                    +      1. 0 02: FC- 03- MN        7. 35       .358 No_date   27: 42   59. 51   n/a      .000
13184>                   SUM=    1. 0 01: FC- 03- S         7. 37       .450 No_date   28: 14   59. 51   n/a      .000
13185> R0050: C00291- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13186>      CONTI NUOUS STANDHYD       1. 0 01: FC- 04          12. 87       2. 587 No_date   28: 01   59. 28   .727     .000
13187>        [ XI MP=. 64: TI MP=. 64]
13188>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
13189>        [ P ervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13190>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  293. : MNI =. 013: SCI =    .0]
13191>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13192> R0050: C00292- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13193>      COMPUTE DUALHYD           1. 0 01: FC- 04          12. 87       2. 587 No_date   28: 01   59. 28   n/a      .000
13194>        Major Syst em    /      1. 0 02: FC- 04- MI        .00        .000 No_date   0: 00    .00   n/a      .000
13195>        Mi nor Syst em   \      1. 0 03: FC- 04- MN       12. 87       .741 No_date   27: 44   59. 54   n/a      .000
13196>        [ MvSys Sto=. 1729E+04,  Tot Ovf Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ovf =      0. hr s]
13197> R0050: C00293- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13198>      ADD HYD                1. 0 02: FC- 04- MI          .00        .000 No_date   0: 00    .00   n/a      .000
13199>                    +      1. 0 02: FC- 04- MN       12. 87       .741 No_date   27: 44   59. 54   n/a      .000
13200>                   SUM=    1. 0 01: FC- 04- S        12. 87       .741 No_date   27: 44   59. 54   n/a      .000
13201> #*******************************************************************************
13202> #     PROPOSED Subcatchments ( Kennedy- Burnett SWM Facility ( 118080) , SWM Modeling Approach, NOVATECH Report June, 2020)
13203> #     - TO JOCK RI VER
13204> #*******************************************************************************
13205> R0050: C00294- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13206>      CONTI NUOUS STANDHYD       1. 0 01: JR- 01           8. 24       1. 714 No_date   28: 00   59. 28   .727     .000
13207>        [ XI MP=. 64: TI MP=. 64]
13208>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
13209>        [ P ervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13210>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  234. : MNI =. 013: SCI =    .0]
13211>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13212> R0050: C00295- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13213>      COMPUTE DUALHYD           1. 0 01: JR- 01           8. 24       1. 714 No_date   28: 00   59. 28   n/a      .000
13214>        Major Syst em    /      1. 0 02: JR- 01- MI        .00        .000 No_date   0: 00    .00   n/a      .000
13215>        Mi nor Syst em   \      1. 0 03: JR- 01- MN        8. 24       .563 No_date   28: 59   59. 48   n/a      .000
13216>        [ MvSys Sto=. 9643E+03,  Tot Ovf Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ovf =      0. hr s]
13217> R0050: C00296- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13218>      ADD HYD                1. 0 02: JR- 01- MI          .00        .000 No_date   0: 00    .00   n/a      .000
13219>                    +      1. 0 02: JR- 01- MN        8. 24       .563 No_date   27: 44   59. 48   n/a      .000
13220>                   SUM=    1. 0 01: JR- 01- S         8. 24       .563 No_date   27: 44   59. 48   n/a      .000
13221> R0050: C00297- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13222>      CONTI NUOUS STANDHYD       1. 0 01: JR- 02           1. 59        .357 No_date   28: 00   59. 28   .727     .000
13223>        [ XI MP=. 64: TI MP=. 64]
13224>        [ Hort on parameters: Fo=  76. 20: Fc=  13. 20: DCAY=4. 14:    F=  .00]
13225>        [ P ervi ous      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13226>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  103. : MNI =. 013: SCI =    .0]
13227>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13228> R0050: C00298- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13229>      COMPUTE DUALHYD           1. 0 01: JR- 02           1. 59        .357 No_date   28: 00   59. 28   n/a      .000
13230>        Major Syst em    /      1. 0 02: JR- 02- MI          .00        .000 No_date   0: 00    .00   n/a      .000
13231>        Mi nor Syst em   \      1. 0 03: JR- 02- MN        1. 59        .153 No_date   27: 45   59. 66   n/a      .000
13232>        [ MvSys Sto=. 1319E+03,  Tot Ovf Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ovf =      0. hr s]
13233> R0050: C00299- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13234>      ADD HYD                1. 0 02: JR- 02- MI          .00        .000 No_date   0: 00    .00   n/a      .000
13235>                    +      1. 0 02: JR- 02- MN        1. 59        .153 No_date   27: 45   59. 66   n/a      .000
13236>                   SUM=    1. 0 01: JR- 02- S         1. 59        .153 No_date   27: 45   59. 66   n/a      .000
13237> #*******************************************************************************
13238> #     Catchment FRASER
13239> #     - To Fraser- Clarke drain (north of the Jock)
13240> #     - Developed land with assumed 43% imp.
13241> #     - 2020-12-17 Change Fraser area to be 35. l as measured from QGIS
13242> #     - 2020-12-17 All Fraser is undeveloped (Nashyd)
13243> #*******************************************************************************
13244> R0050: C00300- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13245>      CONTI NUOUS NASHYD         1. 0 01: FRASER- DRN      13. 65        .711 No_date   28: 22   39. 91   .490     .000
13246>        [ CN=  77. 0:  N=  3. 00:  Tp=    .43]
13247>        [ I aREC= 4. 00: SMI N=. 31: 15:  SMAX=207. 66:  SK=  .010]
13248>        [ I nterEvent Ti me=   12. 00]
13249> R0050: C00301- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13250>      CONTI NUOUS STANDHYD       1. 0 01: FRASER- D        21. 61       3. 688 No_date   28: 01   62. 97   .773     .000
13251>        [ XI MP=. 58: TI MP=. 58]
13252>        [ LOSS= 2 : CN= 80. 0]
13253>        [ P ervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13254>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  380. : MNI =. 013: SCI =    .0]
13255>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13256>        [ SMI N=. 26. 32:  SMAX=175. 50:  SK=  .010]
13257> R0050: C00302- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13258>      COMPUTE DUALHYD           1. 0 01: FRASER- D        21. 61       3. 688 No_date   28: 01   62. 97   n/a      .000
13259>        Major Syst em    /      1. 0 02: FRASER- J          .00        .000 No_date   0: 00    .00   n/a      .000
13260>        Mi nor Syst em   \      1. 0 03: FRASER- N        21. 61       2. 281 No_date   27: 53   63. 21   n/a      .000
13261>        [ MvSys Sto=. 7987E+03,  Tot Ovf Vol =. 0000E+00,  N- Ov f =      0,  Tot Dur Ovf =      0. hr s]
13262> R0050: C00303- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13263>      ADD HYD                1. 0 02: FRASER- J          .00        .000 No_date   0: 00    .00   n/a      .000
13264>                    +      1. 0 02: FRASER- N        21. 61       2. 281 No_date   27: 53   63. 21   n/a      .000
13265>                   SUM=    1. 0 01: FRASER- S        21. 61       2. 281 No_date   27: 53   63. 21   n/a      .000
13266> R0050: C00304- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13267>      ADD HYD                1. 0 02: KB- Pond3       257. 04     22. 337 No_date   28: 10   47. 08   n/a      .000
13268>                    +      1. 0 02: S- 1- B          55. 36       2. 770 No_date   28: 23   39. 91   n/a      .000
13269>                    +      1. 0 02: FRASER- DRN      13. 65        .711 No_date   28: 22   39. 91   n/a      .000
13270>                    +      1. 0 02: FRASER- S        21. 61       2. 281 No_date   27: 53   63. 21   n/a      .000
13271>                    +      1. 0 02: N_KB          54279. 41  125. 695 No_date   36: 19   33. 96   n/a      .000
13272>                    +      1. 0 02: FC- 01- S         8. 03        .756 No_date   27: 51   49. 91   n/a      .000
13273>                    +      1. 0 02: FC- 02- S        16. 05      1. 159 No_date   27: 43   75. 94   n/a      .000
13274>                    +      1. 0 02: FC- 03- S         7. 37        .450 No_date   28: 14   59. 51   n/a      .000
13275>                   SUM=    1. 0 01: 4241          54658. 52   126. 368 No_date   36: 19   34. 06   n/a      .000
13276> R0050: C00305- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13277>      SAVE HYD               1. 0 01: 4241          54658. 52   126. 368 No_date   36: 19   34. 06   n/a      .000
13278>        f name : 4241. 0050
13279>        remark: Total Flows at Ken- Burnett Outlet
13280> # Hydrograph from Node Ken- Burnett to station 3633
13281> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4241
13282> #
13283> R0050: C00306- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13284>      ROUTE CHANNEL      - >     1. 0 02: 4241          54658. 52   126. 368 No_date   36: 19   34. 06   n/a      .000
13285> *    [ RDT=  1. 00]  out <-     1. 0 01: 4241- out     54658. 52   127. 099 No_date   36: 18   34. 06   n/a      .000
13286>        [ LJ S/ n=   294. / . 109/ . 035]
13287>        [ Vmax=  1. 330: Dmax=  2. 427]
13288> R0050: C00307- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13289>      ADD HYD                1. 0 03: 4241- out     54658. 52   127. 099 No_date   36: 18   34. 06   n/a      .000
13290>                    +      1. 0 02: FC- 04- S        12. 87        .741 No_date   27: 44   59. 54   n/a      .000
13291>                    +      1. 0 02: JR- 01- S         8. 24        .563 No_date   27: 44   59. 48   n/a      .000
13292>                    +      1. 0 02: JR- 02- S         1. 59        .153 No_date   27: 45   59. 66   n/a      .000
13293>                   SUM=    1. 0 01: SN_KB         54681. 21   127. 139 No_date   36: 18   34. 07   n/a      .000
13294> R0050: C00308- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13295>      SAVE HYD               1. 0 01: SN_KB         54681. 21   127. 139 No_date   36: 18   34. 07   n/a      .000
13296>        f name : SN_KB. 0050
13297>        remark: Total Flows before Station 3633
13298> # Hydrograph from Station 3633 to Node Todd
13299> # Channel X- Section obtained from RVCA Hydraulic Model - Station 3633
13300> # JFSA 2021- 02- 26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
13301> #
13302> R0050: C00309- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13303>      ROUTE CHANNEL      - >     1. 0 02: SN_KB         54681. 21   127. 139 No_date   36: 18   34. 07   n/a      .000
13304> *    [ RDT=  1. 00]  out <-     1. 0 01: N_TO          54681. 21   126. 373 No_date   36: 19   34. 07   n/a      .000
13305>        [ LJ S/ n=   608. / . 247/ . 035]
13306>        [ Vmax=  1. 812: Dmax=  1. 825]
13307> #*******************************************************************************
13308> #     Catchment Greenbank
13309> #     - To Greenbank Drain (south of the Jock)
13310> #     - JFSA 2021- 01- 18 add Greenbank pond as per JFSA, P598( 06)- 15, June 2016
13311> #     - JFSA 2021- 01- 19 update area from 37. 479 ha to 36. 6 ha based on GIS measurements
13312> #*******************************************************************************
13313> R0050: C00310- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13314>      CONTI NUOUS STANDHYD       1. 0 01: Greenbank        36. 60       6. 286 No_date   28: 02   65. 04   .798     .000
13315>        [ XI MP=. 64: TI MP=. 68]
13316>        [ LOSS= 2 : CN= 77. 0]
13317>        [ P ervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13318>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  494. : MNI =. 013: SCI =    .0]
13319>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13320>        [ SMI N=. 31. 15:  SMAX=207. 66:  SK=  .010]
13321> R0050: C00311- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13322>      ROUTE RESERVOIR - >       1. 0 02: Greenbank        36. 60       6. 286 No_date   28: 02   65. 04   n/a      .000
13323>                    out <=     1. 0 01: GreenB_MN        36. 60       4. 176 No_date   28: 09   65. 04   n/a      .000
13324>                  overf l ow <=  1. 0 03: GreenB_MI          .00        .000 No_date   0: 00    .00   n/a      .000
13325>    [MvSt oRked=. 9063E+00  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ov f =      0,  Tot Dur Ovf =      0. hr s]
13326> R0050: C00312- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13327>      ADD HYD                1. 0 02: N_TO          54681. 21   126. 373 No_date   36: 19   34. 07   n/a      .000
13328>                    +      1. 0 02: GreenB_MI          .00        .000 No_date   0: 00    .00   n/a      .000
13329>                    +      1. 0 02: GreenB_MN        36. 60       4. 176 No_date   28: 09   65. 04   n/a      .000
13330>                   SUM=    1. 0 01: GreenB        54717. 81   126. 537 No_date   36: 19   34. 09   n/a      .000
13331> R0050: C00313- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13332>      SAVE HYD               1. 0 01: GreenB        54717. 81   126. 537 No_date   36: 19   34. 09   n/a      .000
13333>        f name : GreenB. 0050
13334>        remark: Total Flows at Greenbank Drain
13335> #*******************************************************************************
13336> #     Catchment TODD
13337> #     - To Todd Drain (south of the Jock)
13338> #     - Subdivision with 43% imp. as per Barrhaven South MSS
13339> #     - 2020- 11- 30 increase imp. based on P598( 04)- 11
13340> #     - 2020- 11- 30 update TODD Tributary Drainage Area to  = 146. 015 ha based on P598( 04)- 11
13341> #     - 2020- 11- 30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
13342> #*******************************************************************************
13343> #     - JFSA 2021- 01- 19 add "TODD_MNI" as part of Clarke( "W_CLAR_MI") and remove it from Todd
13344> R0050: C00314- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13345>      CONTI NUOUS STANDHYD       1. 0 01: TODD_MN2          2. 10        .384 No_date   28: 00   60. 14   .738     .000
13346>        [ XI MP=. 53: TI MP=. 57]
13347>        [ LOSS= 2 : CN= 77. 0]
13348>        [ P ervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13349>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  118. : MNI =. 013: SCI =    .0]
13350>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13351>        [ SMI N=. 31. 15:  SMAX=207. 66:  SK=  .010]
13352> R0050: C00315- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13353>      CONTI NUOUS STANDHYD       1. 0 01: TODD_MN3          .12        .022 No_date   28: 00   60. 13   .738     .000
13354>        [ XI MP=. 53: TI MP=. 57]
13355>        [ LOSS= 2 : CN= 77. 0]
13356>        [ P ervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13357>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  28. : MNI =. 013: SCI =    .0]
13358>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13359>        [ SMI N=. 31. 15:  SMAX=207. 66:  SK=  .010]
13360> R0050: C00316- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13361>      CONTI NUOUS STANDHYD       1. 0 01: TODD_MI          30. 23       4. 894 No_date   28: 02   61. 85   .759     .000
13362>        [ XI MP=. 52: TI MP=. 64]
13363>        [ LOSS= 2 : CN= 77. 0]
13364>        [ P ervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13365>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  449. : MNI =. 013: SCI =    .0]
13366>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13367>        [ SMI N=. 31. 15:  SMAX=207. 66:  SK=  .010]
13368> R0050: C00317- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13369>      CONTI NUOUS STANDHYD       1. 0 01: TODD_ALL         112. 91      15. 270 No_date   28: 04   59. 95   .735     .000
13370>        [ XI MP=. 52: TI MP=. 57]
13371>        [ LOSS= 2 : CN= 77. 0]
13372>        [ P ervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13373>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  868. : MNI =. 013: SCI =    .0]
13374>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13375>        [ SMI N=. 31. 15:  SMAX=207. 66:  SK=  .010]
13376> R0050: C00318- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13377>      CONTI NUOUS STANDHYD       1. 0 01: TODD_P            3. 06        .600 No_date   28: 00   63. 61   .780     .000
13378>        [ XI MP=. 63: TI MP=. 63]
13379>        [ LOSS= 2 : CN= 77. 0]
13380>        [ P ervi ous      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    .0]
13381>        [ I mpervi ous    area: I Aim=  1. 57: SLPI =1. 00: LGI =  143. : MNI =. 013: SCI =    .0]
13382>        [ I aREC i mp=   4. 00: I aREC per=    4. 00]
13383>        [ SMI N=. 31. 15:  SMAX=207. 66:  SK=  .010]
13384> # 5- Year + 12% Capture
13385> R0050: C00319- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13386>      ROUTE RESERVOIR - >       1. 0 02: TODD_MI          30. 23       4. 894 No_date   28: 02   61. 85   n/a      .000
13387>                    out <=     1. 0 01: TODD_MIn         28. 89       3. 314 No_date   27: 54   61. 87   n/a      .000
13388>                  overf l ow <=  1. 0 03: TODD_MIj          1. 34       1. 567 No_date   28: 02   61. 85   n/a      .000
13389>    [MvSt oRked=. 1169E- 02  m3,  Tot Ovf Vol =. 8285E- 01  m3,  N- Ov f =      1,  Tot Dur Ovf =      0. hr s]
13390> # 5- Year + 12% Capture
13391> R0050: C00320- ---------- DTmi n-I D: NHYD- --------- AREA ha- QPEAK cms- Tpeak Dat e_hh: mm- ---- RVmm R. C. - - - DWF cms
13392>      ROUTE RESERVOIR - >       1. 0 02: TODD_MN2          2. 10        .384 No_date   28: 00   60. 14   n/a      .000
13393>                    out <=     1. 0 01: TODD_MNn          2. 02        .268 No_date   27: 53   60. 14   n/a      .000
13394>                  overf l ow <=  1. 0 03: TODD_MNj           .08        .111 No_date   28: 00   60. 14   n/a      .000
13395>    [MvSt oRked=. 1643E- 03  m3,  Tot Ovf Vol =. 4631E- 02  m3,  N- Ov f =      1,  Tot Dur Ovf =      0. hr s]
13396> R0
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13465> #*************************************************************************
13466> R0050: C00331-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13467>       CONTI NUOUS STANDHYD      1. 0 01: corr1          15. 87      2. 851 No_date   28: 01    63. 61  n/ a      . 000
13468>        [ XI M=. 63: TI M=. 63]
13469>        [ LOSS= 2 : CN= 77. 0]
13470>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13471>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 325. : MNI =. 013: SCI =    . 0]
13472>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13473>        [ SM N= 31. 15:  SMX=207. 66:  SK=  . 010]
13474> R0050: C00332-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13475>       COMPUTE DUALHYD           1. 0 01: corr1          15. 87      2. 851 No_date   28: 01    63. 61  n/ a      . 000
13476>        Maj or Syst em    /      1. 0 02: corr1- MI      . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13477>        Mi nor Syst em    \      1. 0 03: corr1- MN      15. 87      1. 818 No_date   28: 19    63. 67  n/ a      . 000
13478>        [ MJ Sys St o=. 5297E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13479> R0050: C00333-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13480>       CONTI NUOUS NASHYD        1. 0 01: corr2          12. 47       . 330 No_date   29: 10    39. 91  . 490     . 000
13481>        [ CN=  77. 0:  N=  3. 00:  Tp=  1. 10]
13482>        [ I aREC i mp=   4. 00:  SM N=  31. 15:  SMX=207. 66:  SK=  . 010]
13483>        [ I nt er Event Ti me=   12. 00]
13484> R0050: C00334-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13485>       CONTI NUOUS STANDHYD      1. 0 01: Al - Corri g    15. 75      2. 330 No_date   28: 01    55. 89  . 686     . 000
13486>        [ XI M=. 42: TI M=. 52]
13487>        [ LOSS= 2 : CN= 75. 0]
13488>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13489>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 324. : MNI =. 013: SCI =    . 0]
13490>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13491>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13492> R0050: C00335-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13493>       COMPUTE DUALHYD           1. 0 01: Al - Corri g    15. 75      2. 330 No_date   28: 01    55. 89  n/ a      . 000
13494>        Maj or Syst em    /      1. 0 02: Al - MI        . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13495>        Mi nor Syst em    \      1. 0 03: Al - MN        15. 75      1. 818 No_date   27: 56    56. 07  n/ a      . 000
13496>        [ MJ Sys St o=. 1953E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13497> R0050: C00336-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13498>       CONTI NUOUS NASHYD        1. 0 01: BI             2. 77       . 119 No_date   28: 09    24. 96  . 306     . 000
13499>        [ CN=  56. 0:  N=  3. 00:  Tp=  . 23]
13500>        [ I aREC i mp=   4. 00:  SM N=  79. 69:  SMX=531. 24:  SK=  . 010]
13501>        [ I nt er Event Ti me=   12. 00]
13502> R0050: C00337-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13503>       CONTI NUOUS STANDHYD      1. 0 01: Ad             1. 27       . 239 No_date   28: 00    63. 95  . 785     . 000
13504>        [ XI M=. 65: TI M=. 65]
13505>        [ LOSS= 2 : CN= 75. 0]
13506>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13507>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 253. : MNI =. 013: SCI =    . 0]
13508>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13509>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13510> R0050: C00338-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13511>       COMPUTE DUALHYD           1. 0 01: Ad             1. 27       . 239 No_date   28: 00    63. 95  n/ a      . 000
13512>        Maj or Syst em    /      1. 0 02: Ad - MI        . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13513>        Mi nor Syst em    \      1. 0 03: Ad - MN        1. 27       . 239 No_date   28: 00    63. 95  n/ a      . 000
13514>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13515> R0050: C00339-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13516>       ADD HYD                   1. 0 02: Al - MI        . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13517>                            +    1. 0 02: Al - MN        15. 75      1. 818 No_date   27: 56    56. 07  n/ a      . 000
13518>                            +    1. 0 02: corr1- MI      . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13519>                            +    1. 0 02: corr1- MN      15. 87      1. 818 No_date   28: 19    63. 67  n/ a      . 000
13520>                            +    1. 0 02: corr2          12. 47       . 330 No_date   29: 10    39. 91  n/ a      . 000
13521>                            +    1. 0 02: BI             2. 77       . 119 No_date   28: 09    24. 96  n/ a      . 000
13522>                            +    1. 0 02: Ad - MN        1. 27       . 239 No_date   28: 00    63. 95  n/ a      . 000
13523>                       SUM=      1. 0 01: MI I 01        48. 13      4. 028 No_date   28: 02    52. 81  n/ a      . 000
13524> R0050: C00340-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13525>       SAVE HYD                  1. 0 01: MI I 01        48. 13      4. 028 No_date   28: 02    52. 81  n/ a      . 000
13526>        fname : MHI 01. 0050
13527>        remar k: Tot al Fl ows at  MHI 01
13528> R0050: C00341-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13529>       ROUTE PI PE               ->     1. 0 02: MHI 01         48. 13      4. 028 No_date   28: 02    52. 81  n/ a      . 000
13530> *     [ RDT= 1. 00]  out <-           1. 0 01: 101- 102       48. 13      4. 005 No_date   28: 03    52. 81  n/ a      . 000
13531>        [ L/ S/ n=  368. /  . 540/ . 013]
13532>        [ Vmx=  3. 143: Dmx=  1. 119]
13533>        [ Di n=  1. 05: Used=  1. 36]
13534> R0050: C00342-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13535>       ADD HYD                   1. 0 02: A2- MI         24. 86      1. 818 No_date   28: 39    56. 08  n/ a      . 000
13536>                            +    1. 0 02: 101- 102       48. 13      4. 005 No_date   28: 03    52. 81  n/ a      . 000
13537>                       SUM=      1. 0 01: MI I 02        72. 99      5. 823 No_date   28: 03    53. 92  n/ a      . 000
13538> R0050: C00343-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13539>       SAVE HYD                  1. 0 01: MI I 02        72. 99      5. 823 No_date   28: 03    53. 92  n/ a      . 000
13540>        fname : MHI 02. 0050
13541>        remar k: Tot al Fl ows at  MHI 02
13542> R0050: C00344-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13543>       CONTI NUOUS STANDHYD      1. 0 01: A5             1. 60       . 312 No_date   28: 01    66. 69  . 818     . 000
13544>        [ XI M=. 71: TI M=. 71]
13545>        [ LOSS= 2 : CN= 75. 0]
13546>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13547>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 300. : MNI =. 013: SCI =    . 0]
13548>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13549>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13550> R0050: C00345-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13551>       ADD HYD                   1. 0 02: A4- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13552>                            +    1. 0 02: A5             1. 60       . 312 No_date   28: 01    66. 69  n/ a      . 000
13553>                       SUM=      1. 0 01: A5T            1. 60       . 312 No_date   28: 01    66. 69  n/ a      . 000
13554> R0050: C00346-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13555>       COMPUTE DUALHYD           1. 0 01: A5T            1. 60       . 312 No_date   28: 01    66. 69  n/ a      . 000
13556>        Maj or Syst em    /      1. 0 02: A5- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13557>        Mi nor Syst em    \      1. 0 03: A5- MN         1. 60       . 312 No_date   28: 01    66. 69  n/ a      . 000
13558>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13559> R0050: C00347-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13560>       ROUTE PI PE               ->     1. 0 02: MHI 02         72. 99      5. 823 No_date   28: 03    53. 92  n/ a      . 000
13561> *     [ RDT= 1. 00]  out <-           1. 0 01: 102- 103       72. 99      5. 773 No_date   28: 14    53. 92  n/ a      . 000
13562>        [ L/ S/ n=  504. /  . 280/ . 013]
13563>        [ Vmx=  2. 694: Dmx=  1. 453]
13564>        [ Di n=  1. 50: Used=  1. 77]
13565> R0050: C00348-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13566>       ADD HYD                   1. 0 02: 102- 103       72. 99      5. 773 No_date   28: 14    53. 92  n/ a      . 000
13567>                            +    1. 0 02: A3- MN         1. 60       . 312 No_date   28: 01    66. 69  n/ a      . 000
13568>                       SUM=      1. 0 01: MI I 03        74. 59      5. 961 No_date   28: 03    54. 19  n/ a      . 000
13569> R0050: C00349-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13570>       SAVE HYD                  1. 0 01: MI I 03        74. 59      5. 961 No_date   28: 03    54. 19  n/ a      . 000
13571>        fname : MHI 03. 0050
13572>        remar k: Tot al Fl ows at  MHI 03
13573> R0050: C00350-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13574>       ROUTE PI PE               ->     1. 0 02: MHI 03         74. 59      5. 961 No_date   28: 03    54. 19  n/ a      . 000
13575>        [ RDT= 1. 00]  out <-           1. 0 01: 103- 104       74. 59      5. 915 No_date   28: 07    54. 19  n/ a      . 000
13576>        [ L/ S/ n=  438. /  . 460/ . 013]
13577>        [ Vmx=  3. 295: Dmx=  1. 301]
13578>        [ Di n=  1. 65: Used=  1. 65]
13579> R0050: C00351-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13580>       CONTI NUOUS STANDHYD      1. 0 01: A6             1. 56       . 306 No_date   28: 00    66. 69  . 818     . 000
13581>        [ XI M=. 71: TI M=. 71]
13582>        [ LOSS= 2 : CN= 75. 0]
13583>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13584>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 280. : MNI =. 013: SCI =    . 0]
13585>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13586>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13587> R0050: C00352-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13588>       ADD HYD                   1. 0 02: A5- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13589>                            +    1. 0 02: A6             1. 56       . 306 No_date   28: 00    66. 69  n/ a      . 000
13590>                       SUM=      1. 0 01: A6T            1. 56       . 306 No_date   28: 00    66. 69  n/ a      . 000
13591> R0050: C00353-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13592>       COMPUTE DUALHYD           1. 0 01: A6T            1. 56       . 306 No_date   28: 00    66. 69  n/ a      . 000
13593>        Maj or Syst em    /      1. 0 02: A6- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13594>        Mi nor Syst em    \      1. 0 03: A6- MN         1. 56       . 306 No_date   28: 00    66. 69  n/ a      . 000
13595>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13596> R0050: C00354-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13597>       ADD HYD                   1. 0 02: A6- MN         1. 56       . 306 No_date   28: 00    66. 69  n/ a      . 000
13598>                            +    1. 0 02: 103- 104       74. 59      5. 915 No_date   28: 07    54. 19  n/ a      . 000
13599>                            +    1. 0 02: TODD_Mi n      28. 89      3. 314 No_date   27: 54    61. 87  n/ a      . 000
13600>                       SUM=      1. 0 01: MI I 04        105. 04     9. 444 No_date   28: 04    56. 49  n/ a      . 000
13601> R0050: C00355-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13602>       SAVE HYD                  1. 0 01: MI I 04        105. 04     9. 444 No_date   28: 04    56. 49  n/ a      . 000
13603>        fname : MHI 04. 0050
13604>        remar k: Tot al Fl ows at  MHI 04
13605> R0050: C00356-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13606>       CONTI NUOUS STANDHYD      1. 0 01: B2             12. 31      1. 758 No_date   28: 02    56. 26  . 690     . 000
13607>        [ XI M=. 41: TI M=. 54]
13608>        [ LOSS= 2 : CN= 75. 0]
13609>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13610>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 417. : MNI =. 013: SCI =    . 0]
13611>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13612>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13613> R0050: C00357-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13614>       COMPUTE DUALHYD           1. 0 01: B2             12. 31      1. 758 No_date   28: 02    56. 26  n/ a      . 000
13615>        Maj or Syst em    /      1. 0 02: B2- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13616>        Mi nor Syst em    \      1. 0 03: B2- MN         12. 31      1. 029 No_date   27: 53    56. 54  n/ a      . 000
13617>        [ MJ Sys St o=. 4799E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13618> R0050: C00358-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13619>       ROUTE PI PE               ->     1. 0 02: B2- MN         12. 31      1. 029 No_date   27: 53    56. 54  n/ a      . 000
13620> *     [ RDT= 1. 00]  out <-           1. 0 01: 315- 333       12. 31      1. 029 No_date   28: 33    56. 54  n/ a      . 000
13621>        [ L/ S/ n=  254. /  . 100/ . 013]
13622>        [ Vmx=  1. 220: Dmx=  . 838]
13623>        [ Di n=  1. 20: Used=  1. 20]
13624> R0050: C00359-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13625>       CONTI NUOUS STANDHYD      1. 0 01: B3             5. 59       . 825 No_date   28: 01    56. 26  . 690     . 000
13626>        [ XI M=. 41: TI M=. 54]
13627>        [ LOSS= 2 : CN= 75. 0]
13628>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13629>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 345. : MNI =. 013: SCI =    . 0]
13630>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13631>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13632> R0050: C00360-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13633>       COMPUTE DUALHYD           1. 0 01: B3             5. 59       . 825 No_date   28: 01    56. 26  n/ a      . 000
13634>        Maj or Syst em    /      1. 0 02: B3- MI         . 02       . 083 No_date   28: 09    56. 26  n/ a      . 000
13635>        Mi nor Syst em    \      1. 0 03: B3- MN         5. 57       . 459 No_date   27: 52    56. 28  n/ a      . 000
13636>        [ MJ Sys St o=. 2270E+03,  Tot Or f Vol =. 1279E+02,  N- Or f =    1,  Tot Dur Or f =    0. hr s]
13637> R0050: C00361-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13638>       ADD HYD                   1. 0 02: B3- MN         5. 57       . 459 No_date   27: 52    56. 28  n/ a      . 000
13639>                            +    1. 0 02: 315- 333       12. 31      1. 029 No_date   28: 33    56. 54  n/ a      . 000
13640>                       SUM=      1. 0 01: MI I 33        17. 88      1. 488 No_date   28: 32    56. 46  n/ a      . 000
13641> R0050: C00362-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13642>       SAVE HYD                  1. 0 01: MI I 33        17. 88      1. 488 No_date   28: 32    56. 46  n/ a      . 000
13643>        fname : MHI 33. 0050
13644>        remar k: Tot al Fl ows at  MHI 33
13645> R0050: C00363-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13646>       ROUTE PI PE               ->     1. 0 02: MI I 33        17. 88      1. 488 No_date   28: 32    56. 46  n/ a      . 000
13647> *     [ RDT= 1. 00]  out <-           1. 0 01: 333- 335       17. 88      1. 479 No_date   28: 19    56. 46  n/ a      . 000
13648>        [ L/ S/ n=  251. /  . 100/ . 013]
13649>        [ Vmx=  1. 302: Dmx=  1. 057]
13650>        [ Di n=  1. 20: Used=  1. 29]
13651> R0050: C00364-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13652>       ROUTE PI PE               ->     1. 0 02: 333- 335       17. 88      1. 479 No_date   28: 19    56. 46  n/ a      . 000
13653> *     [ RDT= 1. 00]  out <-           1. 0 01: 335- 338       17. 88      1. 478 No_date   28: 16    56. 46  n/ a      . 000
13654>        [ L/ S/ n=  185. /  . 100/ . 013]
13655>        [ Vmx=  1. 300: Dmx=  1. 054]
13656>        [ Di n=  1. 20: Used=  1. 28]
13657> R0050: C00365-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13658>       ROUTE PI PE               ->     1. 0 02: 335- 338       17. 88      1. 478 No_date   28: 16    56. 46  n/ a      . 000
13659>        [ RDT= 1. 00]  out <-           1. 0 01: 338- 340       17. 88      1. 454 No_date   28: 18    56. 46  n/ a      . 000
13660>        [ L/ S/ n=  233. /  . 100/ . 013]
13661>        [ Vmx=  1. 330: Dmx=  . 979]
13662>        [ Di n=  1. 35: Used=  1. 35]
13663> R0050: C00366-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13664>       CONTI NUOUS STANDHYD      1. 0 01: B4             7. 60      1. 094 No_date   28: 02    56. 26  . 690     . 000
13665>        [ XI M=. 41: TI M=. 54]
13666>        [ LOSS= 2 : CN= 75. 0]
13667>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13668>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 388. : MNI =. 013: SCI =    . 0]
13669>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13670>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13671> R0050: C00367-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13672>       COMPUTE DUALHYD           1. 0 01: B4             7. 60      1. 094 No_date   28: 02    56. 26  n/ a      . 000
13673>        Maj or Syst em    /      1. 0 02: B4- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13674>        Mi nor Syst em    \      1. 0 03: B4- MN         7. 60       . 655 No_date   27: 53    56. 27  n/ a      . 000
13675>        [ MJ Sys St o=. 2780E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13676> R0050: C00368-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13677>       ADD HYD                   1. 0 02: 338- 340       17. 88      1. 454 No_date   28: 18    56. 46  n/ a      . 000
13678>                            +    1. 0 02: B4- MN         7. 60       . 655 No_date   27: 53    56. 27  n/ a      . 000
13679>                       SUM=      1. 0 01: MI 340         25. 48      2. 109 No_date   28: 18    56. 41  n/ a      . 000
13680> R0050: C00369-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13681>       SAVE HYD                  1. 0 01: MI 340         25. 48      2. 109 No_date   28: 18    56. 41  n/ a      . 000
13682>        fname : MHI 40. 0050
13683>        remar k: Tot al Fl ows at  MHI 40
13684> R0050: C00370-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13685>       ROUTE PI PE               ->     1. 0 02: MI 340         25. 48      2. 109 No_date   28: 18    56. 41  n/ a      . 000
13686>        [ RDT= 1. 00]  out <-           1. 0 01: 340- 104       25. 48      2. 090 No_date   28: 18    56. 41  n/ a      . 000
13687>        [ L/ S/ n=  240. /  . 150/ . 013]
13688>        [ Vmx=  1. 723: Dmx=  . 918]
13689>        [ Di n=  1. 65: Used=  1. 65]
13690> R0050: C00371-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13691>       ADD HYD                   1. 0 02: 340- 104       25. 48      2. 090 No_date   28: 18    56. 41  n/ a      . 000
13692>                            +    1. 0 02: MI 104         105. 04     9. 444 No_date   28: 04    56. 49  n/ a      . 000
13693>                       SUM=      1. 0 01: MI 104T        130. 52     11. 391 No_date   28: 07    56. 48  n/ a      . 000
13694> R0050: C00372-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13695>       ROUTE PI PE               ->     1. 0 02: MI 104T        130. 52     11. 391 No_date   28: 07    56. 48  n/ a      . 000
13696> *     [ RDT= 1. 00]  out <-           1. 0 01: 104- 105       130. 52     11. 118 No_date   28: 10    56. 48  n/ a      . 000
13697>        [ L/ S/ n=  380. /  . 100/ . 013]
13698>        [ Vmx=  2. 107: Dmx=  2. 003]
13699>        [ HGTH=  2. 36: WIDTH=  2. 70]
13700> R0050: C00373-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13701>       CONTI NUOUS STANDHYD      1. 0 01: B5             2. 20       . 390 No_date   28: 00    60. 29  . 740     . 000
13702>        [ XI M=. 57: TI M=. 57]
13703>        [ LOSS= 2 : CN= 75. 0]
13704>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13705>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 187. : MNI =. 013: SCI =    . 0]
13706>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13707>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13708> R0050: C00374-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13709>       COMPUTE DUALHYD           1. 0 01: B5             2. 20       . 390 No_date   28: 00    60. 29  n/ a      . 000
13710>        Maj or Syst em    /      1. 0 02: B5- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13711>        Mi nor Syst em    \      1. 0 03: B5- MN         2. 20       . 260 No_date   27: 53    60. 60  n/ a      . 000
13712>        [ MJ Sys St o=. 5913E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13713> R0050: C00375-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13714>       CONTI NUOUS STANDHYD      1. 0 01: A8             . 96       . 198 No_date   28: 00    66. 69  . 818     . 000
13715>        [ XI M=. 71: TI M=. 71]
13716>        [ LOSS= 2 : CN= 75. 0]
13717>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13718>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 186. : MNI =. 013: SCI =    . 0]
13719>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13720>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13721> R0050: C00376-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13722>       ADD HYD                   1. 0 02: A6- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13723>                            +    1. 0 02: A8             . 96       . 198 No_date   28: 00    66. 69  n/ a      . 000
13724>                       SUM=      1. 0 01: A8T            . 96       . 198 No_date   28: 00    66. 69  n/ a      . 000
13725> R0050: C00377-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13726>       COMPUTE DUALHYD           1. 0 01: A8T            . 96       . 198 No_date   28: 00    66. 69  n/ a      . 000
13727>        Maj or Syst em    /      1. 0 02: A8- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13728>        Mi nor Syst em    \      1. 0 03: A8- MN         . 96       . 198 No_date   28: 00    66. 69  n/ a      . 000
13729>        [ MJ Sys St o=. 0000E+00,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13730> R0050: C00378-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13731>       ADD HYD                   1. 0 02: 104- 105       130. 52     11. 118 No_date   28: 10    56. 48  n/ a      . 000
13732>                            +    1. 0 02: B5- MN         2. 20       . 260 No_date   27: 53    60. 60  n/ a      . 000
13733>                            +    1. 0 02: A8- MN         . 96       . 198 No_date   28: 00    66. 69  n/ a      . 000
13734>                            +    1. 0 02: TODD_MNj       . 00       . 006 No_date   28: 00    60. 13  n/ a      . 000
13735>                       SUM=      1. 0 01: MI I 05        133. 68     11. 441 No_date   28: 10    56. 62  n/ a      . 000
13736> R0050: C00379-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13737>       SAVE HYD                  1. 0 01: MI I 05        133. 68     11. 441 No_date   28: 10    56. 62  n/ a      . 000
13738>        fname : MHI 05. 0050
13739>        remar k: Tot al Fl ows at  MHI 05
13740> R0050: C00380-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13741> *     DI VERT HYD               ->     1. 0 01: A8- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13742>                         diverted <=    1. 0 02: A8- MI - JR    . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13743>                         diverted <=    1. 0 03: A8- MI - B6    . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13744> R0050: C00381-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13745>       DI VERT HYD               ->     1. 0 01: MI 105         133. 68     11. 441 No_date   28: 10    56. 62  n/ a      . 000
13746>                         diverted <=    1. 0 02: MI 105- JR     35. 42      8. 432 No_date   28: 10    56. 62  n/ a      . 000
13747>                         diverted <=    1. 0 03: MI 105- B6     98. 26      3. 009 No_date   28: 10    56. 62  n/ a      . 000
13748> R0050: C00382-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13749>       CONTI NUOUS STANDHYD      1. 0 01: B7             7. 19      1. 124 No_date   28: 01    56. 26  . 690     . 000
13750>        [ XI M=. 41: TI M=. 54]
13751>        [ LOSS= 2 : CN= 75. 0]
13752>        [ Per vious      area: I Aper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
13753>        [ I mper vious   area: I Aimp= 1. 57: SLPI =1. 00: LGI = 211. : MNI =. 013: SCI =    . 0]
13754>        [ I aREC i mp=   4. 00: I aREC per =   4. 00]
13755>        [ SM N= 33. 81:  SMX=225. 43:  SK=  . 010]
13756> R0050: C00383-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13757>       ADD HYD                   1. 0 02: B4- MI         . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13758>                            +    1. 0 02: B7             7. 19      1. 124 No_date   28: 01    56. 26  n/ a      . 000
13759>                       SUM=      1. 0 01: B7- B4MI       7. 19      1. 124 No_date   28: 01    56. 26  n/ a      . 000
13760> R0050: C00384-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13761>       COMPUTE DUALHYD           1. 0 01: B7- B4MI       7. 19      1. 124 No_date   28: 01    56. 26  n/ a      . 000
13762>        Maj or Syst em    /      1. 0 02: B7R- MI        . 00       . 000 No_date   0: 00      . 00  n/ a      . 000
13763>        Mi nor Syst em    \      1. 0 03: B7R- MN        7. 19       . 629 No_date   27: 51    56. 37  n/ a      . 000
13764>        [ MJ Sys St o=. 2885E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =    0,  Tot Dur Or f =    0. hr s]
13765> R0050: C00385-------------DTmi n- I D: NHYD---------AREAha- QPEAKcms- TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
13766>       ROUTE PI PE               ->     1. 0 02: B7R- MN        7. 19       . 629 No_date   27: 51    56. 37  n/ a      . 000
13767> *     [ RDT= 1. 00]  out <-           1. 0 01: 360- 106A      7. 19       . 629 No_date   28: 28    56. 37  n/ a      . 000
13768>        [ L/ S/ n=  167. /  . 100/ . 013]
13769>        [ Vmx=  1. 089: Dmx=  . 665]
13770>        [ Di n=  1. 05: Used=  1. 05]
13771> R0050: C00386-------------DTmi n- I D: NHYD---------AREAha- QPE
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13839>          [SMI=  33. 81:  SMX=225. 43:  SK=  .010]
13840> R0050: C00397-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13841>       COMPUTE DUALHYD       1. 0 01: A9              2. 44          .481 No_date    28: 00    66. 69   n/a      .000
13842>         Major System   /                1. 0 02: A9- M          .00          .000 No_date    28: 00     .00   n/a      .000
13843>         Minor System   \                1. 0 03: A9- MN         2. 44          .481 No_date    28: 00    66. 69   n/a      .000
13844> R0050: C00398-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13845>       ADD HYD                 +      1. 0 02: 106A- 106      109. 50        3. 702 No_date    27: 59    56. 59   n/a      .000
13846>                               +      1. 0 02: A9- MN         2. 44          .481 No_date    28: 00    66. 69   n/a      .000
13847>                               SUM=   1. 0 01: MI106         111. 94        4. 177 No_date    28: 00    56. 81   n/a      .000
13848> R0050: C00399-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13849>       SAVE HYD                       1. 0 01: MI106          111. 94        4. 177 No_date    28: 00    56. 81   n/a      .000
13850>          fname : MI106. 0050
13851>          remark: Total Flows at  MI106
13852> R0050: C00400-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13853>       ROUTE PIPE              ->     1. 0 02: MI106          111. 94        4. 177 No_date    28: 00    56. 81   n/a      .000
13854> *     [RDT=  1. 00] out <-           1. 0 01: 106- 107       111. 94        4. 129 No_date    28: 00    56. 81   n/a      .000
13855>          [L/ S/ n=  123. /  . 100/ . 013]
13856>          [Vmax=  1. 685: Dmax=  1. 556]
13857>          [Dn=  1. 80: Dused=  1. 90]
13858> R0050: C00401-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13859>       CONTI NUOUS STANDHYD    1. 0 01: AI0             4. 14          .602 No_date    28: 01    53. 20   .653     .000
13860>          [ XI M=  35: TI MP=  . 47]
13861>          [ LOSS=  2 : CN=  75. 0]
13862>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
13863>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
13864>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
13865>          [SMI =  33. 81:  SMX=225. 43:  SK=  .010]
13866> R0050: C00402-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13867>       COMPUTE DUALHYD         1. 0 01: AI0             4. 14          .602 No_date    28: 01    53. 20   n/a      .000
13868>         Major System   /                1. 0 02: AI0- MI        .00          .000 No_date    28: 01     .00   n/a      .000
13869>         Minor System   \                1. 0 03: AI0- MN        4. 14          .310 No_date    27: 50    53. 25   n/a      .000
13870>          [ MJ SysSt o=. 1897E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
13871> R0050: C00403-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13872>       CONTI NUOUS STANDHYD    1. 0 01: AI1            10. 61          1. 720 No_date    28: 02    60. 69   .745     .000
13873>          [ XI M=  53: TI MP=  . 62]
13874>          [ LOSS=  2 : CN=  75. 0]
13875>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
13876>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
13877>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
13878>          [SMI =  33. 81:  SMX=225. 43:  SK=  .010]
13879> R0050: C00404-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13880>       COMPUTE DUALHYD         1. 0 01: AI1            10. 61          1. 720 No_date    28: 02    60. 69   n/a      .000
13881>         Major System   /                1. 0 02: AI1- MI        .00          .000 No_date    0: 00     .00   n/a      .000
13882>         Minor System   \                1. 0 03: AI1- MN        10. 61         .993 No_date    27: 52    60. 86   n/a      .000
13883>          [ MJ SysSt o=. 4540E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
13884> R0050: C00405-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13885>       ADD HYD                 +      1. 0 02: 106- 107       111. 94        4. 129 No_date    28: 00    56. 81   n/a      .000
13886>                               +      1. 0 02: AI0- MN        4. 14          .310 No_date    27: 50    53. 25   n/a      .000
13887>                               +      1. 0 02: AI1- MN        10. 61         .993 No_date    27: 52    60. 86   n/a      .000
13888>                               SUM=   1. 0 01: MI107         126. 69        5. 432 No_date    28: 00    57. 03   n/a      .000
13889> R0050: C00406-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13890>       SAVE HYD                       1. 0 01: MI107          126. 69        5. 432 No_date    28: 00    57. 03   n/a      .000
13891>          fname : MI107. 0050
13892>          remark: Total Flows at  MI107
13893> R0050: C00407-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13894>       ROUTE PIPE              ->     1. 0 02: MI107          126. 69        5. 432 No_date    28: 00    57. 03   n/a      .000
13895> *     [RDT=  1. 00] out <-           1. 0 01: 107- 119       126. 69        5. 345 No_date    28: 00    57. 03   n/a      .000
13896>          [L/ S/ n=  114. /  . 120/ . 013]
13897>          [Vmax=  1. 927: Dmax=  1. 660]
13898>          [Dn=  1. 80: Dused=  2. 02]
13899> R0050: C00408-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13900>       ROUTE PIPE              ->     1. 0 02: 107- 119       126. 69        5. 345 No_date    28: 00    57. 03   n/a      .000
13901> *     [RDT=  1. 00] out <-           1. 0 01: 119- 108       126. 69        5. 334 No_date    28: 01    57. 03   n/a      .000
13902>          [L/ S/ n=   66. /  . 120/ . 013]
13903>          [Vmax=  1. 919: Dmax=  1. 650]
13904>          [Dn=  1. 80: Dused=  2. 01]
13905> R0050: C00409-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13906>       CONTI NUOUS STANDHYD    1. 0 01: AI2             12. 29         1. 938 No_date    28: 01    56. 26   .690     .000
13907>          [ XI M=  41: TI MP=  . 54]
13908>          [ LOSS=  2 : CN=  75. 0]
13909>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
13910>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
13911>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
13912>          [SMI =  33. 81:  SMX=225. 43:  SK=  .010]
13913> R0050: C00410-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13914>       COMPUTE DUALHYD         1. 0 01: AI2             12. 29         1. 938 No_date    28: 01    56. 26   n/a      .000
13915>         Major System   /                1. 0 02: AI2- MI        .00          .000 No_date    0: 00     .00   n/a      .000
13916>         Minor System   \                1. 0 03: AI2- MN        12. 29         1. 029 No_date    27: 50    56. 44   n/a      .000
13917>          [ MJ SysSt o=. 5545E+03,  Tot Or f Vol =. 0000E+00,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
13918> R0050: C00411-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13919>       CONTI NUOUS STANDHYD    1. 0 01: AI3             2. 59          .487 No_date    28: 01    66. 69   .818     .000
13920>          [ XI M=  71: TI MP=  . 71]
13921>          [ LOSS=  2 : CN=  75. 0]
13922>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
13923>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =  379. : MNI =. 013: SCI =    . 0]
13924>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
13925>          [SMI =  33. 81:  SMX=225. 43:  SK=  .010]
13926> R0050: C00412-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13927>       COMPUTE DUALHYD         1. 0 01: AI3             2. 59          .487 No_date    28: 01    66. 69   n/a      .000
13928>         Major System   /                1. 0 02: AI3- MI        .00          .000 No_date    0: 00     .00   n/a      .000
13929>         Minor System   \                1. 0 03: AI3- MN        2. 59          .487 No_date    28: 01    66. 69   n/a      .000
13930> R0050: C00413-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13931>       CONTI NUOUS STANDHYD    1. 0 01: Pond- Bl ock    2. 94          .430 No_date    28: 00    53. 21   .653     .000
13932>          [ XI M=  41: TI MP=  . 41]
13933>          [ LOSS=  2 : CN=  75. 0]
13934>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
13935>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =  183. : MNI =. 013: SCI =    . 0]
13936>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
13937>          [SMI =  33. 81:  SMX=225. 43:  SK=  .010]
13938> R0050: C00414-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13939>       ADD HYD                 +      1. 0 02: 119- 108       126. 69        5. 334 No_date    28: 01    57. 03   n/a      .000
13940>                               +      1. 0 02: AI3- MN        2. 59          .487 No_date    28: 01    66. 69   n/a      .000
13941>                               +      1. 0 02: AI2- MN        12. 29         1. 029 No_date    27: 50    56. 44   n/a      .000
13942>                               SUM=   1. 0 01: MI108          141. 57        6. 850 No_date    28: 01    57. 16   n/a      .000
13943> R0050: C00415-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13944>       SAVE HYD                       1. 0 01: MI108          141. 57        6. 850 No_date    28: 01    57. 16   n/a      .000
13945>          fname : MI108. 0050
13946>          remark: Total Flows at  MI108
13947> R0050: C00416-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13948>       ROUTE PIPE              ->     1. 0 02: MI108          141. 57        6. 850 No_date    28: 01    57. 16   n/a      .000
13949> *     [RDT=  1. 00] out <-           1. 0 01: 108- 116       141. 57        6. 810 No_date    28: 02    57. 16   n/a      .000
13950>          [L/ S/ n=   77. /  . 130/ . 013]
13951>          [Vmax=  2. 104: Dmax=  1. 784]
13952>          [Dn=  1. 80: Dused=  2. 17]
13953> R0050: C00417-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13954>       ROUTE PIPE              ->     1. 0 02: 108- 116       141. 57        6. 810 No_date    28: 02    57. 16   n/a      .000
13955> *     [RDT=  1. 00] out <-           1. 0 01: 116- corrig    141. 57        6. 771 No_date    28: 02    57. 16   n/a      .000
13956>          [L/ S/ n=   80. /  . 130/ . 013]
13957>          [Vmax=  2. 101: Dmax=  1. 780]
13958>          [Dn=  1. 80: Dused=  2. 17]
13959> R0050: C00418-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13960>       ADD HYD                 +      1. 0 02: 116- corrig    141. 57        6. 771 No_date    28: 02    57. 16   n/a      .000
13961>                               +      1. 0 02: Pond- Bl ock    2. 94          .430 No_date    28: 00    53. 21   n/a      .000
13962>                               SUM=   1. 0 01: Corrigan        144. 51        7. 185 No_date    28: 02    57. 08   n/a      .000
13963> R0050: C00419-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13964>       SAVE HYD                       1. 0 01: Corrigan       144. 51        7. 185 No_date    28: 02    57. 08   n/a      .000
13965>          fname : Corrigan. 0050
13966>          remark: HYD_COMMENT=["Total Flows at Corrigan Pond]
13967> R0050: C00420-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13968>       ROUTE RESERVOI R ->            1. 0 02: Corrigan       144. 51        7. 185 No_date    28: 02    57. 08   n/a      .000
13969>                       out <=         1. 0 01: Co- P          144. 51        6. 335 No_date    28: 26    57. 08   n/a      .000
13970>                       overflow <=    1. 0 03: Co- P- OVF     .00            .000 No_date    0: 00     .00   n/a      .000
13971>          [ MkSt orked=. 1027E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
13972> R0050: C00421-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13973>       ADD HYD                 +      1. 0 02: Co- P- OVF     .00            .000 No_date    0: 00     .00   n/a      .000
13974>                               +      1. 0 02: Co- P          144. 51        6. 335 No_date    28: 26    57. 08   n/a      .000
13975>                               +      1. 0 02: N_ TO          54839. 66      126. 544 No_date    36: 50    34. 15   n/a      .000
13976>                               +      1. 0 02: MI105- JR      35. 42         8. 432 No_date    28: 10    56. 62   n/a      .000
13977>                               +      1. 0 02: AI- MI- JR     .00            .000 No_date    0: 00     .00   n/a      .000
13978>                               +      1. 0 02: A9- MI         .00            .000 No_date    0: 00     .00   n/a      .000
13979>                               +      1. 0 02: AI0- MI        .00            .000 No_date    0: 00     .00   n/a      .000
13980>                               +      1. 0 02: AI1- MI        .00            .000 No_date    0: 00     .00   n/a      .000
13981>                               +      1. 0 02: AI2- MI        .00            .000 No_date    0: 00     .00   n/a      .000
13982>                               +      1. 0 02: AI3- MI        .00            .000 No_date    0: 00     .00   n/a      .000
13983>                               SUM=   1. 0 01: corrig         55019. 59      127. 077 No_date    36: 49    34. 22   n/a      .000
13984> R0050: C00422-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13985>       SAVE HYD                       1. 0 01: corrig         55019. 59      127. 077 No_date    36: 49    34. 22   n/a      .000
13986>          fname : corrig. 0050
13987>          remark: Total Flows at Corrigan Pond
13988> #*************************************************************************
13989> #    Corrigan Pond 1
13990> #    - Rating curve obtained from Barrhaven South MSS modeling
13991> #    - Tributary Drainage Area to MSS Pond 1 = 145 ha
13992> #*************************************************************************
13993> #
13994> # Hydrograph from Corrigan Drain routed to Jockvale Road
13995> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
13996> #
13997> R0050: C00423-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
13998>       ROUTE CHANNEL           ->     1. 0 02: corrig         55019. 59      127. 077 No_date    36: 49    34. 22   n/a      .000
13999>          [RDT=  1. 00] out <-           1. 0 01: N_ MI          55019. 59      127. 062 No_date    36: 52    34. 22   n/a      .000
14000>          [L/ S/ n=  580. /  . 445/ . 045]
14001>          [Vmax=  2. 066: Dmax=  1. 982]
14002> #*************************************************************************
14003> #    Catchment MILLS
14004> #    - To SWM Facility north of the Jock
14005> #    - Primarily residental development
14006> #*************************************************************************
14007> R0050: C00424-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14008>       CONTI NUOUS STANDHYD    1. 0 01: MI LLS          175. 99        17. 756 No_date    28: 06    50. 66   .622     .000
14009>          [ XI M=  38: TI MP=  . 38]
14010>          [ LOSS=  2 : CN=  74. 0]
14011>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14012>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =1118. : MNI =. 013: SCI =    . 0]
14013>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
14014>          [SMI =  36. 67:  SMX=244. 49:  SK=  .010]
14015> #*************************************************************************
14016> #    Chapman Mills SWM Pond
14017> #    - Rating curve obtained from CCL hydraulic modeling
14018> #*************************************************************************
14019> R0050: C00425-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14020>       ROUTE RESERVOI R ->            1. 0 02: MI LLS          175. 99        17. 756 No_date    28: 06    50. 66   n/a      .000
14021>                       out <=         1. 0 01: MI LL_ P        153. 87        4. 050 No_date    28: 11    50. 66   n/a      .000
14022>                       overflow <=    1. 0 03: MI L- OV        22. 12         12. 440 No_date    28: 11    50. 66   n/a      .000
14023>          [ MkSt orked=. 2310E+01  m3,  Tot Or f Vol =. 1121E+01  m3,  N- Or f=     2,  Tot Dur Or f=     1. hrs]
14024> R0050: C00426-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14025>       ADD HYD                 +      1. 0 02: N_ MI          55019. 59      127. 062 No_date    36: 52    34. 22   n/a      .000
14026>                               +      1. 0 02: MI L- OV       22. 12         12. 440 No_date    28: 11    50. 66   n/a      .000
14027>                               +      1. 0 02: MI LL_ P       153. 87        4. 050 No_date    28: 11    50. 66   n/a      .000
14028>                               SUM=   1. 0 01: SN_ MI         55195. 58      127. 649 No_date    36: 50    34. 28   n/a      .000
14029> R0050: C00427-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14030>       SAVE HYD                       1. 0 01: SN_ MI         55195. 58      127. 649 No_date    36: 50    34. 28   n/a      .000
14031>          fname : SN_ MI. 0050
14032>          remark: Total Flows at Jockvale Road
14033> #
14034> # Hydrograph from Jockvale Road routed to Heart's Desire
14035> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
14036> #
14037> R0050: C00428-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14038>       ROUTE CHANNEL           ->     1. 0 02: SN_ MI         55195. 58      127. 649 No_date    36: 50    34. 28   n/a      .000
14039>          [RDT=  1. 00] out <-           1. 0 01: N_ DE          55195. 58      127. 340 No_date    37: 05    34. 28   n/a      .000
14040>          [L/ S/ n=  1962. /  . 223/ . 045]
14041>          [Vmax=  1. 577: Dmax=  2. 491]
14042> #*************************************************************************
14043> #    Catchment  DESIRE
14044> #    - To Jock River (north of the Jock)
14045> #    - Rural-estate subdivision (Heart's Desire Community)
14046> #*************************************************************************
14047> R0050: C00429-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14048>       CONTI NUOUS STANDHYD    1. 0 01: DESI RE         23. 78         2. 563 No_date    28: 03    46. 85   .575     .000
14049>          [ XI M=  25: TI MP=  . 25]
14050>          [ LOSS=  2 : CN=  77. 0]
14051>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14052>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =  400. : MNI =. 013: SCI =    . 0]
14053>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
14054>          [SMI =  31. 15:  SMX=207. 66:  SK=  .010]
14055> #*************************************************************************
14056> #    Catchment  JOCKVA
14057> #    - To Jockvale SWM Facility
14058> #    - Residential development & golf course
14059> #    - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
14060> #      JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX- LAND 32.5 ha as
14061> #*************************************************************************
14062> R0050: C00430-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14063>       CONTI NUOUS STANDHYD    1. 0 01: JOCKVA          225. 13        25. 253 No_date    28: 07    56. 33   .691     .000
14064>          [ XI M=  50: TI MP=  . 50]
14065>          [ LOSS=  2 : CN=  74. 0]
14066>          [ Pervious      area: I Aper=  4. 67: SLPP=1. 00: LGP=   40. : MNP=. 250: SCP=    . 0]
14067>          [ I mpervious   area: I Amp=  1. 57: SLPI =1. 00: LGI =1311. : MNI =. 013: SCI =    . 0]
14068>          [ I aREC mp=    4. 00: I aREC per=    4. 00]
14069>          [SMI =  36. 67:  SMX=244. 49:  SK=  .010]
14070> R0050: C00431-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14071>       ADD HYD                 +      1. 0 02: EX- LAND- MN    31. 74         2. 275 No_date    27: 49    56. 55   n/a      .000
14072>                               +      1. 0 02: JOCKVA          225. 13        25. 253 No_date    28: 07    56. 33   n/a      .000
14073>                               +      1. 0 02: B2- MI          .00            .000 No_date    0: 00     .00   n/a      .000
14074>                               +      1. 0 02: B3- MI          .02            .083 No_date    28: 09    56. 26   n/a      .000
14075>                               SUM=   1. 0 01: JOCKVA- TO      256. 89        27. 528 No_date    28: 07    56. 36   n/a      .000
14076> R0050: C00432-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14077>       SAVE HYD                       1. 0 01: JOCKVA- TO      256. 89        27. 528 No_date    28: 07    56. 36   n/a      .000
14078>          fname : JOCKVA- TO. 0050
14079>          remark: Total Flows at KB first pond
14080> #*************************************************************************
14081> #    Jockvale SWM Facility
14082> #    - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
14083> #*************************************************************************
14084> R0050: C00433-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14085>       ROUTE RESERVOI R ->            1. 0 02: JOCKVA- TO      256. 89        27. 528 No_date    28: 07    56. 36   n/a      .000
14086>                       out <=         1. 0 01: JOCK_ P         256. 89        10. 991 No_date    28: 38    56. 36   n/a      .000
14087>                       overflow <=    1. 0 03: JO- OVF         .00            .000 No_date    0: 00     .00   n/a      .000
14088>          [ MkSt orked=. 5928E+01  m3,  Tot Or f Vol =. 0000E+00  m3,  N- Or f=     0,  Tot Dur Or f=     0. hrs]
14089> R0050: C00434-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14090>       ADD HYD                 +      1. 0 02: N_ DE           55195. 58      127. 340 No_date    37: 05    34. 28   n/a      .000
14091>                               +      1. 0 02: DESI RE         23. 78         2. 563 No_date    28: 03    46. 85   n/a      .000
14092>                               +      1. 0 02: JO- OVF         .00            .000 No_date    0: 00     .00   n/a      .000
14093>                               +      1. 0 02: JOCK_ P         256. 89        10. 991 No_date    28: 38    56. 36   n/a      .000
14094>                               SUM=   1. 0 01: SN_ DE          55476. 26      128. 229 No_date    37: 04    34. 38   n/a      .000
14095> R0050: C00435-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14096>       SAVE HYD                       1. 0 01: SN_ DE          55476. 26      128. 229 No_date    37: 04    34. 38   n/a      .000
14097>          fname : SN_ DE. 0050
14098>          remark: Total Flows at Heart's Desire
14099> #
14100> # Hydrograph from Heart's Desire routed to Rideau River
14101> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
14102> #
14103> R0050: C00436-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14104>       ROUTE CHANNEL           ->     1. 0 02: SN_ DE          55476. 26      128. 229 No_date    37: 04    34. 38   n/a      .000
14105>          [RDT=  1. 00] out <-           1. 0 01: N1              55476. 26      128. 215 No_date    37: 08    34. 38   n/a      .000
14106>          [L/ S/ n=  563. /  . 967/ . 045]
14107>          [Vmax=  2. 123: Dmax=  1. 249]
14108> #*************************************************************************
14109> #    Catchment  S- 2
14110> #    - To Jock River (north and south)
14111> #    - Undeveloped floodplain and river
14112> #*************************************************************************
14113> R0050: C00437-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14114>       CONTI NUOUS NASHYD      1. 0 01: S_ 2            102. 94        4. 795 No_date    28: 20    35. 39   .434     .000
14115>          [CN=  72. 0:  N=  3. 00:  Tp=   . 40]
14116>          [I aREC=  4. 00:  SMI =  39. 75:  SMX=264. 99:  SK=  .010]
14117>          [I nterEvent Ti me=   12. 00]
14118> R0050: C00438-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14119>       ADD HYD                 +      1. 0 02: N1              55476. 26      128. 215 No_date    37: 08    34. 38   n/a      .000
14120>                               +      1. 0 02: S_ 2            102. 94        4. 795 No_date    28: 20    35. 39   n/a      .000
14121>                               SUM=   1. 0 01: SN_ N1          55579. 20      128. 451 No_date    37: 07    34. 38   n/a      .000
14122> R0050: C00439-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14123>       SAVE HYD                       1. 0 01: SN_ N1          55579. 20      128. 451 No_date    37: 07    34. 38   n/a      .000
14124>          fname : SN_ N1. 0050
14125>          remark: Total Flows at Rideau River
14126> ##########################################################################
14127>    ** END OF RUN :      99
14128>
14129> **************************************************************************
14130>
14131>
14132>
14133>
14134>
14135>  RUN#: COMMAND#
14136> R0100: C00001-------------------------------------------------------------------------
14137>       START
14138>          [ TZERO =      . 00 hrs on          0]
14139>          [ METOUT=    2    (1= imperial, 2= metric output)]
14140>          [ NSTORM=    1 ]
14141>          [ NRUN  =  0100 ]
14142> **************************************************************************
14143> #   SWMHYMO Ver: 5. 02/ Jan 2001 <BETA> / INPUT DATA FILE
14144> **************************************************************************
14145> #   Project Name: [ Jock Ri ver]      Project Number: [ 1474- 16]
14146> #   Date        : 04- 03- 2021
14147> #   Modeller    : [ MM]
14148> #   Company     : JFSAi nc.
14149> #   License #   : 2549237
14150> **************************************************************************
14151> # CALIBRATION OF SUMMER MODEL PARAMETERS
14152> # USING CONTINUOUS SIMULATIONS
14153> # Rainfall data from JFSA raingauge installed at site + other gauges by the City
14154> # Use data collected from May 1st to July 14, 2003
14155> # 2020-11-30 change TIMSTO in COMPUTE DUALHYD (TIMSTO = 0. 1 instead of 0. 0001)
14156> # 2020-12-01 correct pond curve values
14157> # 2020-12-01 change W_CLAR_BRAZ XIMP to 0. 55, SLPI =[0. 5]/(% (impervious slope), and LGI up to 700m
14158> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 2462 (NHYDout=["N_TO"] ,NHYDin=["SN_TO"]) from 0. 033 %(as per S
14159> # 2021-02-19 Change the slope for ROUTE CHANNEL Station 5002 (NHYDout=["N_MC"] ,NHYDin=["SN_CE"]) from 0. 01 %(as per St
14160> # ---------------------------------------------------------------------
14161> R0100: C00002-------------------------------------------------------------------------
14162>       READ STORM
14163>          Filename = storm 001
14164>          Comment  = Pluie SCS de 24 hres 1: 100 ans pour Ottawa CDA
14165>          [ SDT=10. 00:  SDUR=   24. 00:  PTOT=   88. 57]
14166> R0100: C00003-------------------------------------------------------------------------
14167>       MODIFY STORM
14168>          [ REFACT=   1. 00:  TSHIFT=  960. 00 min]
14169>          [ SDT=10. 00:  SDUR=   40. 00:  PTOT=   88. 57]
14170> R0100: C00004-------------------------------------------------------------------------
14171>       DEFAULT VALUES
14172>          Filename = T: \ PROJ\ 1474- 16\ Design\ 20201026- QuantityControl Analysis\ SWMHYMO\ SMR- Model\ updated3\ CitiGate. DEF
14173>          ICASEdv   = 1 (read and print data)
14174>          FileTitle= File comment : [Based onvarious calibration exercises in Onta
14175>                     THE FOLLOWING PARAMETERS ARE USED IN THE DESIGN STANDHYD COM
14176>          Horton's infiltration equation parameters:
14177>          [Fo=  76. 20 mm/ hr]  [Fc=13. 20 mm/ hr]  [DCAY=  4. 14 /hr]  [F=   . 00 mm]
14178>          Parameters for PERVIOUS surfaces in STANDHYD:
14179>          [I Aper=    4. 67 mm]  [LGP=50. 00 m]  [MNP=   . 250]
14180>          Parameters for IMPERVIOUS surfaces in STANDHYD:
14181>          [I Aimp=    1. 57 mm]  [CLI =  1. 50]    [MNI =  . 013]
14182>          Parameters used in NASHYD:
14183>          [Ia=    4. 67 mm]  [N=  3. 00]
14184>          Average monthly Pan Evaporation data in    (mm):
14185>       JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
14186>       .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
14187>          Average monthly Potential Evapotranspiration in    (mm):
14188>       JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
14189>       .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
14190> R0100: C00005-------------------------------------------------------------------------
14191>       COMPUTE API
14192>          [ APIini =  50. 00:  APIkdy=   . 8500:  APIkdt=   . 9989]
14193>          [ APImax=119. 84:  APIavg=  69. 19:  APImin=  44. 87]
14194> #
14195> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
14196> # of 1. 32
14197> R0100: C00006-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14198>       CONTI NUOUS NASHYD      1. 0 01: JR_ HW          3680. 00       21. 616 No_date    36: 52    35. 18   .397     .000
14199>          [CN=  64. 0:  N=  3. 00:  Tp=  7. 13]
14200>          [I aREC=  4. 00:  SMI =  57. 05:  SMX=380. 32:  SK=  .010]
14201>          [I nterEvent Ti me=   12. 00]
14202> #
14203> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
14204> # of 1. 32
14205> R0100: C00007-------------DTmin-I D: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mn----RVmm R. C.---DWFcms
14206>       CONTI NUOUS NASHYD      1. 0 01: SW_ 13          971. 00        8. 203 No_date    32: 33    32. 84   .371     .000
14207>          [CN=  61. 0:  N=  3. 00:  Tp=  3. 76]
14208>          [I aREC=  4. 00:  SMI =  64. 50:  SMX=430. 01:  SK=  .010]
14209>          [I nterEvent Ti me=   12. 00]
14210> #
14211> # The Tp was modified according to a Peak Reduction factor (MTO- Chart B2- 4)
14212> # of 1. 80
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14213> R0100: C00008------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14214>       CONTINUOUS NASHYD          1.0 01: JR_GWM        3074.00    10.428 No_date    39:59    28.29 .319     .000
14215>         [CN= 55.0: N= 3.00: Tp=11.33]
14216>         [IaREC= 4.00: SMN= 83.24: SMX=554.96: SK= .010]
14217>         [InterEventTime= 12.00]
14218> R0100: C00009------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14219>       CONTINUOUS NASHYD          1.0 01: JR_ASH        1781.00    19.695 No_date    32:38    42.49 .480     .000
14220>         [CN= 72.0: N= 3.00: Tp= 3.91]
14221>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
14222>         [InterEventTime= 12.00]
14223> R0100: C00010------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14224>       CONTINUOUS NASHYD          1.0 01: SW_11          500.00    10.735 No_date    29:21    36.76 .415     .000
14225>         [CN= 66.0: N= 3.00: Tp= 1.24]
14226>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
14227>         [InterEventTime= 12.00]
14228> #
14229> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14230> # of 1.80
14231> R0100: C00011------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14232>       CONTINUOUS NASHYD          1.0 01: NN_CK         1917.00    14.496 No_date    34:24    36.76 .415     .000
14233>         [CN= 66.0: N= 3.00: Tp= 5.29]
14234>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
14235>         [InterEventTime= 12.00]
14236> #
14237> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14238> # of 1.52
14239> R0100: C00012------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14240>       CONTINUOUS NASHYD          1.0 01: SW_10         5666.00    37.663 No_date    37:48    42.49 .480     .000
14241>         [CN= 72.0: N= 3.00: Tp= 8.00]
14242>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
14243>         [InterEventTime= 12.00]
14244> #
14245> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14246> # of 1.75
14247> R0100: C00013------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14248>       CONTINUOUS NASHYD          1.0 01: KG_CK         8376.00    36.118 No_date    39:59    36.76 .415     .000
14249>         [CN= 66.0: N= 3.00: Tp=11.66]
14250>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
14251>         [InterEventTime= 12.00]
14252> #
14253> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14254> # of 1.68
14255> R0100: C00014------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14256>       CONTINUOUS NASHYD          1.0 01: SW_9          1132.00    16.501 No_date    30:52    40.82 .461     .000
14257>         [CN= 70.0: N= 3.00: Tp= 2.51]
14258>         [IaREC= 4.00: SMN= 43.07: SMX=287.10: SK= .010]
14259>         [InterEventTime= 12.00]
14260> #
14261> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14262> # of 1.82
14263> R0100: C00015------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14264>       CONTINUOUS NASHYD          1.0 01: NC_CK         4464.00    18.060 No_date    39:59    33.61 .380     .000
14265>         [CN= 62.0: N= 3.00: Tp=11.32]
14266>         [IaREC= 4.00: SMN= 61.90: SMX=412.66: SK= .010]
14267>         [InterEventTime= 12.00]
14268> #
14269> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14270> # of 1.80
14271> R0100: C00016------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14272>       CONTINUOUS NASHYD          1.0 01: SW_8          131.00     3.259 No_date    28:57    34.39 .388     .000
14273>         [CN= 63.0: N= 3.00: Tp=  .90]
14274>         [IaREC= 4.00: SMN= 59.42: SMX=396.11: SK= .010]
14275>         [InterEventTime= 12.00]
14276> #
14277> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14278> # of 1.65
14279> R0100: C00017------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14280>       CONTINUOUS NASHYD          1.0 01: HB_DR         3854.00    21.238 No_date    38:28    36.76 .415     .000
14281>         [CN= 66.0: N= 3.00: Tp= 8.42]
14282>         [IaREC= 4.00: SMN= 52.62: SMX=350.79: SK= .010]
14283>         [InterEventTime= 12.00]
14284> #
14285> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14286> # of 1.82
14287> R0100: C00018------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14288>       CONTINUOUS NASHYD          1.0 01: SW_7          3197.00    16.421 No_date    36:21    29.79 .336     .000
14289>         [CN= 57.0: N= 3.00: Tp= 6.65]
14290>         [IaREC= 4.00: SMN= 76.32: SMX=508.81: SK= .010]
14291>         [InterEventTime= 12.00]
14292> #
14293> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14294> # of 1.75
14295> R0100: C00019------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14296>       CONTINUOUS NASHYD          1.0 01: SW_6          165.00     1.511 No_date    33:01    37.57 .424     .000
14297>         [CN= 67.0: N= 3.00: Tp= 4.18]
14298>         [IaREC= 4.00: SMN= 50.55: SMX=336.97: SK= .010]
14299>         [InterEventTime= 12.00]
14300> #
14301> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14302> # of 1.67
14303> R0100: C00020------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14304>       CONTINUOUS NASHYD          1.0 01: VG_DR         1332.00    10.882 No_date    35:10    42.49 .480     .000
14305>         [CN= 72.0: N= 3.00: Tp= 5.95]
14306>         [IaREC= 4.00: SMN= 39.75: SMX=264.99: SK= .010]
14307>         [InterEventTime= 12.00]
14308> R0100: C00021------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14309>       CONTINUOUS NASHYD          1.0 01: SW_5          224.00     9.576 No_date    28:44    47.62 .538     .000
14310>         [CN= 77.0: N= 3.00: Tp=  .75]
14311>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
14312>         [InterEventTime= 12.00]
14313> #
14314> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14315> # of 1.20
14316> R0100: C00022------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14317>       CONTINUOUS NASHYD          1.0 01: FL_CK         4945.00    52.056 No_date    33:16    44.17 .499     .000
14318>         [CN= 74.0: N= 3.00: Tp= 4.45]
14319>         [IaREC= 4.00: SMN= 36.67: SMX=244.49: SK= .010]
14320>         [InterEventTime= 12.00]
14321> R0100: C00023------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14322>       CONTINUOUS NASHYD          1.0 01: SW_SA2          20.00     1.097 No_date    28:35    52.06 .588     .000
14323>         [CN= 81.0: N= 3.00: Tp=  .62]
14324>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
14325>         [InterEventTime= 12.00]
14326> #
14327> # The Tp was modified according to a Peak Reduction factor (MTO-Chart B2-4)
14328> # of 1.61
14329> R0100: C00024------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14330>       CONTINUOUS NASHYD          1.0 01: SW_5A1        1412.00    10.184 No_date    37:44    45.88 .518     .000
14331>         [CN= 75.0: N= 3.00: Tp= 8.00]
14332>         [IaREC= 4.00: SMN= 33.81: SMX=225.43: SK= .010]
14333>         [InterEventTime= 12.00]
14334> R0100: C00025------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14335>       CONTINUOUS NASHYD          1.0 01: SW_4          585.00    14.953 No_date    29:55    52.06 .588     .000
14336>         [CN= 81.0: N= 3.00: Tp= 1.75]
14337>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
14338>         [InterEventTime= 12.00]
14339> R0100: C00026------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14340>       CONTINUOUS NASHYD          1.0 01: LM_CK         1021.00    19.782 No_date    30:45    51.16 .578     .000
14341>         [CN= 80.0: N= 3.00: Tp= 2.46]
14342>         [IaREC= 4.00: SMN= 26.32: SMX=175.50: SK= .010]
14343>         [InterEventTime= 12.00]
14344> R0100: C00027------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14345>       CONTINUOUS NASHYD          1.0 01: SW_2          177.00     7.567 No_date    28:44    47.62 .538     .000
14346>         [CN= 77.0: N= 3.00: Tp=  .75]
14347>         [IaREC= 4.00: SMN= 31.15: SMX=207.66: SK= .010]
14348>         [InterEventTime= 12.00]
14349> R0100: C00028------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14350>       CONTINUOUS NASHYD          1.0 01: SM_DR         1122.00    17.981 No_date    31:42    52.06 .588     .000
14351>         [CN= 81.0: N= 3.00: Tp= 3.25]
14352>         [IaREC= 4.00: SMN= 25.21: SMX=168.09: SK= .010]
14353>         [InterEventTime= 12.00]
14354> R0100: C00029------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14355>       CONTINUOUS NASHYD          1.0 01: MD_DR         2737.00    40.730 No_date    31:28    46.75 .528     .000
14356>         [CN= 76.0: N= 3.00: Tp= 3.03]
14357>         [IaREC= 4.00: SMN= 32.46: SMX=216.39: SK= .010]
14358>         [InterEventTime= 12.00]
14359> #
14360> # Routing hydrographs
14361> #
14362> # Starting with the addition of Jock River Headwater and Subwatershed 13
14363> #
14364> R0100: C00030------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14365>       ADD HYD                    1.0 02: JR_HW         3680.00    21.616 No_date    36:52    35.18 n/a      .000
14366>                              +    1.0 02: SW_13          971.00     8.203 No_date    32:33    32.84 n/a      .000
14367>                          SUM=     1.0 01: S_NI3         4651.00    27.660 No_date    35:21    34.69 n/a      .000
14368> #
14369> # Sum of hydrographs from Node 13 routed to Node 13A
14370> # (Approximated cross-section - see cross-section 258)
14371> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
14372> #
14373> R0100: C00031------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14374>       ROUTE CHANNEL   ->         1.0 02: S_NI3         4651.00    27.660 No_date    35:21    34.69 n/a      .000
14375>         [RDT= 1.00] out <-       1.0 01: NI3A          4651.00    22.598 No_date    38:56    34.69 n/a      .000
14376>         [L/S/n= 9074./ .022/ .040]
14377>         [Vmx=  .598: Dmx= 4.178]
14378> #
14379> # Addition of Subwatershed Jock River at Goodwood Marsh to Node 13A
14380> #
14381> R0100: C00032------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14382>       ADD HYD                    1.0 02: NI3A          4651.00    22.598 No_date    38:56    34.69 n/a      .000
14383>                              +    1.0 02: JR_GWM        3074.00    10.428 No_date    39:59    28.29 n/a      .000
14384>                          SUM=     1.0 01: SNI3A         7725.00    32.845 No_date    39:44    32.14 n/a      .000
14385> #
14386> # Insertion of a reservoir to simulate the effects of the Goodwood Marsh
14387> #
14388> R0100: C00033------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14389>       ROUTE RESERVOIR ->         1.0 02: SNI3A         7725.00    32.845 No_date    39:44    32.14 n/a      .000
14390>                              out <=   1.0 01: RES_GM       7725.00     3.950 No_date    62:26    32.14 n/a      .000
14391>         [MxStOlked=.1796E+03   m3]
14392> #
14393> R0100: C00034------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14394>       SAVE HYD                   1.0 01: RES_GM        7725.00     3.950 No_date    62:26    32.14 n/a      .000
14395>         fname: H_RESGM
14396>         remark: Outflow from Res GM
14397> # Output of Reservoir Goodwood Marsh routed from Node 13A to Node 12
14398> # (Approximated cross-section - see cross-section 258)
14399> # Use n=0.04 for summer conditions and n=0.025 for spring conditions

14400> R0100: C00035------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14401>       ROUTE CHANNEL   ->         1.0 02: RES_GM        7725.00     3.950 No_date    62:26    32.14 n/a      .000
14402>         [RDT= 1.00] out <-       1.0 01: NI2           7725.00     3.947 No_date    64:43    32.14 n/a      .000
14403>         [L/S/n= 5926./ .076/ .040]
14404>         [Vmx=  .560: Dmx= 1.560]
14405> #
14406> # Addition of Subwatershed Jock River at Ashton to Node 12
14407> #
14408> R0100: C00036------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14409>       ADD HYD                    1.0 02: NI2           7725.00     3.947 No_date    64:43    32.14 n/a      .000
14410>                              +    1.0 02: JR_ASH        1781.00    19.695 No_date    32:38    42.49 n/a      .000
14411>                          SUM=     1.0 01: S_NI2         9506.00    21.745 No_date    32:41    34.08 n/a      .000
14412> R0100: C00037------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14413>       SAVE HYD                   1.0 01: S_NI2         9506.00    21.745 No_date    32:41    34.08 n/a      .000
14414>         fname: H_SNI2
14415>         remark: flow at S_NI2 near Ashton
14416> #
14417> # Sum of hydrographs from Node 12 routed to Node 11
14418> # (Approximated cross-section - see cross-section 258)
14419> # Use n=0.04 for summer conditions and n=0.025 for spring conditions
14420> #
14421> # Sum of hydrographs from Node 12 routed to Node 11 with Dummy section 248
14422> #
14423> R0100: C00038------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14424>       ROUTE CHANNEL   ->         1.0 02: S_NI2         9506.00    21.745 No_date    32:41    34.08 n/a      .000
14425>         [RDT= 1.00] out <-       1.0 01: Dum11         9506.00    21.522 No_date    32:57    34.08 n/a      .000
14426>         [L/S/n=  972./ .054/ .040]
14427>         [Vmx=  .777: Dmx= 3.194]
14428> #
14429> # Addition of Subwatershed 11 and No Name Creek to Node 11
14430> #
14431> R0100: C00039------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14432>       ADD HYD                    1.0 02: Dum11         9506.00    21.522 No_date    32:57    34.08 n/a      .000
14433>                              +    1.0 02: SW_11          500.00    10.735 No_date    29:21    36.76 n/a      .000
14434>                              +    1.0 02: NN_CK         1917.00    14.496 No_date    34:24    36.76 n/a      .000
14435>                          SUM=     1.0 01: S_NI1         11923.00   38.138 No_date    32:59    34.62 n/a      .000
14436> #
14437> # Sum of hydrographs from Node 11 routed to Node 10
14438> # Section 1
14439> #
14440> R0100: C00040------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14441>       ROUTE CHANNEL   ->         1.0 02: S_NI1         11923.00   38.138 No_date    32:59    34.62 n/a      .000
14442>         [RDT= 1.00] out <-       1.0 01: NI0           11923.00   23.609 No_date    39:19    34.62 n/a      .000
14443>         [L/S/n=14028./ .157/ .040]
14444>         [Vmx=  .486: Dmx= 1.492]
14445> #
14446> # Addition of Subwatershed 10 to Node 10
14447> #
14448> R0100: C00041------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14449>       ADD HYD                    1.0 02: NI0           11923.00   23.609 No_date    39:19    34.62 n/a      .000
14450>                              +    1.0 02: SW_10         5666.00    37.663 No_date    37:48    42.49 n/a      .000
14451>                          SUM=     1.0 01: S_NI0         17589.00   61.058 No_date    38:16    37.16 n/a      .000
14452> R0100: C00042------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14453>       SAVE HYD                   1.0 01: S_NI0         17589.00   61.058 No_date    38:16    37.16 n/a      .000
14454>         fname: H_SNI0
14455>         remark: flow at S_NI0:  NI0 + SW_10
14456> # Addition of Kings Creek to S_NI0
14457> #
14458> R0100: C00043------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14459>       ADD HYD                    1.0 02: S_NI0         17589.00   61.058 No_date    38:16    37.16 n/a      .000
14460>                              +    1.0 02: KG_CK         8376.00    36.118 No_date    39:59    36.76 n/a      .000
14461>                          SUM=     1.0 01: S_NI0A        25965.00   96.054 No_date    39:40    37.03 n/a      .000
14462> #
14463> # Sum of hydrographs from Node 10 routed to Node 9
14464> # Section 2
14465> #
14466> R0100: C00044------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14467>       ROUTE CHANNEL   ->         1.0 02: S_NI0A        25965.00   96.054 No_date    39:40    37.03 n/a      .000
14468>         [RDT= 1.00] out <-       1.0 01: N9            25965.00   94.262 No_date    39:59    37.03 n/a      .000
14469>         [L/S/n= 3982./ .075/ .040]
14470>         [Vmx=  .775: Dmx= 2.151]
14471> #
14472> # Addition of Subwatershed 9 and Nichols Creek to Node 9
14473> #
14474> R0100: C00045------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14475>       ADD HYD                    1.0 02: N9            25965.00   94.262 No_date    39:59    37.03 n/a      .000
14476>                              +    1.0 02: SW_9          1132.00    16.501 No_date    30:52    40.83 n/a      .000
14477>                              +    1.0 02: NC_CK         4464.00    18.060 No_date    39:59    33.61 n/a      .000
14478>                          SUM=     1.0 01: S_N9          31561.00   115.681 No_date    39:59    36.68 n/a      .000
14479> #
14480> # Sum of hydrographs from Node 9 routed to Node 8
14481> # Section 3
14482> #
14483> R0100: C00046------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14484>       ROUTE CHANNEL   ->         1.0 02: S_N9          31561.00   115.681 No_date    39:59    36.68 n/a      .000
14485>         [RDT= 1.00] out <-       1.0 01: N8            31561.00   109.395 No_date    39:59    36.68 n/a      .000
14486>         [L/S/n= 2269./ .088/ .045]
14487>         [Vmx=  .374: Dmx= 1.924]
14488> #
14489> # Addition of Subwatershed 8 and Hobb's Drain to Node 8
14490> #
14491> R0100: C00047------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14492>       ADD HYD                    1.0 02: N8            31561.00   109.395 No_date    39:59    36.68 n/a      .000
14493>                              +    1.0 02: SW_8          131.00     3.259 No_date    28:57    34.39 n/a      .000
14494>                              +    1.0 02: HB_DR         3854.00    21.238 No_date    38:28    36.76 n/a      .000
14495>                          SUM=     1.0 01: S_N8          35546.00   130.593 No_date    39:59    36.68 n/a      .000
14496> #
14497> # Sum of hydrographs from Node 8 routed to Node 7
14498> # Section 4
14499> #
14500> R0100: C00048------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14501>       ROUTE CHANNEL   ->         1.0 02: S_N8          35546.00   130.593 No_date    39:59    36.68 n/a      .000
14502>         [RDT= 1.00] out <-       1.0 01: N7            35546.00   111.942 No_date    44:52    36.68 n/a      .000
14503>         [L/S/n= 3750./ .053/ .070]
14504>         [Vmx=  .237: Dmx= 2.412]
14505> #
14506> # Addition of Subwatershed 7 to Node 7
14507> #
14508> R0100: C00049------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14509>       ADD HYD                    1.0 02: N7            35546.00   111.942 No_date    44:52    36.68 n/a      .000
14510>                              +    1.0 02: SW_7          3197.00    16.421 No_date    36:21    29.79 n/a      .000
14511>                          SUM=     1.0 01: S_N7          38743.00   120.740 No_date    43:36    36.11 n/a      .000
14512> R0100: C00050------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14513>       SAVE HYD                   1.0 01: S_N7          38743.00   120.740 No_date    43:36    36.11 n/a      .000
14514>         fname: H_SN7
14515>         remark: flow at S_N7:  N7 + SW_7
14516> # Insertion of a reservoir to simulate the effects of the Richmond Fen.
14517> # Storage area and volumes were estimated from available topo maps.
14518> # Release rate from fen was assumed to be controlled by the downstream
14519> # river cross-section for summer conditions.  It is was assumed that for up to
14520> # 0.75 m of water, the main channel of the river provided the storage.  Above
14521> # this depth, the wetland starts to signigicantly store water.
14522> #
14523> R0100: C00051------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14524>       ROUTE RESERVOIR ->         1.0 02: N7            38743.00   120.740 No_date    43:36    36.11 n/a      .000
14525>                              out <=   1.0 01: RES_RF       38743.00    62.351 No_date    58:25    36.11 n/a      .000
14526>         [MxStOlked=.5140E+03   m3]
14527> R0100: C00052------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14528>       SAVE HYD                   1.0 01: RES_RF        38743.00    62.351 No_date    58:25    36.11 n/a      .000
14529>         fname: H_RES_RF
14530>         remark: outflow of Richmond Fen
14531> #
14532> # Sum of hydrographs from Node 7 routed to Node 6
14533> # Section 5
14534> #
14535> R0100: C00053------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14536>       ROUTE CHANNEL   ->         1.0 02: RES_RF        38743.00    62.351 No_date    58:25    36.11 n/a      .000
14537>         [RDT= 1.00] out <-       1.0 01: N6            38743.00    62.067 No_date    59:46    36.11 n/a      .000
14538>         [L/S/n= 3056./ .082/ .025]
14539>         [Vmx=  .556: Dmx= 1.373]
14540> #
14541> # Addition of Subwatershed 6 and Van Gaal Drain to Node 6
14542> #
14543> R0100: C00054------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14544>       ADD HYD                    1.0 02: N6            38743.00    62.067 No_date    59:46    36.11 n/a      .000
14545>                              +    1.0 02: SW_6          165.00     1.511 No_date    33:01    37.57 n/a      .000
14546>                              +    1.0 02: VG_DR         1332.00    10.882 No_date    35:10    42.49 n/a      .000
14547>                          SUM=     1.0 01: S_N6          40240.01   62.114 No_date    59:39    36.33 n/a      .000
14548> #
14549> # Sum of hydrographs from Node 6 routed to Node 5
14550> # Section 6
14551> #
14552> R0100: C00055------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14553>       ROUTE CHANNEL   ->         1.0 02: S_N6          40240.01   62.114 No_date    59:39    36.33 n/a      .000
14554>         [RDT= 1.00] out <-       1.0 01: N5            40240.01   61.991 No_date    60:21    36.33 n/a      .000
14555>         [L/S/n= 1852./ .054/ .035]
14556>         [Vmx=  .494: Dmx= 1.468]
14557> #
14558> # Addition of Subwatershed 5 and Flowing Creek to Node 5
14559> #
14560> R0100: C00056------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14561>       ADD HYD                    1.0 02: N5            40240.01   61.991 No_date    60:21    36.33 n/a      .000
14562>                              +    1.0 02: SW_5          224.00     9.576 No_date    28:44    47.62 n/a      .000
14563>                              +    1.0 02: FL_CK         4945.00    52.056 No_date    33:16    44.17 n/a      .000
14564>                          SUM=     1.0 01: S_N5          45409.01   80.898 No_date    34:11    37.24 n/a      .000
14565> #
14566> # Sum of hydrographs from Node 5 routed to Node 5A
14567> # Section 7
14568> #
14569> R0100: C00057------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14570>       ROUTE CHANNEL   ->         1.0 02: S_N5          45409.01   80.898 No_date    34:11    37.24 n/a      .000
14571>         [RDT= 1.00] out <-       1.0 01: N5A           45409.01   80.666 No_date    34:28    37.24 n/a      .000
14572>         [L/S/n=  556./ .090/ .040]
14573>         [Vmx=  .546: Dmx= 1.353]
14574> #
14575> # Addition of Subwatershed 5A1 and Subwatershed 5A2 to Node 5A
14576> #
14577> R0100: C00058------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
14578>       ADD HYD                    1.0 02: N5A           45409.01   80.666 No_date    34:28    37.24 n/a      .000
14579>                              +    1.0 02: SW_5A2          20.00     1.097 No_date    28:35    52.06 n/a      .000
14580>                              +    1.0 02: SW_5A1        1412.00    10.184 No_date    37:44    45.88 n/a      .000
14581>                          SUM=     1.0 01: S_N5A         46841.01   89.756 No_date    34:38    37.51 n/a      .000
14582> #
14583> # Sum of hydrographs from Node 5A routed to Node 4
14584> # Section 8
14585> #
14586> R0100: C00059------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.---DWFcms
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14587>       ROUTE CHANNEL    ->       1. 0 02: S_N5A        46841.01   89.756 No_date    34:38   37.51  n/a      .000
14588>        [RDT= 1. 00] out <-       1. 0 01: N4           46841.01   85.943 No_date    36:10   37.51  n/a      .000
14589>         [ L/ S/ n= 4630. /  . 043/ . 035]
14590>         [ Vmx=  . 904: Dmx=  3. 866]
14591> #
14592> # Addition of Subwatershed 4 and Leamy Creek to Node 4
14593> #
14594> R0100: C00060- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14595>       ADD HYD                1. 0 02: N4           46841.01   85.943 No_date    36:10   37.51  n/a      .000
14596>                          +    1. 0 02: SW_4           585.00   14.953 No_date    29:55   52.06  n/a      .000
14597>                          +    1. 0 02: LM_CK         1021.00   19.782 No_date    30:45   51.16  n/a      .000
14598>                          SUM=  1. 0 01: S_N4        48447.00   96.618 No_date    35:12   37.97  n/a      .000
14599> R0100: C00061- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14600>       SAVE HYD               1. 0 01: S_N4         48447.00   96.618 No_date    35:12   37.97  n/a      .000
14601>          fname : S_N4. 0100
14602>          remark: flow at S_N4
14603> #
14604> # Sum of hydrographs from Node 4 routed to Node 2
14605> # Section 9
14606> #
14607> R0100: C00062- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14608>       ROUTE CHANNEL    ->       1. 0 02: S_N4         48447.00   96.618 No_date    35:12   37.97  n/a      .000
14609>        [RDT= 1. 00] out <-       1. 0 01: N2           48447.00   96.322 No_date    35:13   37.97  n/a      .000
14610>         [ L/ S/ n= 1667. /  . 060/ . 040]
14611>         [ Vmx=  . 944: Dmx=  3. 929]
14612> #
14613> # Addition of Subwatershed 2 with Monohan Drain and Smith Drain to Node 2
14614> #
14615> R0100: C00063- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14616>       ADD HYD                1. 0 02: N2           48447.00   96.322 No_date    35:13   37.97  n/a      .000
14617>                          +    1. 0 02: SW_2           177.00    7.567 No_date    28:44   47.62  n/a      .000
14618>                          +    1. 0 02: SM_DR         1122.00   17.981 No_date    31:42   52.06  n/a      .000
14619>                          +    1. 0 02: MO_DR         2737.00   40.730 No_date    31:28   46.75  n/a      .000
14620>                          SUM=  1. 0 01: S_N2        52483.00  143.580 No_date    32:59   38.76  n/a      .000
14621> R0100: C00064- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14622>       SAVE HYD               1. 0 01: S_N2         52483.00  143.580 No_date    32:59   38.76  n/a      .000
14623>          fname : H_SN2
14624>          remark: flow at S_N2 Jock River Gauge at Moodie Dr.
14625> #
14626> # Sum of hydrographs from Node 2 routed to Node 1
14627> # Section 10
14628> #
14629> #*************************************************************************
14630> #
14631> # Hydrograph from Node 2 routed to Node 416
14632> # Channel X-Section obtained from RVCA Hydraulic Model - Station 9025
14633> #
14634> R0100: C00065- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14635>       ROUTE CHANNEL    ->       1. 0 02: S_N2         52483.00  143.580 No_date    32:59   38.76  n/a      .000
14636>        [RDT= 1. 00] out <-       1. 0 01: N_416        52483.00  139.298 No_date    33:45   38.76  n/a      .000
14637>         [ L/ S/ n= 2327. /  . 050/ . 055]
14638>         [ Vmx=  . 801: Dmx=  3. 814]
14639> #*************************************************************************
14640> #    Catchment SW1a
14641> #    - Portion of RVCA catchment SW_1 outside of Reach 1 subwatershed
14642> #    - Undeveloped agricultural land
14643> #*************************************************************************
14644> R0100: C00066- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14645>       CONTI NUOUS NASHYD     1. 0 01: SW_1a          536.42    7.274 No_date    31:14   40.95  .462     .000
14646>         [ CN= 72. 0: N= 3. 00: Tp=  2. 79]
14647>         [ IaREC= 4. 00: SM N= 39. 75: SMXx=264. 99:  SK=  . 010]
14648>         [ InterEvent Time=  12. 00]
14649> R0100: C00067- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14650>       CONTI NUOUS STANDHYD   1. 0 01: S-1- Okeefe     44. 93    7. 977 No_date    28: 02   70. 58  . 797    .000
14651>         [ XI M= 6. 65: TI MP= 6. 65]
14652>         [ LOSS= 2 : CN= 75. 0]
14653>         [ Pervious      area: I Aper= 4. 67: SLPP= 2. 00: LGP=  40. : MNP= 0. 250: SCP=    . 0]
14654>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 75: LGI = 547. : MNI = 0. 013: SCI =    . 0]
14655>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14656>         [ SM N= 33. 81:  SMXx=225. 43:  SK=  . 010]
14657> R0100: C00068- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14658>       COMPUTE DUALHYD        1. 0 01: S-1- Okeefe     44. 93    7. 977 No_date    28: 02   70. 58  n/a      .000
14659>         Major System    /        1. 0 02: S-1- OkM         . 00       . 000 No_date    0: 00     . 00  n/a      .000
14660>         Minor System    \        1. 0 03: S-1- OkMN        44. 93    4. 591 No_date    27: 52   70. 65  n/a      .000
14661>         [ M_SysSt ore= 2254E+04,  Tot Orf Vol =  . 0000E+00,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14662> R0100: C00069- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14663>       ADD HYD                1. 0 02: S-1- OkM         . 00       . 000 No_date    0: 00     . 00  n/a      .000
14664>                          +    1. 0 02: S-1- OkMN        44. 93    4. 591 No_date    27: 52   70. 65  n/a      .000
14665>                          SUM=  1. 0 01: S-1- OkS        44. 93    4. 591 No_date    27: 52   70. 65  n/a      .000
14666> R0100: C00070- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14667>       ROUTE RESERVOI R  ->       1. 0 02: S-1- OkS         44. 93    4. 591 No_date    27: 52   70. 65  n/a      .000
14668>                          out <-    1. 0 01: S-1- OkSR        43. 17     . 537 No_date    28: 35   70. 65  n/a      .000
14669>                          overflow <-  1. 0 03: S-1- OkSovf    1. 76    1. 172 No_date    28: 35   70. 65  n/a      .000
14670>         [ MkSt ol ked=. 1792E+01  m3,  Tot Orf Vol =. 1240E+00  m3,  N- Orf =     2,  Tot Dur Orf =     1. hrs]
14671> R0100: C00071- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14672>       ADD HYD                1. 0 02: N_416        52483.00  139.298 No_date    33:45   38.76  n/a      .000
14673>                          +    1. 0 02: SW_1a          536.42    7.274 No_date    31:14   40.95  n/a      .000
14674>                          +    1. 0 02: S-1- OkSR        43. 17     . 537 No_date    28: 35   70. 65  n/a      .000
14675>                          +    1. 0 02: S-1- OkSovf      1. 76    1. 172 No_date    28: 35   70. 65  n/a      .000
14676>                          SUM=  1. 0 01: SN_416       53064. 36  145. 245 No_date    33: 31   38. 81  n/a      .000
14677> R0100: C00072- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14678>       SAVE HYD               1. 0 01: SN_416       53064. 36  145. 245 No_date    33: 31   38. 81  n/a      .000
14679>          fname : SN_416. 0100
14680>          remark: Total Flows at Highway 416 before Station 7245
14681> #
14682> # Hydrograph from Node 416 routed to Node at Okeefe drain
14683> # Channel X-Section obtained from RVCA Hydraulic Model - Station 7245
14684> #
14685> R0100: C00073- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14686> ROUTE CHANNEL    ->       1. 0 02: SN_416       53064. 36  145. 245 No_date    33: 31   38. 81  n/a      .000
14687>        [RDT= 1. 00] out <-       1. 0 01: N_OK         53064. 36  145. 101 No_date    33: 45   38. 81  n/a      .000
14688>         [ L/ S/ n=  497. /  . 302/ . 055]
14689>         [ Vmx= 1. 729: Dmx=  3. 269]
14690> #*************************************************************************
14691> #    Catchment OKEEFE
14692> #    - To O'Keefe drain (north of the Jock)
14693> #    - Developed with assumed 43% imp
14694> #    - 2020-12-01 add Okeefe model (Area 513.02 HA) instead of current Okeefe (Area 513.02 HA)
14695> #    - 2020-11-20 Okeefe detailed model was added as per the NOVATECH SWMHYMO model (Giti-Gate 2014).
14696> #*************************************************************************
14697> R0100: C00074- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14698>       CONTI NUOUS NASHYD     1. 0 01: O 1           63. 72    1. 380 No_date    28: 58   30. 74  . 347    .000
14699>         [ CN= 61. 0: N= 3. 00: Tp=  . 90]
14700>         [ IaREC= 4. 00: SM N= 64. 50:  SMXx=430. 01:  SK=  . 010]
14701>         [ InterEvent Time=  12. 00]
14702> R0100: C00075- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14703>       ROUTE CHANNEL    ->       1. 0 02: O 1           63. 72    1. 380 No_date    28: 58   30. 74  n/a      .000
14704>        [RDT= 1. 00] out <-       1. 0 01: O 1R          63. 72    1. 307 No_date    29: 13   30. 74  n/a      .000
14705>         [ L/ S/ n=  960. /  . 630/ . 043]
14706>         [ Vmx=  . 926: Dmx=  . 493]
14707> R0100: C00076- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14708>       CONTI NUOUS NASHYD     1. 0 01: O 2           28. 61     . 485 No_date    29: 13   28. 38  . 320    .000
14709>         [ CN= 57. 0: N= 3. 00: Tp=  1. 10]
14710>         [ IaREC= 4. 00: SM N= 76. 32:  SMXx=508. 81:  SK=  . 010]
14711>         [ InterEvent Time=  12. 00]
14712> R0100: C00077- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14713>       CONTI NUOUS NASHYD     1. 0 01: O 4           46. 94     . 650 No_date    28: 59   21. 79  . 246    .000
14714>         [ CN= 49. 0: N= 3. 00: Tp=  . 90]
14715>         [ IaREC= 4. 00: SM N=104. 59:  SMXx=697. 25:  SK=  . 010]
14716>         [ InterEvent Time=  12. 00]
14717> R0100: C00078- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14718>       ADD HYD                1. 0 02: O 1R          63. 72    1. 307 No_date    29: 13   30. 74  n/a      .000
14719>                          +    1. 0 02: O 2           28. 61     . 485 No_date    29: 13   28. 38  n/a      .000
14720>                          +    1. 0 02: O 4           46. 94     . 650 No_date    28: 59   21. 79  n/a      .000
14721>                          SUM=  1. 0 01: OKF- N       139. 27    2. 427 No_date    29: 10   27. 24  n/a      .000
14722> R0100: C00079- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14723>       ROUTE CHANNEL    ->       1. 0 02: OKF- N        139. 27    2. 427 No_date    29: 10   27. 24  n/a      .000
14724>        [RDT= 1. 00] out <-       1. 0 01: OKF- NR       139. 27    2. 423 No_date    29: 12   27. 24  n/a      .000
14725>         [ L/ S/ n=  210. /  . 810/ . 043]
14726>         [ Vmx= 1. 130: Dmx=  . 796]
14727> R0100: C00080- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14728>       CONTI NUOUS NASHYD     1. 0 01: O 6           16. 46     . 220 No_date    28: 45   18. 67  . 211    .000
14729>         [ CN= 43. 0: N= 3. 00: Tp=  . 70]
14730>         [ IaREC= 4. 00: SM N=134. 47:  SMXx=896. 47:  SK=  . 010]
14731>         [ InterEvent Time=  12. 00]
14732> R0100: C00081- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14733>       CONTI NUOUS STANDHYD   1. 0 01: O 3           39. 67    1. 454 No_date    28: 21   32. 90  . 371    .000
14734>         [ XI M= 6. 15: TI MP= 6. 30]
14735>         [ LOSS= 2 : CN= 50. 0]
14736>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 32: LGP= 440. : MNP= 0. 035: SCP=    . 0]
14737>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 32: LGI =1880. : MNI = 0. 013: SCI =    . 0]
14738>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14739>         [ SM N= 99. 77:  SMXx=665. 12:  SK=  . 010]
14740> R0100: C00082- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14741>       CONTI NUOUS STANDHYD   1. 0 01: O 5           60. 63    3. 669 No_date    28: 10   38. 00  . 429    .000
14742>         [ XI M= 6. 13: TI MP= 6. 26]
14743>         [ LOSS= 2 : CN= 61. 0]
14744>         [ Pervious      area: I Aper= 4. 67: SLPP=1. 38: LGP= 550. : MNP= 0. 035: SCP=    . 0]
14745>         [ Impervious    area: I Aimp= 1. 57: SLPI =1. 38: LGI =1450. : MNI = 0. 013: SCI =    . 0]
14746>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14747>         [ SM N= 64. 50:  SMXx=430. 01:  SK=  . 010]
14748> R0100: C00083- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14749>       ADD HYD                1. 0 02: OKF- NR       139. 27    2. 423 No_date    29: 12   27. 24  n/a      .000
14750>                          +    1. 0 02: O 3           39. 67    1. 454 No_date    28: 21   32. 90  n/a      .000
14751>                          +    1. 0 02: O 5           60. 63    3. 669 No_date    28: 10   38. 00  n/a      .000
14752>                          +    1. 0 02: O 6           16. 46     . 220 No_date    28: 45   18. 67  n/a      .000
14753>                          SUM=  1. 0 01: PT1          256. 03    5. 938 No_date    28: 19   30. 11  n/a      .000
14754> R0100: C00084- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14755>       CONTI NUOUS NASHYD     1. 0 01: O 7            5. 28     . 117 No_date    28: 37   25. 16  . 284    .000
14756>         [ CN= 54. 0: N= 3. 00: Tp=  . 60]
14757>         [ IaREC= 4. 00: SM N= 87. 01:  SMXx=580. 07:  SK=  . 010]
14758>         [ InterEvent Time=  12. 00]
14759> R0100: C00085- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14760>       ADD HYD                1. 0 02: PT1          256. 03    5. 938 No_date    28: 19   30. 11  n/a      .000
14761>                          +    1. 0 02: O 7            5. 28     . 117 No_date    28: 37   25. 16  n/a      .000
14762>                          SUM=  1. 0 01: FF           261. 31    6. 036 No_date    28: 19   30. 01  n/a      .000
14763> R0100: C00086- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14764>       ROUTE CHANNEL    ->       1. 0 02: FF           261. 31    6. 036 No_date    28: 19   30. 01  n/a      .000
14765>        [RDT= 1. 00] out <-       1. 0 01: DRAI N1      261. 31    5. 843 No_date    28: 23   30. 01  n/a      .000
14766>         [ L/ S/ n=  302. / 1. 000/ . 043]
14767>         [ Vmx=  . 853: Dmx=  . 797]
14768> R0100: C00087- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14769>       CONTI NUOUS NASHYD     1. 0 01: DI              1. 17     . 110 No_date    28: 12   50. 22  . 567    .000
14770>         [ CN= 84. 0: N= 3. 00: Tp=  . 28]
14771>         [ IaREC= 4. 00: SM N= 21. 09:  SMXx=140. 62:  SK=  . 010]
14772>         [ InterEvent Time=  12. 00]
14773> R0100: C00088- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14774>       CONTI NUOUS STANDHYD   1. 0 01: A1            2. 50     . 572 No_date    28: 01   70. 42  . 795    .000
14775>         [ XI M= 6. 68: TI MP= 6. 85]
14776>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    F=  . 00]
14777>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= 0. 250: SCP=    . 0]
14778>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  224. : MNI = 0. 013: SCI =    . 0]
14779>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14780> R0100: C00089- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14781>       ROUTE RESERVOI R  ->       1. 0 02: A1            2. 50     . 572 No_date    28: 01   70. 42  n/a      .000
14782>                          out <-    1. 0 01: A1- STR       2. 50     . 173 No_date    28: 17   70. 42  n/a      .000
14783>                          overflow <-  1. 0 03: A1- OVF       . 00     . 000 No_date    0: 00     . 00  n/a      .000
14784>         [ MkSt ol ked=. 7765E- 01  m3,  Tot Orf Vol =. 0000E+00  m3,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14785> R0100: C00090- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14786>       CONTI NUOUS STANDHYD   1. 0 01: ST- 2            . 59     . 115 No_date    28: 00   55. 78  . 630    .000
14787>         [ XI M= 6. 46: TI MP= 6. 57]
14788>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    F=  . 00]
14789>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= 0. 250: SCP=    . 0]
14790>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  109. : MNI = 0. 013: SCI =    . 0]
14791>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14792> R0100: C00091- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14793>       ROUTE RESERVOI R  ->       1. 0 02: ST- 2            . 59     . 115 No_date    28: 00   55. 78  n/a      .000
14794>                          out <-    1. 0 01: ST2STR           . 59     . 053 No_date    28: 13   55. 78  n/a      .000
14795>                          overflow <-  1. 0 03: ST2OVF        . 00     . 000 No_date    0: 00     . 00  n/a      .000
14796>         [ MkSt ol ked=. 5215E- 02  m3,  Tot Orf Vol =. 0000E+00  m3,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14797> R0100: C00092- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14798>       CONTI NUOUS NASHYD     1. 0 01: O- 8           60. 55    1. 639 No_date    29: 04   38. 99  . 440    .000
14799>         [ CN= 69. 0: N= 3. 00: Tp=  1. 00]
14800>         [ IaREC= 4. 00: SM N= 44. 82:  SMXx=298. 82:  SK=  . 010]
14801>         [ InterEvent Time=  12. 00]
14802> R0100: C00093- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14803>       ROUTE PI PE       ->       1. 0 02: O- 8           60. 55    1. 639 No_date    29: 04   38. 99  n/a      .000
14804>        [RDT= 1. 00] out <-       1. 0 01: OKPI PE        60. 55    1. 631 No_date    29: 07   38. 99  n/a      .000
14805>         [ L/ S/ n=  335. /  . 100/ . 013]
14806>         [ Vmx= 1. 305: Dmx=  . 697]
14807>         [ HGTH= 1. 20: WDTH= 1. 80]
14808> R0100: C00094- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14809>       ADD HYD                1. 0 02: DRAI N1      261. 31    5. 843 No_date    28: 23   30. 01  n/a      .000
14810>                          +    1. 0 02: DI              1. 17     . 110 No_date    28: 12   50. 22  n/a      .000
14811>                          +    1. 0 02: A1- STR         2. 50     . 173 No_date    28: 17   70. 42  n/a      .000
14812>                          +    1. 0 02: A1- OVF          . 00     . 000 No_date    0: 00     . 00  n/a      .000
14813>                          +    1. 0 02: ST2STR           . 59     . 053 No_date    28: 13   55. 78  n/a      .000
14814>                          +    1. 0 02: ST2OVF           . 00     . 000 No_date    0: 00     . 00  n/a      .000
14815>                          SUM=  1. 0 01: OKPI PE       60. 55    1. 631 No_date    29: 07   38. 99  n/a      .000
14816>                          SUM=  1. 0 01: ST2- 1N       326. 12    7. 203 No_date    28: 33   32. 11  n/a      .000
14817> R0100: C00095- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14818>       CONTI NUOUS STANDHYD   1. 0 01: A7            3. 51     . 784 No_date    28: 01   70. 42  . 795    .000
14819>         [ XI M= 6. 68: TI MP= 6. 85]
14820>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    F=  . 00]
14821>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= 0. 250: SCP=    . 0]
14822>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  265. : MNI = 0. 013: SCI =    . 0]
14823>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14824> R0100: C00096- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14825>       ROUTE RESERVOI R  ->       1. 0 02: A7            3. 51     . 784 No_date    28: 01   70. 42  n/a      .000
14826>                          out <-    1. 0 01: A7- STR         3. 51     . 240 No_date    28: 18   70. 42  n/a      .000
14827>                          overflow <-  1. 0 03: A7- OVF       . 00     . 000 No_date    0: 00     . 00  n/a      .000
14828>         [ MkSt ol ked=. 1088E+00  m3,  Tot Orf Vol =. 0000E+00  m3,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14829> R0100: C00097- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14830>       CONTI NUOUS STANDHYD   1. 0 01: ST- 3             . 71     . 138 No_date    28: 00   55. 78  . 630    .000
14831>         [ XI M= 6. 46: TI MP= 6. 57]
14832>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    F=  . 00]
14833>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= 0. 250: SCP=    . 0]
14834>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  119. : MNI = 0. 013: SCI =    . 0]
14835>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14836> R0100: C00098- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14837>       ROUTE RESERVOI R  ->       1. 0 02: ST- 3             . 71     . 138 No_date    28: 00   55. 78  n/a      .000
14838>                          out <-    1. 0 01: ST3STR           . 71     . 064 No_date    28: 13   55. 78  n/a      .000
14839>                          overflow <-  1. 0 03: ST3OVF        . 00     . 000 No_date    0: 00     . 00  n/a      .000
14840>         [ MkSt ol ked=. 6043E- 02  m3,  Tot Orf Vol =. 0000E+00  m3,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14841> R0100: C00099- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14842>       ADD HYD                1. 0 02: ST2- 1N       326. 12    7. 203 No_date    28: 33   32. 11  n/a      .000
14843>                          +    1. 0 02: A7- STR         3. 51     . 240 No_date    28: 18   70. 42  n/a      .000
14844>                          +    1. 0 02: A7- OVF          . 00     . 000 No_date    0: 00     . 00  n/a      .000
14845>                          +    1. 0 02: ST3STR           . 71     . 064 No_date    28: 13   55. 78  n/a      .000
14846>                          +    1. 0 02: ST3OVF           . 00     . 000 No_date    0: 00     . 00  n/a      .000
14847>                          SUM=  1. 0 01: ST2STR       330. 34    7. 487 No_date    28: 31   32. 57  n/a      .000
14848> R0100: C00100- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14849>       ROUTE CHANNEL    ->       1. 0 02: PT2STR       330. 34    7. 487 No_date    28: 31   32. 57  n/a      .000
14850>        [RDT= 1. 00] out <-       1. 0 01: DRAI N2      330. 34    6. 868 No_date    28: 55   32. 57  n/a      .000
14851>         [ L/ S/ n=  592. /  . 230/ . 043]
14852>         [ Vmx=  . 611: Dmx=  1. 215]
14853> R0100: C00101- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14854>       CONTI NUOUS NASHYD     1. 0 01: D2            2. 28     . 087 No_date    29: 02   50. 22  . 567    .000
14855>         [ CN= 84. 0: N= 3. 00: Tp=  . 99]
14856>         [ IaREC= 4. 00: SM N= 21. 09:  SMXx=140. 62:  SK=  . 010]
14857>         [ InterEvent Time=  12. 00]
14858> R0100: C00102- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14859>       CONTI NUOUS STANDHYD   1. 0 01: A17           12. 04    2. 382 No_date    28: 03   70. 42  . 795    .000
14860>         [ XI M= 6. 68: TI MP= 6. 85]
14861>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    F=  . 00]
14862>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= 0. 250: SCP=    . 0]
14863>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  491. : MNI = 0. 013: SCI =    . 0]
14864>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14865> R0100: C00103- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14866>       ROUTE RESERVOI R  ->       1. 0 02: A17           12. 04    2. 382 No_date    28: 03   70. 42  n/a      .000
14867>                          out <-    1. 0 01: A17STR       12. 04     . 801 No_date    28: 24   70. 42  n/a      .000
14868>                          overflow <-  1. 0 03: A17OVF        . 00     . 000 No_date    0: 00     . 00  n/a      .000
14869>         [ MkSt ol ked=. 3671E+00  m3,  Tot Orf Vol =. 0000E+00  m3,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14870> R0100: C00104- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14871>       CONTI NUOUS STANDHYD   1. 0 01: ST- 4            . 35     . 069 No_date    28: 00   55. 78  . 630    .000
14872>         [ XI M= 6. 46: TI MP= 6. 57]
14873>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    F=  . 00]
14874>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= 0. 250: SCP=    . 0]
14875>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  84. : MNI = 0. 013: SCI =    . 0]
14876>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14877> R0100: C00105- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14878>       ROUTE RESERVOI R  ->       1. 0 02: ST- 4            . 35     . 069 No_date    28: 00   55. 78  n/a      .000
14879>                          out <-    1. 0 01: ST4STR           . 35     . 032 No_date    28: 13   55. 78  n/a      .000
14880>                          overflow <-  1. 0 03: ST4OVF        . 00     . 000 No_date    0: 00     . 00  n/a      .000
14881>         [ MkSt ol ked=. 3372E- 02  m3,  Tot Orf Vol =. 0000E+00  m3,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14882> R0100: C00106- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14883>       CONTI NUOUS STANDHYD   1. 0 01: A18            5. 30    1. 139 No_date    28: 01   70. 42  . 795    .000
14884>         [ XI M= 6. 68: TI MP= 6. 85]
14885>         [ Horton parameters: Fo= 76. 20: Fc=  13. 20: DCAY= 4. 14:    F=  . 00]
14886>         [ Pervious      area: I Aper= 4. 67: SLPP=  . 50: LGP=  50. : MNP= 0. 250: SCP=    . 0]
14887>         [ Impervious    area: I Aimp= 1. 57: SLPI =  . 50: LGI =  326. : MNI = 0. 013: SCI =    . 0]
14888>         [ IaREC( mp=   4. 00: IaREC per=   4. 00]
14889> R0100: C00107- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14890>       ROUTE RESERVOI R  ->       1. 0 02: A18            5. 30    1. 139 No_date    28: 01   70. 42  n/a      .000
14891>                          out <-    1. 0 01: A18STR         5. 30     . 360 No_date    28: 20   70. 42  n/a      .000
14892>                          overflow <-  1. 0 03: A18OVF        . 00     . 000 No_date    0: 00     . 00  n/a      .000
14893>         [ MkSt ol ked=. 1636E+00  m3,  Tot Orf Vol =. 0000E+00  m3,  N- Orf =     0,  Tot Dur Orf =     0. hrs]
14894> R0100: C00108- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14895>       ADD HYD                1. 0 02: DRAI N2      330. 34    6. 868 No_date    28: 55   32. 57  n/a      .000
14896>                          +    1. 0 02: D2              2. 28     . 087 No_date    29: 02   50. 22  n/a      .000
14897>                          +    1. 0 02: A17STR       12. 04     . 801 No_date    28: 24   70. 42  n/a      .000
14898>                          +    1. 0 02: A17OVF          . 00     . 000 No_date    0: 00     . 00  n/a      .000
14899>                          +    1. 0 02: ST4STR           . 35     . 032 No_date    28: 13   55. 78  n/a      .000
14900>                          +    1. 0 02: ST4OVF           . 00     . 000 No_date    0: 00     . 00  n/a      .000
14901>                          +    1. 0 02: A18STR          5. 30    . 360 No_date    28: 20   70. 42  n/a      .000
14902>                          +    1. 0 02: A18OVF           . 00     . 000 No_date    0: 00     . 00  n/a      .000
14903>                          SUM=  1. 0 01: PT3STR       350. 31    7. 785 No_date    28: 52   34. 58  n/a      .000
14904> R0100: C00109- ---------- DTmin- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14905>       ROUTE CHANNEL    ->       1. 0 02: PT3STR       350. 31    7. 785 No_date    28: 52   34. 58  n/a      .000
14906>        [RDT= 1. 00] out <-       1. 0 01: DRAI N3      350. 31    7. 474 No_date    29: 08   34. 58  n/a      .000
14
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14961>                 +          1. 0 02: S- OVF          .00      .000 No_date    0: 00      .00  n/ a      .000
14962>             SUM=           1. 0 01: SSAOUT       364. 27     7. 924 No_date   29: 06    35. 79  n/ a      .000
14963> R0100: C00119- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14964>      SAVE HYD              1. 0 01: SSAOUT       364. 27     7. 924 No_date   29: 06    35. 79  n/ a      .000
14965>        f name : SSAOUT. 0100
14966>        r emark: SSAOUT
14967> R0100: C00120- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14968>      CONTI NUOUS STANDHYD  1. 0 01: Ar ea- A        66. 75     9. 945 No_date   28: 08    67. 64  . 764     .000
14969>        [ XI MP= . 64: TI MP= . 80]
14970>        [ Hor ton par amet er s: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    Fe= . 00]
14971>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
14972>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 50: LGI =1155. : MNI =. 013: SCI =    . 0]
14973>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
14974> R0100: C00121- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14975>      SAVE HYD              1. 0 01: Ar ea- A        66. 75     9. 945 No_date   28: 08    67. 64  n/ a      .000
14976>        f name : Ar ea- A 0100
14977>        r emrk: SMWF- A I nf l ow
14978> R0100: C00122- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14979>      ROUTE RESERVOI R - >  1. 0 02: Ar ea- A        66. 75     9. 945 No_date   28: 08    67. 64  n/ a      .000
14980>                   out <=   1. 0 01: SWMF- A        66. 75     1. 357 No_date   29: 10    67. 64  n/ a      .000
14981>             ov er f l ow <=  1. 0 03: SWMOVF          .00      .000 No_date    0: 00      .00  n/ a      .000
14982>        [ Mi St ol ked= . 3051E+01   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
14983> R0100: C00123- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14984>      SAVE HYD              1. 0 01: SWMF- A        66. 75     1. 357 No_date   29: 10    67. 64  n/ a      .000
14985>        f name : SWMF- A 0100
14986>        r emrk: SMWF- A Out f l ow
14987> R0100: C00124- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14988>      ADD HYD               1. 0 02: SSAOUT       364. 27     7. 924 No_date   29: 06    35. 79  n/ a      .000
14989>                 +          1. 0 02: SWMF- A        66. 75     1. 357 No_date   29: 10    67. 64  n/ a      .000
14990>                 +          1. 0 02: SWMOVF          .00      .000 No_date    0: 00      .00  n/ a      .000
14991>             SUM=           1. 0 01: PT4ST5       431. 02     9. 279 No_date   29: 07    40. 72  n/ a      .000
14992> R0100: C00125- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
14993>      CONTI NUOUS STANDHYD  1. 0 01: C6         1. 87      . 433 No_date   28: 01    70. 42  . 795     .000
14994>        [ XI MP= . 68: TI MP= . 85]
14995>        [ Hor ton par amet er s: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    Fe= . 00]
14996>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
14997>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 50: LGI = 193. : MNI =. 013: SCI =    . 0]
14998>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
14999> R0100: C00126- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15000>      ROUTE RESERVOI R - >  1. 0 02: C6         1. 87      . 433 No_date   28: 01    70. 42  n/ a      .000
15001>                   out <=   1. 0 01: C6- STR      1. 87      . 129 No_date   28: 16    70. 42  n/ a      .000
15002>             ov er f l ow <=  1. 0 03: C6- OVF         .00      .000 No_date    0: 00      .00  n/ a      .000
15003>        [ Mi St ol ked= . 5845E- 01   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15004> R0100: C00127- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15005>      CONTI NUOUS STANDHYD  1. 0 01: C7         1. 62      . 381 No_date   28: 00    70. 42  . 795     .000
15006>        [ XI MP= . 68: TI MP= . 85]
15007>        [ Hor ton par amet er s: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    Fe= . 00]
15008>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
15009>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 50: LGI =  180. : MNI =. 013: SCI =    . 0]
15010>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15011> R0100: C00128- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15012>      ROUTE RESERVOI R - >  1. 0 02: C7         1. 62      . 381 No_date   28: 00    70. 42  n/ a      .000
15013>                   out <=   1. 0 01: C7- STR      1. 62      . 112 No_date   28: 16    70. 42  n/ a      .000
15014>             ov er f l ow <=  1. 0 03: C7- OVF         .00      .000 No_date    0: 00      .00  n/ a      .000
15015>        [ Mi St ol ked= . 5036E- 01   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15016> R0100: C00129- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15017>      CONTI NUOUS STANDHYD  1. 0 01: ST- 6          .41      . 081 No_date   28: 00    55. 78  n/ a      .000
15018>        [ XI MP= . 46: TI MP= . 57]
15019>        [ Hor ton par amet er s: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    Fe= . 00]
15020>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP= . 50: LGP=  50. : MNP=. 250: SCP=    . 0]
15021>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 50: LGI =  91. : MNI =. 013: SCI =    . 0]
15022>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15023> R0100: C00130- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15024>      ROUTE RESERVOI R - >  1. 0 02: ST- 6          .41      . 081 No_date   28: 00    55. 78  n/ a      .000
15025>                   out <=   1. 0 01: ST6STR       .41      . 037 No_date   28: 13    55. 78  n/ a      .000
15026>             ov er f l ow <=  1. 0 03: ST6OVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15027>        [ Mi St ol ked= . 3877E- 02   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15028> R0100: C00131- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15029>      ADD HYD               1. 0 02: PT4ST5       431. 02     9. 279 No_date   29: 07    40. 72  n/ a      .000
15030>                 +          1. 0 02: C6- STR       1. 87      . 129 No_date   28: 16    70. 42  n/ a      .000
15031>                 +          1. 0 02: C6- OVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15032>                 +          1. 0 02: C7- STR       1. 62      . 112 No_date   28: 16    70. 42  n/ a      .000
15033>                 +          1. 0 02: C7- OVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15034>                 +          1. 0 02: ST6STR        .41      . 037 No_date   28: 13    55. 78  n/ a      .000
15035>                 +          1. 0 02: ST6OVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15036>             SUM=           1. 0 01: PT5ST6       434. 92     9. 426 No_date   29: 06    40. 97  n/ a      .000
15037> R0100: C00132- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15038>      ROUTE CHANNEL         - >  1. 0 02: PT5ST6       434. 92     9. 426 No_date   29: 06    40. 97  n/ a      .000
15039>        [ RDT= 1. 00] out <-    1. 0 01: DRAI N4       434. 92     9. 061 No_date   29: 16    40. 97  n/ a      .000
15040>        [ L/ S/ n=   324. /  . 100/ . 043]
15041>        [ Vmx=   . 507: Dmx=  1. 619]
15042> R0100: C00133- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15043>      CONTI NUOUS NASHYD    1. 0 01: DI           1. 73      . 112 No_date   28: 33    57. 07  . 644     .000
15044>        [ CN= 88. 0: N= 3. 00: Tp=   . 60]
15045>        [ I aREC= 4. 00: SM N= 14. 94: SMX= 99. 61: SK=  . 010]
15046>        [ I nter Event Ti me=  12. 00]
15047> R0100: C00134- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15048>      CONTI NUOUS STANDHYD  1. 0 01: Ar ea- B        24. 04     4. 871 No_date   28: 02    66. 17  . 747     .000
15049>        [ XI MP= . 62: TI MP= . 77]
15050>        [ Hor ton par amet er s: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:    Fe= . 00]
15051>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP=1. 40: LGP=  50. : MNP=. 250: SCP=    . 0]
15052>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI =1. 40: LGI =  693. : MNI =. 013: SCI =    . 0]
15053>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15054> R0100: C00135- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15055>      ROUTE RESERVOI R - >  1. 0 02: Ar ea- B        24. 04     4. 871 No_date   28: 02    66. 17  n/ a      .000
15056>                   out <=   1. 0 01: SWMF- B        24. 04      . 641 No_date   28: 41    66. 17  n/ a      .000
15057>             ov er f l ow <=  1. 0 03: SWMOVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15058>        [ Mi St ol ked= . 9727E+00   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15059> R0100: C00136- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15060>      ADD HYD               1. 0 02: DRAI N4       434. 92     9. 061 No_date   29: 16    40. 97  n/ a      .000
15061>                 +          1. 0 02: DI           1. 73      . 112 No_date   28: 33    57. 07  n/ a      .000
15062>                 +          1. 0 02: SWMF- B        24. 04      . 641 No_date   28: 41    66. 17  n/ a      .000
15063>                 +          1. 0 02: SWMOVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15064>             SUM=           1. 0 01: DI- EX        460. 69     9. 722 No_date   29: 15    42. 35  n/ a      .000
15065> R0100: C00137- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15066>      ROUTE CHANNEL         - >  1. 0 02: DI- EX        460. 69     9. 722 No_date   29: 15    42. 35  n/ a      .000
15067>        [ RDT= 1. 00] out <-    1. 0 01: DRAI N5       460. 69     9. 564 No_date   29: 26    42. 35  n/ a      .000
15068>        [ L/ S/ n=   413. /  . 160/ . 033]
15069>        [ Vmx=   . 703: Dmx=  1. 106]
15070> R0100: C00138- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15071>      CONTI NUOUS NASHYD    1. 0 01: D5           1. 90      . 104 No_date   28: 40    54. 04  . 610     .000
15072>        [ CN= 86. 0: N= 3. 00: Tp=   . 69]
15073>        [ I aREC= 4. 00: SM N= 17. 43: SMX= 116. 21: SK=  . 010]
15074>        [ I nter Event Ti me=  12. 00]
15075> R0100: C00139- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15076>      CONTI NUOUS NASHYD    1. 0 01: O- 13SDF      9. 74      . 675 No_date   28: 21    50. 83  . 574     .000
15077>        [ CN= 81. 0: N= 3. 00: Tp=   . 43]
15078>        [ I aREC= 4. 00: SM N= 25. 21: SMX= 168. 09: SK=  . 010]
15079>        [ I nter Event Ti me=  12. 00]
15080> R0100: C00140- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15081>      ROUTE RESERVOI R - >  1. 0 02: O- 13SDF      9. 74      . 675 No_date   28: 21    50. 83  n/ a      .000
15082>                   out <=   1. 0 01: SDF          9. 74      . 070 No_date   30: 50    50. 83  n/ a      .000
15083>             ov er f l ow <=  1. 0 03: OVFSDF          .00      .000 No_date    0: 00      .00  n/ a      .000
15084>        [ Mi St ol ked= . 2813E+00   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15085> R0100: C00141- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15086>      ADD HYD               1. 0 02: DRAI N5       460. 69     9. 564 No_date   29: 26    42. 35  n/ a      .000
15087>                 +          1. 0 02: DI           1. 90      . 104 No_date   28: 40    54. 04  n/ a      .000
15088>                 +          1. 0 02: SDF          9. 74      . 070 No_date   30: 50    50. 83  n/ a      .000
15089>             SUM=           1. 0 01: PT6MC        472. 33     9. 694 No_date   29: 26    42. 57  n/ a      .000
15090> R0100: C00142- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15091>      CONTI NUOUS NASHYD    1. 0 01: O- 15        10. 67      . 940 No_date   28: 13    49. 72  . 561     .000
15092>        [ CN= 82. 0: N= 3. 00: Tp=   . 30]
15093>        [ I aREC= 4. 00: SM N= 23. 09: SMX= 153. 94: SK=  . 010]
15094>        [ I nter Event Ti me=  12. 00]
15095> R0100: C00143- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15096>      ADD HYD               1. 0 02: PT6MC        472. 33     9. 694 No_date   29: 26    42. 57  n/ a      .000
15097>                 +          1. 0 02: O- 15        10. 67      . 940 No_date   28: 13    49. 72  n/ a      .000
15098>             SUM=           1. 0 01: MC           483. 00     9. 844 No_date   29: 26    42. 73  n/ a      .000
15099> R0100: C00144- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15100>      ROUTE CHANNEL         - >  1. 0 02: MC           483. 00     9. 844 No_date   29: 26    42. 73  n/ a      .000
15101>        [ RDT= 1. 00] out <-    1. 0 01: O- 14Ch       483. 00     8. 880 No_date   29: 52    42. 73  n/ a      .000
15102>        [ L/ S/ n=   845. /  . 100/ . 033]
15103>        [ Vmx=   . 556: Dmx=  1. 861]
15104> R0100: C00145- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15105>      CONTI NUOUS NASHYD    1. 0 01: O- 14         5. 00      . 722 No_date   28: 04    49. 72  . 561     .000
15106>        [ CN= 82. 0: N= 3. 00: Tp=   . 13]
15107>        [ I aREC= 4. 00: SM N= 23. 09: SMX= 153. 94: SK=  . 010]
15108>        [ I nter Event Ti me=  12. 00]
15109> R0100: C00146- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15110>      ADD HYD               1. 0 02: O- 14Ch       483. 00     8. 880 No_date   29: 52    42. 73  n/ a      .000
15111>                 +          1. 0 02: O- 14         5. 00      . 722 No_date   28: 04    49. 72  n/ a      .000
15112>             SUM=           1. 0 01: OKEEFE       488. 00     8. 925 No_date   29: 52    42. 80  n/ a      .000
15113> #*************************************************************************
15114> #     Okeefe Pond
15115> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
15116> #       and a ratio of the catchment area to the West Clarke pond rating curve
15117> #       from the MES for the next coordinates
15118> #*************************************************************************
15119> R0100: C00147- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15120>      CONTI NUOUS STANDHYD  1. 0 01: S- 1- D2        18. 67     3. 580 No_date   28: 01    70. 58  . 797     .000
15121>        [ XI MP= . 65: TI MP= . 65]
15122>        [ LOSS= 2 : CN= 75. 0]
15123>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
15124>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 75: LGI =  353. : MNI =. 013: SCI =    . 0]
15125>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15126>        [ SM N= 33. 81: SMX= 225. 07: SK=  . 010]
15127> R0100: C00148- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15128>      COMPUTE DUALHYD       1. 0 01: S- 1- D2        18. 67     3. 580 No_date   28: 01    70. 58  n/ a      .000
15129>        Maj or Syst em      /  1. 0 02: S- 1- D2J         .00      .000 No_date    0: 00      .00  n/ a      .000
15130>        Mi nor Syst em      \  1. 0 03: S- 1- D2N       18. 67     2. 097 No_date   27: 52    70. 87  n/ a      .000
15131>        [ Mj Sys St o=. 8794E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15132> R0100: C00149- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15133>      ADD HYD               1. 0 02: S- 1- D2J          .00      .000 No_date    0: 00      .00  n/ a      .000
15134>                 +          1. 0 02: S- 1- D2N       18. 67     2. 097 No_date   27: 52    70. 87  n/ a      .000
15135>             SUM=           1. 0 01: S- 1- D2S       18. 67     2. 097 No_date   27: 52    70. 87  n/ a      .000
15136> R0100: C00150- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15137>      ROUTE RESERVOI R - >  1. 0 02: S- 1- D2S       18. 67     2. 097 No_date   27: 52    70. 87  n/ a      .000
15138>                   out <=   1. 0 01: S- 1- D2R       17. 89      . 223 No_date   28: 30    70. 87  n/ a      .000
15139>             ov er f l ow <=  1. 0 03: S- 1- D2Rovf        .78      . 526 No_date   28: 30    70. 87  n/ a      .000
15140>        [ Mi St ol ked= . 7445E+00   m3,  Tot Ov f Vol =. 5562E- 01   m3,  N- Ov f =     3,  Tot Dur Ov f =     1. hr s]
15141> R0100: C00151- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15142>      CONTI NUOUS STANDHYD  1. 0 01: S- 1- D3        6. 79      1. 405 No_date   28: 00    70. 58  . 797     .000
15143>        [ XI MP= . 65: TI MP= . 65]
15144>        [ LOSS= 2 : CN= 75. 0]
15145>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
15146>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 75: LGI =  213. : MNI =. 013: SCI =    . 0]
15147>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15148>        [ SM N= 33. 81: SMX= 225. 43: SK=  . 010]
15149> R0100: C00152- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15150>      COMPUTE DUALHYD       1. 0 01: S- 1- D3        6. 79      1. 405 No_date   28: 00    70. 58  n/ a      .000
15151>        Maj or Syst em      /  1. 0 02: S- 1- D3J         .00      .000 No_date    0: 00      .00  n/ a      .000
15152>        Mi nor Syst em      \  1. 0 03: S- 1- D3N        6. 79      . 831 No_date   27: 51    70. 87  n/ a      .000
15153>        [ Mj Sys St o=. 3005E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15154> R0100: C00153- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15155>      ADD HYD               1. 0 02: S- 1- D3J         .00      .000 No_date    0: 00      .00  n/ a      .000
15156>                 +          1. 0 02: S- 1- D3N        6. 79      . 831 No_date   27: 51    70. 87  n/ a      .000
15157>             SUM=           1. 0 01: S- 1- D3S        6. 79      . 831 No_date   27: 51    70. 87  n/ a      .000
15158> R0100: C00154- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15159>      ROUTE RESERVOI R - >  1. 0 02: S- 1- D3S        6. 79      . 831 No_date   27: 51    70. 87  n/ a      .000
15160>                   out <=   1. 0 01: S- 1- D3R        6. 51      . 081 No_date   28: 27    70. 87  n/ a      .000
15161>             ov er f l ow <=  1. 0 03: S- 1- D3Rovf        .28      . 186 No_date   28: 27    70. 87  n/ a      .000
15162>        [ Mi St ol ked= . 2708E+00   m3,  Tot Ov f Vol =. 2018E- 01   m3,  N- Ov f =     2,  Tot Dur Ov f =     1. hr s]
15163> R0100: C00155- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15164>      ADD HYD               1. 0 02: N_OK         53064. 36   145. 101 No_date   33: 45    38. 81  n/ a      .000
15165>                 +          1. 0 02: OKEEFE       488. 00     8. 925 No_date   29: 52    42. 80  n/ a      .000
15166>                 +          1. 0 02: S- 1- D2R        17. 89      . 223 No_date   28: 30    70. 87  n/ a      .000
15167>                 +          1. 0 02: S- 1- D3R        6. 51      . 081 No_date   28: 27    70. 87  n/ a      .000
15168>                 +          1. 0 02: S- 1- D3Rovf        .78      . 526 No_date   28: 30    70. 87  n/ a      .000
15169>                 +          1. 0 02: S- 1- D3Rovf        .28      . 186 No_date   28: 27    70. 87  n/ a      .000
15170>             SUM=           1. 0 01: SN_OK        53577. 81   148. 295 No_date   33: 05    38. 86  n/ a      .000
15171> R0100: C00156- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15172>      SAVE HYD              1. 0 01: SN_OK        53577. 81   148. 295 No_date   33: 05    38. 86  n/ a      .000
15173>        f name : SN_OK 0100
15174>        r emark: Total Flows at Okeefe Drain
15175> #
15176> # Hydrograph from Node Okeefe routed to Node at Foster Drain
15177> # Channel- X-Section obtained from RVCA Hydraulic Model - Station 6215
15178> #
15179> R0100: C00157- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15180>      ROUTE CHANNEL         - >  1. 0 02: SN_OK        53577. 81   148. 295 No_date   33: 05    38. 86  n/ a      .000
15181>        [ RDT= 1. 00] out <-    1. 0 01: N_FO         53577. 81   147. 939 No_date   33: 45    38. 86  n/ a      .000
15182>        [ L/ S/ n=  1183. /  . 076/ . 035]
15183>        [ Vmx=  1. 295: Dmx=  3. 590]
15184> #*************************************************************************
15185> #     Catchment FOSTER
15186> #     - To Foster ditch (north of the Jock)
15187> #     - Partially developed (medium density): remaining agricultural
15188> #     - 2020-12-01 JFSA Foster area is 332 as per Foster SWMF Environmental Study Report, CH2MHILL, Aug 2013.
15189> #     - 2020-12-01 decrease Foster drainage area from (373 HA) to (307.98 HA) after increasing Okeefe drainage area to (5
15190> #     - 2021-02-12    update Foster area to 325.44 ha as measured from QGIS
15191> #*************************************************************************
15192> R0100: C00158- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15193>      CONTI NUOUS STANDHYD  1. 0 01: FOSTER       325. 44    36. 526 No_date   28: 10    65. 13  . 735     .000
15194>        [ XI MP= . 55: TI MP= . 55]
15195>        [ LOSS= 2 : CN= 74. 0]
15196>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
15197>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 50: LGI =1473. : MNI =. 013: SCI =    . 0]
15198>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15199>        [ SM N= 36. 67: SMX= 244. 49: SK=  . 010]
15200> #*************************************************************************
15201> #     Foster Pond
15202> #     - Rating curve obtained assuming 40m3/ ha in 24 hours for quality control
15203> #       and a ratio of the catchment area to the West Clarke pond rating curve
15204> #       from the MES for the next coordinates
15205> #*************************************************************************
15206> R0100: C00159- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15207>      ROUTE RESERVOI R - >  1. 0 02: FOSTER       325. 44    36. 526 No_date   28: 10    65. 13  n/ a      .000
15208>                   out <=   1. 0 01: P_FOS        325. 44     9. 091 No_date   29: 01    65. 13  n/ a      .000
15209>             ov er f l ow <=  1. 0 03: FO- OVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15210>        [ Mi St ol ked= . 8792E+01   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15211> R0100: C00160- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15212>      ADD HYD               1. 0 02: P_FOS        325. 44     9. 091 No_date   29: 01    65. 13  n/ a      .000
15213>                 +          1. 0 02: FO- OVF          .00      .000 No_date    0: 00      .00  n/ a      .000
15214>             SUM=           1. 0 01: FOSTER- OUT  325. 44     9. 091 No_date   29: 01    65. 13  n/ a      .000
15215> #*************************************************************************
15216> R0100: C00161- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15217>      CONTI NUOUS STANDHYD  1. 0 01: W_CLAR_BRA     73. 29     11. 683 No_date   28: 05    70. 23  . 793     .000
15218>        [ XI MP= . 60: TI MP= . 65]
15219>        [ LOSS= 2 : CN= 77. 0]
15220>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=    . 0]
15221>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 50: LGI =  699. : MNI =. 013: SCI =    . 0]
15222>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15223>        [ SM N= 31. 15: SMX= 207. 66: SK=  . 010]
15224> R0100: C00162- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15225>      ROUTE RESERVOI R - >  1. 0 02: W_CLAR_BRA     73. 29     11. 683 No_date   28: 05    70. 23  n/ a      .000
15226>                   out <=   1. 0 01: MS_P10       73. 29      1. 240 No_date   29: 12    70. 23  n/ a      .000
15227>             ov er f l ow <=  1. 0 03: OVF             .00      .000 No_date    0: 00      .00  n/ a      .000
15228>        [ Mi St ol ked= . 2223E+01   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15229> R0100: C00163- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15230>      CONTI NUOUS STANDHYD  1. 0 01: S- 1- FO- D2        4. 94      . 896 No_date   28: 00    65. 13  . 735     .000
15231>        [ XI MP= . 55: TI MP= . 55]
15232>        [ LOSS= 2 : CN= 74. 0]
15233>        [ P er vi ous       ar ea: I Ap= 4. 67: SLPP=  . 50: LGP=  40. : MNP=. 250: SCP=    . 0]
15234>        [ I mper vi ous     ar ea: I Ai m= 1. 57: SLPI = . 50: LGI =  181. : MNI =. 013: SCI =    . 0]
15235>        [ I aREC i mp=   4. 00: I aREC per = 4. 00]
15236>        [ SM N= 36. 67: SMX= 244. 49: SK=  . 010]
15237> R0100: C00164- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15238>      COMPUTE DUALHYD       1. 0 01: S- 1- FO- D2        4. 94      . 896 No_date   28: 00    65. 13  n/ a      .000
15239>        Maj or Syst em      /  1. 0 02: S- 1- FO- D2J         .00      .000 No_date    0: 00      .00  n/ a      .000
15240>        Mi nor Syst em      \  1. 0 03: S- 1- FO- D2N        4. 94      . 508 No_date   27: 51    65. 14  n/ a      .000
15241>        [ Mj Sys St o=. 2151E+03,  Tot Ov f Vol =. 0000E+00,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15242> R0100: C00165- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15243>      ADD HYD               1. 0 02: S- 1- FO- D2J         .00      .000 No_date    0: 00      .00  n/ a      .000
15244>                 +          1. 0 02: S- 1- FO- D2N        4. 94      . 508 No_date   27: 51    65. 14  n/ a      .000
15245>             SUM=           1. 0 01: S- 1- FO- D2S        4. 94      . 508 No_date   27: 51    65. 14  n/ a      .000
15246> R0100: C00166- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15247>      ROUTE RESERVOI R - >  1. 0 02: S- 1- FO- D2S        4. 94      . 508 No_date   27: 51    65. 14  n/ a      .000
15248>                   out <=   1. 0 01: S- 1- FO- D2R        4. 94      . 057 No_date   29: 33    65. 14  n/ a      .000
15249>             ov er f l ow <=  1. 0 03: S- 1- FOD2ovf       .00      .000 No_date    0: 00      .00  n/ a      .000
15250>        [ Mi St ol ked= . 1916E+00   m3,  Tot Ov f Vol =. 0000E+00   m3,  N- Ov f =     0,  Tot Dur Ov f =     0. hr s]
15251> R0100: C00167- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms- TpeakDat e_hh: mm- - - - RVmm R. C. - - - DWFcms
15252>      ADD HYD               1. 0 02: FOSTER- OUT  325. 44     9. 091 No_date   29: 01    65. 13  n/ a      .000
15253>                 +          1. 0 02: S- 1- FO- D2R        4. 94      . 057 No_date   29: 33    65. 14  n/ a      .000
15254>                 +          1. 0 02: S- 1- FOD2ovf        .00      .000 No_date    0: 00      .00  n/ a      .000
15255>             SUM=           1. 0 01: 980          330. 38     9. 147 No_date   29: 01    65. 13  n/ a      .000
15256> R0100: C00168- ---------- DTmi n- I D: NHYD- ---------- AREAha- QPEAKcms
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15335>        [ Impervious    area:  I A\ mp=   .79: SLPI = .75: LGI = 187. : MNI = .013: SCI =     .0]
15336>        [ IaREG mp=     4. 00:  I aREC per=     4. 00]
15337> R0100: C00182- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15338>      COMPUTE DUALHYD          1. 0 01: S- 1- D8          5. 27      1. 181  No_date    28: 01    51. 48   n/ a      .000
15339>      Major System    /        1. 0 02: S- 1- D8J          .00       .000  No_date    0: 00      .00    n/ a      .000
15340>      Minor System    \        1. 0 03: S- 1- D8N         5. 27      .672  No_date    27: 52    51. 52   n/ a      .000
15341>      [ MjSys to=. 3055E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15342> R0100: C00183- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15343>      ADD HYD                  1. 0 02: S- 1- D8J          .00       .000  No_date    0: 00      .00    n/ a      .000
15344>                         +     1. 0 02: S- 1- D8N         5. 27      .672  No_date    27: 52    51. 52   n/ a      .000
15345>                         SUM=  1. 0 01: S- 1- D8S         5. 27      .672  No_date    27: 52    51. 52   n/ a      .000
15346> R0100: C00184- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15347>      ROUTE RESERVOIR - >      1. 0 02: S- 1- D8S         5. 27      .672  No_date    27: 52    51. 52   n/ a      .000
15348>                         out <=  1. 0 01: S- 1- D8R         5. 27      .061  No_date    28: 45    51. 52   n/ a      .000
15349>                         overf low <=  1. 0 03: S- 1- D8Rovf      .00       .000  No_date    0: 00      .00    n/ a      .000
15350>      [ MkSto ls ed=. 2034E+00   m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15351> R0100: C00185- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15352>      CONTI NUOUS NASHYD       1. 0 01: S- 1- A           75. 88     3. 578  No_date    28: 36    45. 95   . 519     .000
15353>      [ CN= 77. 0:  N= 3. 00:  Tp=   .62]
15354>      [ IaREC= 4. 00:  SMI N= 31. 15:  SMAX= 207. 66:  SK=  . 010]
15355>      [ I nterEvent Time=  12. 00]
15356> R0100: C00186- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15357>      CONTI NUOUS NASHYD       1. 0 01: W_CLAR_UND       35. 65     1. 108  No_date    29: 10    45. 95   . 519     .000
15358>      [ CN= 77. 0:  N= 3. 00:  Tp= 1. 10]
15359>      [ IaREC= 4. 00:  SMI N= 31. 15:  SMAX= 207. 66:  SK=  . 010]
15360>      [ I nterEvent Time=  12. 00]
15361> R0100: C00187- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15362>      ADD HYD                  1. 0 02: N_FO           53577. 81  147. 939  No_date    33: 45    38. 86   n/ a      .000
15363>                         +     1. 0 02: S20- out         335. 49    8. 685  No_date    29: 42    65. 21   n/ a      .000
15364>                         +     1. 0 02: M_P10           73. 29    1. 240  No_date    29: 12    70. 23   n/ a      .000
15365>                         +     1. 0 02: P10- OVF          .00       .000  No_date    0: 00      .00    n/ a      .000
15366>                         +     1. 0 02: W_CLAR_UND       35. 65    1. 108  No_date    29: 10    45. 95   n/ a      .000
15367>                         +     1. 0 02: S- 1Fo Flo vrf     .56       .392  No_date    28: 32    70. 35   n/ a      .000
15368>                         +     1. 0 02: S- 1FO- F- DR    14. 40     . 179  No_date    28: 32    70. 35   n/ a      .000
15369>                         +     1. 0 02: S- 1- D8Rovf      .00       .000  No_date    0: 00      .00    n/ a      .000
15370>                         +     1. 0 02: S- 1- D8R         5. 27      .061  No_date    28: 45    51. 52   n/ a      .000
15371>                         +     1. 0 02: S- 1- A           75. 88    3. 578  No_date    28: 36    45. 95   n/ a      .000
15372>                         SUM=  1. 0 01: SN_FO          54118. 35  153. 648  No_date    33: 27    39. 09   n/ a      .000
15373> R0100: C00188- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15374>      SAVE HYD                 1. 0 01: SN_FO          54118. 35  153. 648  No_date    33: 27    39. 09   n/ a      .000
15375>           fname : SN_FO 0100
15376>           remark: Total Flows at Foster Drain
15377> # Hydrograph from Node Foster routed to Node at Cedarview Road
15378> # Channel X- Section obtained from RVCA Hydraulic Model - Station 6016
15379> #
15380> R0100: C00189- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15381>      ROUTE CHANNEL    - >     1. 0 02: SN_FO          54118. 35  153. 648  No_date    33: 27    39. 09   n/ a      .000
15382> *    [ RDT= 1. 00]  out <-     1. 0 01: N_CE           54118. 35  153. 522  No_date    33: 28    39. 09   n/ a      .000
15383>      [ L/ S/ n=   159. /  . 082/ . 035]
15384>      [ Vmax= 1. 456:  Dmax= 4. 475]
15385> #*************************************************************************
15386> #    Catchment S- 1
15387> #    - To Jock River (north and south of Jock)
15388> #    - Primarily agricultural fields; portion of sand quarry
15389> #*************************************************************************
15390> R0100: C00190- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15391>      CONTI NUOUS NASHYD       1. 0 01: S- 1- B           55. 36     3. 260  No_date    28: 23    45. 95   . 519     .000
15392>      [ CN= 77. 0:  N= 3. 00:  Tp=   .45]
15393>      [ IaREC= 4. 00:  SMI N= 31. 15:  SMAX= 207. 66:  SK=  . 010]
15394>      [ I nterEvent Time=  12. 00]
15395> #    -   JFSA 2021- 02- 24 change the name from S- 1- BCDC to S- 1- A and S- 1- B.  Change their TP values based on the new areas
15396> #    -   JFSA 2021- 02- 24 "S- 1- BCDC- 1" and "S- 1- BCDC- 2" are not existing anymre.  "S- 1- BCDC- 1" is part of "S- 1- FO- D2" and
15397> #    -   JFSA 2021- 01- 19, after adding Greenbank pond, "S- 1- BCDC- 3" is not existing anymre
15398> R0100: C00191- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15399>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D1          21. 67     4. 117  No_date    28: 01    70. 58   . 797     .000
15400>      [ XI MP= 65: TI MP= 65]
15401>      [ LOSS= 2 : CN= 75. 0]
15402>      [ Pervious      area:  I Aper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=     .0]
15403>      [ Impervious    area:  I A\ mp=  1. 57: SLPI = . 75: LGI = 380. : MNI = . 013: SCI =     .0]
15404>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15405>      [ SMI N= 33. 81:  SMAX= 225. 43:  SK=  . 010]
15406> R0100: C00192- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15407>      COMPUTE DUALHYD          1. 0 01: S- 1- D1          21. 67     4. 117  No_date    28: 01    70. 58   n/ a      .000
15408>      Major System    /        1. 0 02: S- 1- D1J          .00       .000  No_date    0: 00      .00    n/ a      .000
15409>      Minor System    \        1. 0 03: S- 1- D1N         21. 67     2. 409  No_date    27: 52    70. 60   n/ a      .000
15410>      [ MjSys to=. 1024E+04,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15411> R0100: C00193- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15412>      ADD HYD                  1. 0 02: S- 1- D1J          .00       .000  No_date    0: 00      .00    n/ a      .000
15413>                         +     1. 0 02: S- 1- D1N         21. 67     2. 409  No_date    27: 52    70. 60   n/ a      .000
15414>                         SUM=  1. 0 01: S- 1- D1S         21. 67     2. 409  No_date    27: 52    70. 60   n/ a      .000
15415> R0100: C00194- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15416>      ROUTE RESERVOIR - >      1. 0 02: S- 1- D1S         21. 67     2. 409  No_date    27: 52    70. 60   n/ a      .000
15417>                         out <=  1. 0 01: S- 1- D1R         20. 84     . 259  No_date    28: 32    70. 60   n/ a      .000
15418>                         overf low <=  1. 0 03: S- 1- D1Rovf      .83       .580  No_date    28: 32    70. 60   n/ a      .000
15419>      [ MkSto ls ed=. 8642E+00   m3,  Tot Or f Vol =. 5868E- 01   m3,  N- Or f =      3,  Tot Dur Or f =     1. hrs]
15420> R0100: C00195- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15421>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D4           3. 28      .705  No_date    28: 00    70. 58   . 797     .000
15422>      [ XI MP= 65: TI MP= 65]
15423>      [ LOSS= 2 : CN= 75. 0]
15424>      [ Pervious      area:  I Aper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=     .0]
15425>      [ Impervious    area:  I A\ mp=  1. 57: SLPI = . 75: LGI = 148. : MNI = . 013: SCI =     .0]
15426>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15427>      [ SMI N= 33. 81:  SMAX= 225. 43:  SK=  . 010]
15428> R0100: C00196- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15429>      COMPUTE DUALHYD          1. 0 01: S- 1- D4           3. 28      .705  No_date    28: 00    70. 58   n/ a      .000
15430>      Major System    /        1. 0 02: S- 1- D4J          .00       .000  No_date    0: 00      .00    n/ a      .000
15431>      Minor System    \        1. 0 03: S- 1- D4N          3. 28      .421  No_date    27: 51    70. 91   n/ a      .000
15432>      [ MjSys to=. 1397E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15433> R0100: C00197- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15434>      ADD HYD                  1. 0 02: S- 1- D4J          .00       .000  No_date    0: 00      .00    n/ a      .000
15435>                         +     1. 0 02: S- 1- D4N          3. 28      .421  No_date    27: 51    70. 91   n/ a      .000
15436>                         SUM=  1. 0 01: S- 1- D4S          3. 28      .421  No_date    27: 51    70. 91   n/ a      .000
15437> R0100: C00198- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15438>      ROUTE RESERVOIR - >      1. 0 02: S- 1- D4S          3. 28      .421  No_date    27: 51    70. 91   n/ a      .000
15439>                         out <=  1. 0 01: S- 1- D4R         3. 14      .039  No_date    28: 25    70. 91   n/ a      .000
15440>                         overf low <=  1. 0 03: S- 1- D4Rovf      .14       .090  No_date    28: 25    70. 91   n/ a      .000
15441>      [ MkSto ls ed=. 3840E+00   m3,  Tot Or f Vol =. 9840E- 02   m3,  N- Or f =      3,  Tot Dur Or f =     1. hrs]
15442> R0100: C00199- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15443>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D5          12. 84     2. 544  No_date    28: 01    70. 58   . 797     .000
15444>      [ XI MP= 65: TI MP= 65]
15445>      [ LOSS= 2 : CN= 75. 0]
15446>      [ Pervious      area:  I Aper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=     .0]
15447>      [ Impervious    area:  I A\ mp=  1. 57: SLPI = . 75: LGI = 293. : MNI = . 013: SCI =     .0]
15448>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15449>      [ SMI N= 33. 81:  SMAX= 225. 43:  SK=  . 010]
15450> R0100: C00200- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15451>      COMPUTE DUALHYD          1. 0 01: S- 1- D5          12. 84     2. 544  No_date    28: 01    70. 58   n/ a      .000
15452>      Major System    /        1. 0 02: S- 1- D5J          .00       .000  No_date    0: 00      .00    n/ a      .000
15453>      Minor System    \        1. 0 03: S- 1- D5N         12. 84     1. 500  No_date    27: 51    70. 80   n/ a      .000
15454>      [ MjSys to=. 5837E+03,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15455> R0100: C00201- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15456>      ADD HYD                  1. 0 02: S- 1- D5J          .00       .000  No_date    0: 00      .00    n/ a      .000
15457>                         +     1. 0 02: S- 1- D5N         12. 84     1. 500  No_date    27: 51    70. 80   n/ a      .000
15458>                         SUM=  1. 0 01: S- 1- D5S         12. 84     1. 500  No_date    27: 51    70. 80   n/ a      .000
15459> R0100: C00202- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15460>      ROUTE RESERVOIR - >      1. 0 02: S- 1- D5S         12. 84     1. 500  No_date    27: 51    70. 80   n/ a      .000
15461>                         out <=  1. 0 01: S- 1- D5R         12. 31     . 154  No_date    28: 29    70. 80   n/ a      .000
15462>                         overf low <=  1. 0 03: S- 1- D5Rovf      .53       .353  No_date    28: 29    70. 80   n/ a      .000
15463>      [ MkSto ls ed=. 5120E+00   m3,  Tot Or f Vol =. 3721E- 01   m3,  N- Or f =      2,  Tot Dur Or f =     1. hrs]
15464> R0100: C00203- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15465>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D6           1. 75      . 382  No_date    28: 00    70. 58   . 797     .000
15466>      [ XI MP= 65: TI MP= 65]
15467>      [ LOSS= 2 : CN= 75. 0]
15468>      [ Pervious      area:  I Aper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=     .0]
15469>      [ Impervious    area:  I A\ mp=  1. 57: SLPI = . 75: LGI = 108. : MNI = . 013: SCI =     .0]
15470>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15471>      [ SMI N= 33. 81:  SMAX= 225. 43:  SK=  . 010]
15472> R0100: C00204- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15473>      COMPUTE DUALHYD          1. 0 01: S- 1- D6           1. 75      . 382  No_date    28: 00    70. 58   n/ a      .000
15474>      Major System    /        1. 0 02: S- 1- D6J          .00       .000  No_date    0: 00      .00    n/ a      .000
15475>      Minor System    \        1. 0 03: S- 1- D6N          1. 75      . 232  No_date    27: 51    70. 75   n/ a      .000
15476>      [ MjSys to=. 7255E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15477> R0100: C00205- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15478>      ADD HYD                  1. 0 02: S- 1- D6J          .00       .000  No_date    0: 00      .00    n/ a      .000
15479>                         +     1. 0 02: S- 1- D6N          1. 75      . 232  No_date    27: 51    70. 75   n/ a      .000
15480>                         SUM=  1. 0 01: S- 1- D6S          1. 75      . 232  No_date    27: 51    70. 75   n/ a      .000
15481> R0100: C00206- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15482>      ROUTE RESERVOIR - >      1. 0 02: S- 1- D6S          1. 75      . 232  No_date    27: 51    70. 75   n/ a      .000
15483>                         out <=  1. 0 01: S- 1- D6R         1. 68      . 021  No_date    28: 25    70. 75   n/ a      .000
15484>                         overf low <=  1. 0 03: S- 1- D6Rovf      .07       .047  No_date    28: 25    70. 75   n/ a      .000
15485>      [ MkSto ls ed=. 6980E- 01   m3,  Tot Or f Vol =. 4972E- 02   m3,  N- Or f =      3,  Tot Dur Or f =     1. hrs]
15486> R0100: C00207- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15487>      CONTI NUOUS STANDHYD     1. 0 01: S- 1- D7           2. 03      . 442  No_date    28: 00    70. 58   . 797     .000
15488>      [ XI MP= 65: TI MP= 65]
15489>      [ LOSS= 2 : CN= 75. 0]
15490>      [ Pervious      area:  I Aper= 4. 67: SLPP= 2. 00: LGP=   40. : MNP= . 250: SCP=     .0]
15491>      [ Impervious    area:  I A\ mp=  1. 57: SLPI = . 75: LGI = 116. : MNI = . 013: SCI =     .0]
15492>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15493>      [ SMI N= 33. 81:  SMAX= 225. 43:  SK=  . 010]
15494> R0100: C00208- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15495>      COMPUTE DUALHYD          1. 0 01: S- 1- D7           2. 03      . 442  No_date    28: 00    70. 58   n/ a      .000
15496>      Major System    /        1. 0 02: S- 1- D7J          .00       .000  No_date    0: 00      .00    n/ a      .000
15497>      Minor System    \        1. 0 03: S- 1- D7N          2. 03      . 265  No_date    27: 51    70. 90   n/ a      .000
15498>      [ MjSys to=. 8643E+02,  Tot Or f Vol =. 0000E+00,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15499> R0100: C00209- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15500>      ADD HYD                  1. 0 02: S- 1- D7J          .00       .000  No_date    0: 00      .00    n/ a      .000
15501>                         +     1. 0 02: S- 1- D7N          2. 03      . 265  No_date    27: 51    70. 90   n/ a      .000
15502>                         SUM=  1. 0 01: S- 1- D7S          2. 03      . 265  No_date    27: 51    70. 90   n/ a      .000
15503> R0100: C00210- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15504>      ROUTE RESERVOIR - >      1. 0 02: S- 1- D7S          2. 03      . 265  No_date    27: 51    70. 90   n/ a      .000
15505>                         out <=  1. 0 01: S- 1- D7R         1. 95      . 024  No_date    28: 25    70. 90   n/ a      .000
15506>                         overf low <=  1. 0 03: S- 1- D7Rovf      .08       .055  No_date    28: 25    70. 90   n/ a      .000
15507>      [ MkSto ls ed=. 8100E- 01   m3,  Tot Or f Vol =. 6001E- 02   m3,  N- Or f =      2,  Tot Dur Or f =     1. hrs]
15508> #    Catchment W_CLAR
15509> #    - To West Clarke Drain (south of the Jock)
15510> #    - Subdivision with 43% imp. as per Barrhaven South MSS
15511> #    - 2020- 11- 30 update CLARKE Tributary Drainage Area to = 121 ha based on P598(04)- 11
15512> #    - 2020- 11- 30 split CLARKE Drainage Area to MAJOR and ALL
15513> #*************************************************************************
15514> R0100: C00211- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15515>      CONTI NUOUS STANDHYD     1. 0 01: W_CLAR_M           1. 77      . 332  No_date    28: 00    66. 20   . 747     .000
15516>      [ XI MP= 46: TI MP= 59]
15517>      [ LOSS= 2 : CN= 77. 0]
15518>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     .0]
15519>      [ Impervious    area:  I A\ mp=  1. 57: SLPI = 1. 00: LGI = 109. : MNI = . 013: SCI =     .0]
15520>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15521>      [ SMI N= 31. 15:  SMAX= 207. 66:  SK=  . 010]
15522> # 5- Year + 12% Capture
15523> R0100: C00212- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15524>      ROUTE RESERVOIR - >      1. 0 02: W_CLAR_M           1. 77      . 332  No_date    28: 00    66. 20   n/ a      .000
15525>                         out <=  1. 0 01: W_CLAR_Mn         1. 69      . 213  No_date    27: 52    66. 22   n/ a      .000
15526>                         overf low <=  1. 0 03: W_CLAR_Mf      .08       .115  No_date    28: 01    66. 20   n/ a      .000
15527>      [ MkSto ls ed=. 1530E- 03   m3,  Tot Or f Vol =. 5337E- 02   m3,  N- Or f =      1,  Tot Dur Or f =     0. hrs]
15528> R0100: C00213- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15529>      CONTI NUOUS STANDHYD     1. 0 01: W_CLAR_ALL       119. 40    19. 638  No_date    28: 04    70. 23   . 793     .000
15530>      [ XI MP= . 60: TI MP= . 65]
15531>      [ LOSS= 2 : CN= 77. 0]
15532>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=     .0]
15533>      [ Impervious    area:  I A\ mp=  1. 57: SLPI = 1. 00: LGI = 892. : MNI = . 013: SCI =     .0]
15534>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15535>      [ SMI N= 31. 15:  SMAX= 207. 66:  SK=  . 010]
15536> R0100: C00214- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15537>      ADD HYD                  1. 0 02: W_CLAR_ALL       119. 40    19. 638  No_date    28: 04    70. 23   n/ a      .000
15538>                         +     1. 0 02: W_CLAR_Mj          .08       .115  No_date    28: 01    66. 20   n/ a      .000
15539>                         SUM=  1. 0 01: W_CLAR           119. 48    19. 657  No_date    28: 04    70. 22   n/ a      .000
15540> R0100: C00215- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15541>      SAVE HYD                 1. 0 01: W_CLAR           119. 48    19. 657  No_date    28: 04    70. 22   n/ a      .000
15542>           fname : W_CLAR 0100
15543>           remark: Total Flows to West Clarke
15544> #*************************************************************************
15545> #    West Clarke Pond 2
15546> #    - Rating curve obtained from Barrhaven South MSS modeling
15547> #    - Tributary Drainage Area to MSS Pond 2 = 241 ha
15548> #*************************************************************************
15549> R0100: C00216- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15550>      ROUTE RESERVOIR - >      1. 0 02: W_CLAR           119. 48    19. 657  No_date    28: 04    70. 22   n/ a      .000
15551>                         out <=  1. 0 01: W_CLAR           119. 48    13. 064  No_date    28: 13    70. 22   n/ a      .000
15552>                         overf low <=  1. 0 03: P2- OVF         .00       .000  No_date    0: 00      .00    n/ a      .000
15553>      [ MkSto ls ed=. 3189E+01   m3,  Tot Or f Vol =. 0000E+00   m3,  N- Or f =      0,  Tot Dur Or f =     0. hrs]
15554> #*************************************************************************
15555> R0100: C00217- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15556>      ADD HYD                  1. 0 02: N_CE           54118. 35  153. 522  No_date    33: 28    39. 09   n/ a      .000
15557>                         +     1. 0 02: S- 1- D4R          3. 14       .039  No_date    28: 25    70. 91   n/ a      .000
15558>                         +     1. 0 02: S- 1- D5R         12. 31      . 154  No_date    28: 29    70. 80   n/ a      .000
15559>                         +     1. 0 02: S- 1- D4Rovf       .14       .090  No_date    28: 25    70. 91   n/ a      .000
15560>                         +     1. 0 02: S- 1- D5Rovf       .53       .353  No_date    28: 29    70. 80   n/ a      .000
15561>                         +     1. 0 02: MS_P2           119. 48    13. 064  No_date    28: 13    70. 22   n/ a      .000
15562>                         +     1. 0 02: P2- OVF            .00       .000  No_date    0: 00      .00    n/ a      .000
15563>                         SUM=  1. 0 01: SN_CE          54253. 95  154. 583  No_date    33: 28    39. 17   n/ a      .000
15564> R0100: C00218- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15565>      SAVE HYD                 1. 0 01: SN_CE          54253. 95  154. 583  No_date    33: 28    39. 17   n/ a      .000
15566>           fname : SN_CE 0100
15567>           remark: Total Flows before Station 5737 on Jock River
15568> # Channel X- Section obtained from RVCA Hydraulic Model - Station 5737
15569> # 2021- 02- 25 add stat ion 5737 before station 5002. Station 5737 was extracted from the HEC- RAS model T:\ PROJ\ 1474- 16\ Des
15570> # JFSA 2021- 03- 02  change the slope to 0. 0175% instead of 0. 02593 to stabilize the model
15571> R0100: C00219- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15572>      ROUTE CHANNEL    - >     1. 0 02: SN_CE          54253. 95  154. 583  No_date    33: 28    39. 17   n/ a      .000
15573> *    [ RDT= 1. 00]  out <-     1. 0 01: S737           54253. 95  144. 603  No_date    35: 50    39. 17   n/ a      .000
15574>      [ L/ S/ n=   270. /  . 018/ . 035]
15575>      [ Vmax=   . 873:  Dmax= 5. 577]
15576> R0100: C00220- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15577>      ADD HYD                  1. 0 02: S737           54253. 95  144. 603  No_date    35: 50    39. 17   n/ a      .000
15578>                         +     1. 0 02: S- 1- D1R         20. 84      . 259  No_date    28: 32    70. 60   n/ a      .000
15579>                         +     1. 0 02: S- 1- D6R          1. 68      . 021  No_date    28: 25    70. 75   n/ a      .000
15580>                         +     1. 0 02: S- 1- D7R          1. 95      . 024  No_date    28: 25    70. 90   n/ a      .000
15581>                         +     1. 0 02: S- 1- D1Rovf        .83       .580  No_date    28: 32    70. 60   n/ a      .000
15582>                         +     1. 0 02: S- 1- D6Rovf        .07       .047  No_date    28: 25    70. 75   n/ a      .000
15583>                         +     1. 0 02: S- 1- D7Rovf        .08       .055  No_date    28: 25    70. 90   n/ a      .000
15584>                         SUM=  1. 0 01: S002           54279. 40  144. 823  No_date    35: 50    39. 19   n/ a      .000
15585> R0100: C00221- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15586>      SAVE HYD                 1. 0 01: S002           54279. 40  144. 823  No_date    35: 50    39. 19   n/ a      .000
15587>           fname : S002 0100
15588>           remark: Total Flows before Station S002 on Jock River
15589> # Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain
15590> # Channel X- Section obtained from RVCA Hydraulic Model - Station S002
15591> # JFSA 2021- 02- 19 Change the slope from 0. 01 % (as per Stantec Report 2007) to 0. 0255 % so the model will be more stable
15592> # JFSA 2021- 02- 19 Change to three ROUTE CHANNEL with length 275 m each instead of one with 825 m length so the model wil
15593> # JFSA 2021- 02- 26  change the length of S002 rout e channel from 825 m to 736 m. That is because of adding stat ion 5737 be
15594> R0100: C00222- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15595>      ROUTE CHANNEL    - >     1. 0 02: S002           54279. 40  144. 823  No_date    35: 50    39. 19   n/ a      .000
15596> *    [ RDT= 1. 00]  out <-     1. 0 01: N_WCa          54279. 40  144. 811  No_date    35: 54    39. 19   n/ a      .000
15597>      [ L/ S/ n=   245. /  . 095/ . 035]
15598>      [ Vmax=  1. 319:  Dmax=  3. 149]
15599> R0100: C00223- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15600>      ROUTE CHANNEL    - >     1. 0 02: N_WCa          54279. 40  144. 811  No_date    35: 54    39. 19   n/ a      .000
15601> *    [ RDT= 1. 00]  out <-     1. 0 01: N_WCb          54279. 40  144. 784  No_date    36: 02    39. 19   n/ a      .000
15602>      [ L/ S/ n=   245. /  . 095/ . 035]
15603>      [ Vmax=  1. 319:  Dmax=  3. 149]
15604> R0100: C00224- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15605>      ROUTE CHANNEL    - >     1. 0 02: N_WCb          54279. 40  144. 784  No_date    36: 02    39. 19   n/ a      .000
15606> *    [ RDT= 1. 00]  out <-     1. 0 01: N_WC           54279. 40  144. 566  No_date    36: 23    39. 19   n/ a      .000
15607>      [ L/ S/ n=   245. /  . 095/ . 035]
15608>      [ Vmax=  1. 319:  Dmax=  3. 149]
15609> #*************************************************************************
15610> # Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain
15611> # Channel X- Section obtained from RVCA Hydraulic Model - Station 4534
15612> #
15613> R0100: C00225- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15614>      ROUTE CHANNEL    - >     1. 0 02: N_WC           54279. 40  144. 566  No_date    36: 23    39. 19   n/ a      .000
15615> *    [ RDT= 1. 00]  out <-     1. 0 01: N_KB           54279. 40  144. 071  No_date    36: 49    39. 18   n/ a      .000
15616>      [ L/ S/ n=  1020. /  . 050/ . 035]
15617>      [ Vmax=  1. 004:  Dmax=  3. 867]
15618> #*************************************************************************
15619> #    Catchment KEN_BU
15620> #    - To Kennedy- Burnett SWM Facility
15621> #    - Outlets to Fraser- Clarke drain (north of the Jock)
15622> #    - Medium density residential subdivision
15623> #*************************************************************************
15624> #*************************************************************************
15625> #    Existing Kennedy- Burnett SWM Facility
15626> #    - Rating curve obtained from URTRHP
15627> #    - Tributary Drainage Area to Pond = 160 ha
15628> #*************************************************************************
15629> R0100: C00226- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15630>      CONTI NUOUS STANDHYD     1. 0 01: KB- 01A           40. 82     5. 490  No_date    28: 09    36. 71   . 415     .000
15631>      [ XI MP= . 10: TI MP= . 40]
15632>      [ Horton parameters:  Fo= 76. 20:  Fc=  13. 20:  DCAY= 4. 14:    F=  . 00]
15633>      [ Pervious      area:  I Aper= 4. 67: SLPP= . 50: LGP=   40. : MNP= . 250: SCP=     .0]
15634>      [ Impervious    area:  I A\ mp=  . 79: SLPI = . 50: LGI = 522. : MNI = . 013: SCI =     .0]
15635>      [ IaREC mp=     4. 00:  I aREC per=     4. 00]
15636> R0100: C00227- ---------- DTmin- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Date_ hh: mm- - - - RVmm R. C. - - - DWF cms
15637>      COMPUTE DUALHYD          1. 0 01: KB- 01A           40. 82     5. 490  No_date    28: 09    36. 71   n/ a      .000
15638>      Major System    /        1. 0 02: KB- 01A- M          .00       .000  No_date    0: 00      .00    n/ a      .000
15639>      Minor System    \        1. 0 03: KB- 01A- MN        40. 82     3. 600  No_date    28: 44    36. 91   n/
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15709> R0100: C00241-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15710>     CONTINUOUS STANDHYD      1.0 01: KB-05          5.19     1.406 No_date   28:00   82.69 .934      .000
15711>          [ XI M%=. 93: TI M%=. 93]
15712>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15713>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15714>          [ Impervious    area: I Aimp=  1. 57: SLPI=  . 50: LGI= 186. : MNI=. 013: SCI=    .0]
15715>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15716> R0100: C00242-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15717>     CONTINUOUS STANDHYD      1.0 01: KB-06         12.93     3.585 No_date   28:00   79.73 .900      .000
15718>          [ XI M%=. 87: TI M%=. 87]
15719>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15720>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15721>          [ Impervious    area: I Aimp=  . 94: SLPI=4. 75: LGI= 294. : MNI=. 013: SCI=    .0]
15722>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15723> R0100: C00243-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15724>     COMPUTE DUALHYD          1.0 01: KB-06          12.93     3.585 No_date   28:00   79.73 n/a       .000
15725>       Major System   /      1.0 02: KB-06-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15726>       Minor System   \      1.0 03: KB-06-MN       12.93     2.262 No_date   27:51   79.89 n/a       .000
15727>       [ MJ Sys To=. 6247E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15728> R0100: C00244-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15729>     ADD HYD                  1.0 02: KB-06-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15730>                         +    1.0 02: KB-06-MN       12.93     2.262 No_date   27:51   79.89 n/a       .000
15731>                         SUM: 1.0 01: KB-06-S        12.93     2.262 No_date   27:51   79.89 n/a       .000
15732> R0100: C00245-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15733>     CONTINUOUS STANDHYD      1.0 01: KB-11           4.03     1.012 No_date   28:00   67.54 .763      .000
15734>          [ XI M%=. 68: TI M%=. 68]
15735>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15736>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15737>          [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 164. : MNI=. 013: SCI=    .0]
15738>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15739> R0100: C00246-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15740>     COMPUTE DUALHYD          1.0 01: KB-11           4.03     1.012 No_date   28:00   67.54 n/a       .000
15741>       Major System   /      1.0 02: KB-11-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15742>       Minor System   \      1.0 03: KB-11-MN        4.03      .577 No_date   27:51   67.60 n/a       .000
15743>       [ MJ Sys To=. 2184E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15744> R0100: C00247-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15745>     ADD HYD                  1.0 02: KB-11-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15746>                         +    1.0 02: KB-11-MN        4.03      .577 No_date   27:51   67.60 n/a       .000
15747>                         SUM: 1.0 01: KB-11-S         4.03      .577 No_date   27:51   67.60 n/a       .000
15748> R0100: C00248-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15749>     CONTINUOUS STANDHYD      1.0 01: SI              4.99     1.426 No_date   28:00   82.69 .934      .000
15750>          [ XI M%=. 93: TI M%=. 93]
15751>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15752>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15753>          [ Impervious    area: I Aimp=  1. 57: SLPI=2. 00: LGI= 182. : MNI=. 013: SCI=    .0]
15754>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15755> R0100: C00249-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15756>     CONTINUOUS STANDHYD      1.0 01: KB-15           2.15      .548 No_date   28:00   75.20 .849      .000
15757>          [ XI M%=. 79: TI M%=. 79]
15758>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15759>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15760>          [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 120. : MNI=. 013: SCI=    .0]
15761>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15762> R0100: C00250-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15763>     ADD HYD                  1.0 02: KB-01A-S        40.82     3.600 No_date   28:44   36.91 n/a       .000
15764>                         +    1.0 02: KB-01B-S        31.10     1.585 No_date   27:51   40.77 n/a       .000
15765>                         +    1.0 02: KB-01C-S        13.78     1.350 No_date   28:37   42.09 n/a       .000
15766>                         +    1.0 02: KB-03-S         84.78     5.270 No_date   29:11   41.33 n/a       .000
15767>                         +    1.0 02: KB-04-S          6.95      .503 No_date   27:43   78.64 n/a       .000
15768>                         +    1.0 02: KB-05-S          5.19     1.406 No_date   28:00   82.69 n/a       .000
15769>                         +    1.0 02: KB-06-S         12.93     2.262 No_date   27:51   79.89 n/a       .000
15770>                         +    1.0 02: KB-11-S          4.03      .577 No_date   27:51   67.60 n/a       .000
15771>                         +    1.0 02: KB-15-S          2.15      .548 No_date   28:00   75.20 n/a       .000
15772>                         +    1.0 02: SI               4.99     1.426 No_date   28:00   82.69 n/a       .000
15773>                         SUM: 1.0 01: KB-P1           206.72   18.527 No_date   28:00   46.99 n/a       .000
15774> R0100: C00251-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15775>     ROUTE RESERVOIR -->      1.0 02: KB-P1           206.72   18.527 No_date   28:00   46.99 n/a       .000
15776>                         out <=   1.0 01: KB-P1R      196.58   12.438 No_date   28:00   46.99 n/a       .000
15777>                         overflow <=  1.0 03: KB-P1ovf  10.14    6.062 No_date   28:00   46.99 n/a       .000
15778>       [ Ms Stor Used=. 7330E+00   m3,  Tot Or Vol=. 4763E+00   m3,  N-Or f=    2,  Tot Dur Or f=    1. hrs]
15779> R0100: C00252-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15780>     ADD HYD                  1.0 02: KB-P1R          196.58   12.438 No_date   28:00   46.99 n/a       .000
15781>                         +    1.0 02: KB-P1ovf        10.14    6.062 No_date   28:00   46.99 n/a       .000
15782>                         SUM: 1.0 01: KB-Pond1        206.72   18.500 No_date   28:00   46.99 n/a       .000
15783> R0100: C00253-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15784>     SAVE HYD                 1.0 01: KB-Pond1        206.72   18.500 No_date   28:00   46.99 n/a       .000
15785>          fname: KB-Pond1. 0100
15786>          remark: Total Flows at KB first pond
15787> R0100: C00254-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15788>     CONTINUOUS STANDHYD      1.0 01: KB-07           10.86     2.908 No_date   28:00   79.06 .893      .000
15789>          [ XI M%=. 86: TI M%=. 86]
15790>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15791>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15792>          [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 269. : MNI=. 013: SCI=    .0]
15793>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15794> R0100: C00255-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15795>     COMPUTE DUALHYD          1.0 01: KB-07           10.86     2.908 No_date   28:00   79.06 n/a       .000
15796>       Major System   /      1.0 02: KB-07-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15797>       Minor System   \      1.0 03: KB-07-MN        10.86     2.094 No_date   27:53   79.26 n/a       .000
15798>       [ MJ Sys To=. 3334E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15799> R0100: C00256-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15800>     ADD HYD                  1.0 02: KB-07-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15801>                         +    1.0 02: KB-07-MN        10.86     2.094 No_date   27:53   79.26 n/a       .000
15802>                         SUM: 1.0 01: KB-07-S         10.86     2.094 No_date   27:53   79.26 n/a       .000
15803> R0100: C00257-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15804>     CONTINUOUS STANDHYD      1.0 01: KB-08           6.61     1.609 No_date   28:00   65.36 .738      .000
15805>          [ XI M%=. 64: TI M%=. 64]
15806>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15807>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15808>          [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 210. : MNI=. 013: SCI=    .0]
15809>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15810> R0100: C00258-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15811>     COMPUTE DUALHYD          1.0 01: KB-08           6.61     1.609 No_date   28:00   65.36 n/a       .000
15812>       Major System   /      1.0 02: KB-08-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15813>       Minor System   \      1.0 03: KB-08-MN        6.61     1.058 No_date   27:52   65.50 n/a       .000
15814>       [ MJ Sys To=. 2397E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15815> R0100: C00259-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15816>     ADD HYD                  1.0 02: KB-08-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15817>                         +    1.0 02: KB-08-MN        6.61     1.058 No_date   27:52   65.50 n/a       .000
15818>                         SUM: 1.0 01: KB-08-S         6.61     1.058 No_date   27:52   65.50 n/a       .000
15819> R0100: C00260-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15820>     CONTINUOUS STANDHYD      1.0 01: KB-09           2.60      .727 No_date   28:00   78.38 .885      .000
15821>          [ XI M%=. 86: TI M%=. 86]
15822>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15823>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15824>          [ Impervious    area: I Aimp=  1. 57: SLPI=2. 00: LGI= 132. : MNI=. 013: SCI=    .0]
15825>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15826> R0100: C00261-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15827>     CONTINUOUS STANDHYD      1.0 01: KB-10_1         2.37      .663 No_date   28:00   78.39 .885      .000
15828>          [ XI M%=. 86: TI M%=. 86]
15829>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15830>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15831>          [ Impervious    area: I Aimp=  1. 57: SLPI=2. 00: LGI= 126. : MNI=. 013: SCI=    .0]
15832>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15833> R0100: C00262-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15834>     CONTINUOUS STANDHYD      1.0 01: KB-10_2         1.14      .322 No_date   28:00   78.39 .885      .000
15835>          [ XI M%=. 86: TI M%=. 86]
15836>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15837>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15838>          [ Impervious    area: I Aimp=  1. 57: SLPI=2. 00: LGI=   87. : MNI=. 013: SCI=    .0]
15839>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15840> R0100: C00263-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15841>     CONTINUOUS STANDHYD      1.0 01: KB-12           4.86     1.294 No_date   28:00   74.45 .841      .000
15842>          [ XI M%=. 79: TI M%=. 79]
15843>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15844>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15845>          [ Impervious    area: I Aimp=  1. 10: SLPI=2. 00: LGI= 180. : MNI=. 013: SCI=    .0]
15846>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15847> R0100: C00264-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15848>     COMPUTE DUALHYD          1.0 01: KB-12           4.86     1.294 No_date   28:00   74.45 n/a       .000
15849>       Major System   /      1.0 02: KB-12-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15850>       Minor System   \      1.0 03: KB-12-MN        4.86      .867 No_date   28:11   74.79 n/a       .000
15851>       [ MJ Sys To=. 1873E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15852> R0100: C00265-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15853>     ADD HYD                  1.0 02: KB-12-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15854>                         +    1.0 02: KB-12-MN        4.86      .867 No_date   28:11   74.79 n/a       .000
15855>                         SUM: 1.0 01: KB-12-S         4.86      .867 No_date   28:11   74.79 n/a       .000
15856> R0100: C00266-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15857>     CONTINUOUS STANDHYD      1.0 01: KB-13           10.19     2.407 No_date   28:00   65.36 .738      .000
15858>          [ XI M%=. 64: TI M%=. 64]
15859>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15860>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15861>          [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 261. : MNI=. 013: SCI=    .0]
15862>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15863> R0100: C00267-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15864>     COMPUTE DUALHYD          1.0 01: KB-13           10.19     2.407 No_date   28:00   65.36 n/a       .000
15865>       Major System   /      1.0 02: KB-13-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15866>       Minor System   \      1.0 03: KB-13-MN        10.19     1.722 No_date   27:54   65.63 n/a       .000
15867>       [ MJ Sys To=. 2806E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15868> R0100: C00268-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15869>     ADD HYD                  1.0 02: KB-13-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15870>                         +    1.0 02: KB-13-MN        10.19     1.722 No_date   27:54   65.63 n/a       .000
15871>                         SUM: 1.0 01: KB-13-S         10.19     1.722 No_date   27:54   65.63 n/a       .000
15872> R0100: C00269-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15873>     CONTINUOUS STANDHYD      1.0 01: KB-14           5.47     1.338 No_date   28:00   65.36 .738      .000
15874>          [ XI M%=. 64: TI M%=. 64]
15875>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15876>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15877>          [ Impervious    area: I Aimp=  . 79: SLPI=2. 00: LGI= 191. : MNI=. 013: SCI=    .0]
15878>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15879> R0100: C00270-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15880>     COMPUTE DUALHYD          1.0 01: KB-14           5.47     1.338 No_date   28:00   65.36 n/a       .000
15881>       Major System   /      1.0 02: KB-14-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15882>       Minor System   \      1.0 03: KB-14-MN        5.47      .873 No_date   27:52   65.48 n/a       .000
15883>       [ MJ Sys To=. 2041E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15884> R0100: C00271-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15885>     ADD HYD                  1.0 02: KB-14-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15886>                         +    1.0 02: KB-14-MN        5.47      .873 No_date   27:52   65.48 n/a       .000
15887>                         SUM: 1.0 01: KB-14-S         5.47      .873 No_date   27:52   65.48 n/a       .000
15888> R0100: C00272-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15889>     CONTINUOUS STANDHYD      1.0 01: KB-16_2         3.42      .803 No_date   28:01   70.16 .792      .000
15890>          [ XI M%=. 71: TI M%=. 71]
15891>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15892>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15893>          [ Impervious    area: I Aimp=  . 16: SLPI=  . 30: LGI= 151. : MNI=. 013: SCI=    .0]
15894>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15895> R0100: C00273-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms

15896>     ADD HYD                  1.0 02: KB-Pond1        206.72   18.500 No_date   28:00   46.99 n/a       .000
15897>                         +    1.0 02: KB-07-S         10.86     2.094 No_date   27:53   79.26 n/a       .000
15898>                         +    1.0 02: KB-08-S          6.61     1.058 No_date   27:52   65.50 n/a       .000
15899>                         +    1.0 02: KB-09            2.60      .727 No_date   28:00   78.38 n/a       .000
15900>                         +    1.0 02: KB-10_1          2.37      .663 No_date   28:00   78.38 n/a       .000
15901>                         +    1.0 02: KB-10_2          1.14      .322 No_date   28:00   78.39 n/a       .000
15902>                         +    1.0 02: KB-12-S          4.86      .867 No_date   28:11   74.79 n/a       .000
15903>                         +    1.0 02: KB-13-S         10.19     1.722 No_date   27:54   65.63 n/a       .000
15904>                         +    1.0 02: KB-14-S          5.47      .873 No_date   27:52   65.48 n/a       .000
15905>                         +    1.0 02: KB-16_2          3.42      .803 No_date   28:01   70.16 n/a       .000
15906>                         SUM: 1.0 01: KB-P2           254.24   27.626 No_date   28:00   51.59 n/a       .000
15907> R0100: C00274-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15908>     ROUTE RESERVOIR -->      1.0 02: KB-P2           254.24   27.626 No_date   28:00   51.59 n/a       .000
15909>                         out <=   1.0 01: KB-P2R      249.74   17.634 No_date   28:06   51.59 n/a       .000
15910>                         overflow <=  1.0 03: KB-P2ovf   4.50    6.910 No_date   28:06   51.59 n/a       .000
15911>       { Ms Stor Used=. 1110E+01   m3,  Tot Or Vol=. 2320E+00   m3,  N-Or f=    2,  Tot Dur Or f=    0. hrs}
15912> R0100: C00275-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15913>     ADD HYD                  1.0 02: KB-P2R          249.74   17.634 No_date   28:06   51.59 n/a       .000
15914>                         +    1.0 02: KB-P2ovf        4.50     6.910 No_date   28:06   51.59 n/a       .000
15915>                         SUM: 1.0 01: KB-Pond2        254.24   24.544 No_date   28:06   51.59 n/a       .000
15916> R0100: C00276-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15917>     SAVE HYD                 1.0 01: KB-Pond2        254.24   24.544 No_date   28:06   51.59 n/a       .000
15918>          fname: KB-Pond2. 0100
15919>          remark: Total Flows at KB second pond
15920> R0100: C00277-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15921>     CONTINUOUS STANDHYD      1.0 01: KB-16_1          2.80      .686 No_date   28:00   72.68 .821      .000
15922>          [ XI M%=. 75: TI M%=. 75]
15923>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15924>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15925>          [ Impervious    area: I Aimp=  1. 57: SLPI=  . 30: LGI= 137. : MNI=. 013: SCI=    .0]
15926>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15927> R0100: C00278-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15928>     ADD HYD                  1.0 02: KB-Pond2        254.24   24.544 No_date   28:06   51.59 n/a       .000
15929>                         +    1.0 02: KB-16_1          2.80      .686 No_date   28:00   72.68 n/a       .000
15930>                         SUM: 1.0 01: KB-P3           257.04   24.930 No_date   28:06   51.82 n/a       .000
15931> R0100: C00279-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15932>     ROUTE RESERVOIR -->      1.0 02: KB-P3           257.04   24.930 No_date   28:06   51.82 n/a       .000
15933>                         out <=   1.0 01: KB-P3R      8.56      .051 No_date   17:08   51.81 n/a       .000
15934>                         overflow <=  1.0 03: KB-P3ovf  248.48   24.659 No_date   28:07   51.82 n/a       .000
15935>       { Ms Stor Used=. 1991E-02   m3,  Tot Or Vol=. 1288E+02   m3,  N-Or f=    1,  Tot Dur Or f=   23. hrs}
15936> R0100: C00280-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15937>     ADD HYD                  1.0 02: KB-P3R            8.56      .051 No_date   17:08   51.81 n/a       .000
15938>                         +    1.0 02: KB-P3ovf        248.48   24.659 No_date   28:07   51.82 n/a       .000
15939>                         SUM: 1.0 01: KB-Pond3        257.04   24.710 No_date   28:07   51.82 n/a       .000
15940> R0100: C00281-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15941>     SAVE HYD                 1.0 01: KB-Pond3        257.04   24.710 No_date   28:07   51.82 n/a       .000
15942>          fname: KB-Pond3. 0100
15943>          remark: Total Flows at KB third pond
15944> ********************************************************************************
15945> #     EXISTING / PROPOSED Subcatchments (Kennedy-Burnett SWM Facility (118080), SWMModeling Approach, NOVATECH Report Ju
15946> #     - TO FRASER-CLARKE DRAIN
15947> ********************************************************************************
15948> R0100: C00282-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15949>     CONTINUOUS STANDHYD      1.0 01: FC-01           8.03     1.646 No_date   28:01   54.40 .614      .000
15950>          [ XI M%=. 47: TI M%=. 47]
15951>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15952>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15953>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  231. : MNI=. 013: SCI=    .0]
15954>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15955> R0100: C00283-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15956>     COMPUTE DUALHYD          1.0 01: FC-01           8.03     1.646 No_date   28:01   54.40 n/a       .000
15957>       Major System   /      1.0 02: FC-01-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15958>       Minor System   \      1.0 03: FC-01-MN        8.03      .756 No_date   27:49   54.46 n/a       .000
15959>       [ MJ Sys To=. 6274E+03,  Tot Or Vol=. 0000E+00,  N-Or f=    0,  Tot Dur Or f=    0. hrs]
15960> R0100: C00284-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15961>     ADD HYD                  1.0 02: FC-01-MJ        .00      .000 No_date    0:00     .00 n/a       .000
15962>                         +    1.0 02: FC-01-MN        8.03      .756 No_date   27:49   54.46 n/a       .000
15963>                         SUM: 1.0 01: FC-01-S         8.03      .756 No_date   27:49   54.46 n/a       .000
15964> R0100: C00285-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15965>     CONTINUOUS STANDHYD      1.0 01: FC-02           16.05     4.197 No_date   28:00   82.69 .934      .000
15966>          [ XI M%=. 93: TI M%=. 93]
15967>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15968>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15969>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  327. : MNI=. 013: SCI=    .0]
15970>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15971> R0100: C00286-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15972>     COMPUTE DUALHYD          1.0 01: FC-02           16.05     4.197 No_date   28:00   82.69 n/a       .000
15973>       Major System   /      1.0 02: FC-02-MJ         .45     1.768 No_date   28:05   82.69 n/a       .000
15974>       Minor System   \      1.0 03: FC-02-MN        15.60     1.159 No_date   27:43   82.88 n/a       .000
15975>       [ MJ Sys To=. 2385E+04,  Tot Or Vol=. 3716E+03,  N-Or f=    1,  Tot Dur Or f=    0. hrs]
15976> R0100: C00287-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15977>     ADD HYD                  1.0 02: FC-02-MJ         .45     1.768 No_date   28:05   82.69 n/a       .000
15978>                         +    1.0 02: FC-02-MN        15.60     1.159 No_date   27:43   82.88 n/a       .000
15979>                         SUM: 1.0 01: FC-02-S         16.05     2.927 No_date   28:05   82.87 n/a       .000
15980> R0100: C00288-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15981>     CONTINUOUS STANDHYD      1.0 01: FC-03            7.37     1.717 No_date   28:00   64.86 .732      .000
15982>          [ XI M%=. 64: TI M%=. 64]
15983>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
15984>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
15985>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  222. : MNI=. 013: SCI=    .0]
15986>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
15987> R0100: C00289-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15988>     COMPUTE DUALHYD          1.0 01: FC-03            7.37     1.717 No_date   28:00   64.86 n/a       .000
15989>       Major System   /      1.0 02: FC-03-MJ         .34      .661 No_date   28:06   64.86 n/a       .000
15990>       Minor System   \      1.0 03: FC-03-MN         7.03      .358 No_date   27:41   64.90 n/a       .000
15991>       [ MJ Sys To=. 1131E+04,  Tot Or Vol=. 2188E+03,  N-Or f=    1,  Tot Dur Or f=    0. hrs]
15992> R0100: C00290-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15993>     ADD HYD                  1.0 02: FC-03-MJ         .34      .661 No_date   28:06   64.86 n/a       .000
15994>                         +    1.0 02: FC-03-MN         7.03      .358 No_date   27:41   64.90 n/a       .000
15995>                         SUM: 1.0 01: FC-03-S          7.37     1.019 No_date   28:06   64.90 n/a       .000
15996> R0100: C00291-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
15997>     CONTINUOUS STANDHYD      1.0 01: FC-04           12.87     2.884 No_date   28:01   64.86 .732      .000
15998>          [ XI M%=. 64: TI M%=. 64]
15999>          [ Horton parameters: Fo= 76. 20: Fc= 13. 20: DCAY=4. 14:   Fe= .00]
16000>          [ Pervious      area: I Aper= 4. 67: SLPP=2. 00: LGP=  40. : MNP=. 250: SCP=    .0]
16001>          [ Impervious    area: I Aimp=  1. 57: SLPI=1. 00: LGI=  293. : MNI=. 013: SCI=    .0]
16002>          [ Ia REC mp=  4. 00: Ia REC per=   4. 00]
16003> R0100: C00292-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
16004>     COMPUTE DUALHYD          1.0 01: FC-04           12.87     2.884 No_date   28:01   64.86 n/a       .000
16005>       Major System   /      1.0 02: FC-04-MJ         .44      .978 No_date   28:07   64.86 n/a       .000
16006>       Minor System   \      1.0 03: FC-04-MN        12.43      .741 No_date   27:43   65.10 n/a       .000
16007>       [ MJ Sys To=. 1794E+04,  Tot Or Vol=. 2828E+03,  N-Or f=    1,  Tot Dur Or f=    0. hrs]
16008> R0100: C00293-------------DTmin-1 D: NHYD---------AREA ha- QPEAK cms- Tpeak Date_hh: mm----RVmm R. C.----DWF cms
16009>     ADD HYD                  1.0 02: FC-04-MJ         .44      .978 No_date   28:07   64.86 n/a       .000
16010>                         +    1.0 02: FC-04-MN        
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16083>                  +      1.0 02: FC-01-S          8.03       .756 No_date   27:49   54.46  n/a    .000
16084>                  +      1.0 02: FC-02-S         16.05     2.927 No_date   28:05   82.87  n/a    .000
16085>                  +      1.0 02: FC-03-S          7.37     1.019 No_date   28:06   64.90  n/a    .000
16086>                SUM=     1.0 01: 4241         54658.51  144.701 No_date   36:48   39.28  n/a    .000
16087> R0100: CO0305-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16088>      SAVE HYD             1.0 01: 4241         54658.51  144.701 No_date   36:48   39.28  n/a    .000
16089>        fname : 4241.0100
16090>        remark: Total Flows at Ken-Burnett Outlet
16091> # Hydrograph from Node Ken-Burnett to station 3633
16092> # Channel X-Section obtained from RVCA Hydraulic Model - Station 4241
16093> #
16094> R0100: CO0306-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16095>      ROUTE CHANNEL    ->     1.0 02: 4241         54658.51  144.701 No_date   36:48   39.28  n/a    .000
16096> *    [RDT= 1.00] out <-     1.0 01: 4241-out     54658.51  144.744 No_date   36:44   39.28  n/a    .000
16097>        [L/S/m=  294./  109/ 035]
16098>        [Vmx= 1.396: Dmx= 2.598]
16099> R0100: CO0307-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16100>      ADD HYD              1.0 02: 4241-out     54658.51  144.744 No_date   36:44   39.28  n/a    .000
16101>                  +      1.0 02: FC-04-S         12.87     1.719 No_date   28:07   65.09  n/a    .000
16102>                  +      1.0 02: JR-01-S          8.24     1.034 No_date   28:06   64.95  n/a    .000
16103>                  +      1.0 02: JR-02-S          1.59       .240 No_date   28:03   65.23  n/a    .000
16104>                SUM=     1.0 01: SN_KB        54681.20  144.787 No_date   36:44   39.29  n/a    .000
16105> R0100: CO0308-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16106>      SAVE HYD             1.0 01: SN_KB        54681.20  144.787 No_date   36:44   39.29  n/a    .000
16107>        fname : SN_KB.0100
16108>        remark: Total Flows before Station 3633
16109> # Hydrograph from Station 3633 to Node Todd
16110> # Channel X-Section obtained from RVCA Hydraulic Model - Station 3633
16111> # JFSA 2021-02-26 change the channel length (at station 3633) from 650m to 608m and change the slope from 0.0498% to 0.2
16112> #
16113> R0100: CO0309-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16114>      ROUTE CHANNEL    ->     1.0 02: SN_KB        54681.20  144.787 No_date   36:44   39.29  n/a    .000
16115>        [RDT= 1.00] out <-     1.0 01: N_TO         54681.20  144.732 No_date   36:50   39.29  n/a    .000
16116>        [L/S/m=  608./  247/ 035]
16117>        [Vmx= 1.906: Dmx= 1.945]
16118> #*******************************************************************************
16119> #    Catchment Greenbank
16120> #    - To Greenbank Drain (south of the Jock)
16121> #    - JFSA 2021-01-19 add Greenbank pond as per JFSA_P598(06)-15, June 2016
16122> #    - JFSA 2021-01-19 update area from 37.479 ha to 36.6 ha based on GIS measurements
16123> #*******************************************************************************
16124> R0100: CO0310-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16125>      CONTINUOUS STANDHYD  1.0 01: Greenbank      36.60     7.069 No_date   28:01   71.80  n/a    .000
16126>        [XI/M=s. 64: TI/MP=. 68]
16127>        [LOSS= 2 : CN= 77.0]
16128>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16129>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 494. : MNI=. 013: SCI=   .0]
16130>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16131>        [SMN= 31. 15:  SMX/=207. 66:  SK=  .010]
16132> R0100: CO0311-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16133>      ROUTE RESERVOIR ->     1.0 02: Greenbank       36.60     7.069 No_date   28:01   71.80  n/a    .000
16134>                 out <=     1.0 01: GreenB_MN       36.60     5.350 No_date   28:07   71.80  n/a    .000
16135>             overflow <=    1.0 03: GreenB_MI         .00       .000 No_date   0:00     .00  n/a    .000
16136>        [MxSt orage=. 9351E+00  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
16137> R0100: CO0312-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16138>      ADD HYD              1.0 02: N_TO         54681.20  144.732 No_date   36:50   39.29  n/a    .000
16139>                  +      1.0 02: GreenB_MI         .00       .000 No_date   0:00     .00  n/a    .000
16140>                  +      1.0 02: GreenB_MN       36.60     5.350 No_date   28:07   71.80  n/a    .000
16141>                SUM=     1.0 01: GreenB       54717.80  144.894 No_date   36:50   39.32  n/a    .000
16142> R0100: CO0313-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16143>      SAVE HYD             1.0 01: GreenB       54717.80  144.894 No_date   36:50   39.32  n/a    .000
16144>        fname : GreenB.0100
16145>        remark: Total Flows at Greenbank Drain
16146> #*******************************************************************************
16147> #    Catchment TODD
16148> #    - To Todd Drain (south of the Jock)
16149> #    - Subdivision with 43% imp. as per Barrhaven South MSS
16150> #    - 2020-11-30 increase imp. based on P598(04)-11
16151> #    - 2020-11-30 update TODD Tributary Drainage Area to  = 146.015 ha based on P598(04)-11
16152> #    - 2020-11-30 split TODD Drainage Area to MAJOR, MINOR, POND and ALL
16153> #*******************************************************************************
16154> #    - JFSA 2021-01-19 add "TODD_MN1" as part of Clarke("W_CLAR_M") and remove it from Todd
16155> R0100: CO0314-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16156>      CONTINUOUS STANDHYD  1.0 01: TODD_MN2        2.10       .428 No_date   28:00   66.78  .754    .000
16157>        [XI/M=s. 53: TI/MP=. 57]
16158>        [LOSS= 2 : CN= 77.0]
16159>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16160>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 118. : MNI=. 013: SCI=   .0]
16161>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16162>        [SMN= 31. 15:  SMX/=207. 66:  SK=  .010]
16163> R0100: CO0315-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16164>      CONTINUOUS STANDHYD  1.0 01: TODD_MN3         .12       .025 No_date   28:00   66.78  .754    .000
16165>        [XI/M=s. 53: TI/MP=. 57]
16166>        [LOSS= 2 : CN= 77.0]
16167>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16168>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI=  28. : MNI=. 013: SCI=   .0]
16169>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16170>        [SMN= 31. 15:  SMX/=207. 66:  SK=  .010]
16171> R0100: CO0316-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16172>      CONTINUOUS STANDHYD  1.0 01: TODD_MI         30.23     5.210 No_date   28:02   68.65  .775    .000
16173>        [XI/M=s. 52: TI/MP=. 64]
16174>        [LOSS= 2 : CN= 77.0]
16175>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16176>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 449. : MNI=. 013: SCI=   .0]
16177>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16178>        [SMN= 31. 15:  SMX/=207. 66:  SK=  .010]
16179> R0100: CO0317-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16180>      CONTINUOUS STANDHYD  1.0 01: TODD_ALL       112.91    17.286 No_date   28:04   66.60  .752    .000
16181>        [XI/M=s. 52: TI/MP=. 57]
16182>        [LOSS= 2 : CN= 77.0]
16183>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16184>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 868. : MNI=. 013: SCI=   .0]
16185>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16186>        [SMN= 31. 15:  SMX/=207. 66:  SK=  .010]
16187> R0100: CO0318-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16188>      CONTINUOUS STANDHYD  1.0 01: TODD_P           3.06       .669 No_date   28:00   70.28  .794    .000
16189>        [XI/M=s. 63: TI/MP=. 63]
16190>        [LOSS= 2 : CN= 77.0]
16191>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16192>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 143. : MNI=. 013: SCI=   .0]
16193>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16194>        [SMN= 31. 15:  SMX/=207. 66:  SK=  .010]
16195> # 5-Year + 12% Capture
16196> R0100: CO0319-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16197>      ROUTE RESERVOIR ->     1.0 02: TODD_MI         30.23     5.210 No_date   28:02   68.65  n/a    .000
16198>                 out <=     1.0 01: TODD_MN         28.64     5.314 No_date   27:54   68.65  n/a    .000
16199>             overflow <=    1.0 03: TODD_MJ          1.59     1.889 No_date   28:02   68.65  n/a    .000
16200>        [MxSt orage=. 1512E-03  m3,  Tot Ovf Vol =. 1094E+00  m3,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
16201> # 5-Year + 12% Capture
16202> R0100: CO0320-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16203>      ROUTE RESERVOIR ->     1.0 02: TODD_MN2        2.10       .428 No_date   28:00   66.78  n/a    .000
16204>                 out <=     1.0 01: TODD_MN2n       1.99       .268 No_date   27:52   66.78  n/a    .000
16205>             overflow <=    1.0 03: TODD_MN2j         .11       .155 No_date   28:00   66.78  n/a    .000
16206>        [MxSt orage=. 1204E-03  m3,  Tot Ovf Vol =. 7282E-02  m3,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
16207> R0100: CO0321-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16208>      ROUTE RESERVOIR ->     1.0 02: TODD_MN3         .12       .025 No_date   28:00   66.78  n/a    .000
16209>                 out <=     1.0 01: TODD_MN3n        .11       .016 No_date   27:52   66.78  n/a    .000
16210>             overflow <=    1.0 03: TODD_MN3j        .01       .009 No_date   28:00   66.78  n/a    .000
16211>        [MxSt orage=. 9808E-04  m3,  Tot Ovf Vol =. 3933E-03  m3,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
16212> R0100: CO0322-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16213>      CONTINUOUS STANDHYD  1.0 01: A2              25.50     3.884 No_date   28:03   62.46  .705    .000
16214>        [XI/M=s. 42: TI/MP=. 52]
16215>        [LOSS= 2 : CN= 75.0]
16216>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16217>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 566. : MNI=. 013: SCI=   .0]
16218>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16219>        [SMN= 33. 81:  SMX/=225. 43:  SK=  .010]
16220> R0100: CO0323-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16221>      COMPUTE DUALHYD      1.0 01: A2              25.50     3.884 No_date   28:03   62.46  n/a    .000
16222>        Major System   /     1.0 02: A2- MI         1.43     2.026 No_date   28:04   62.46  n/a    .000
16223>        Minor System   \     1.0 03: A2- MN        24.07     1.818 No_date   27:50   62.71  n/a    .000
16224>        [MjSys tO=. 9240E+03,  Tot Ovf Vol =. 8908E+03,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
16225> R0100: CO0324-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16226>      ADD HYD              1.0 02: TODD_MN2n        1.99       .268 No_date   27:52   66.78  n/a    .000
16227>                  +      1.0 02: TODD_MN3n         .11       .016 No_date   27:52   66.78  n/a    .000
16228>                  +      1.0 02: TODD_MJ          1.59     1.889 No_date   28:02   68.65  n/a    .000
16229>                  +      1.0 02: TODD_P           3.06       .669 No_date   28:00   70.28  n/a    .000
16230>                  +      1.0 02: TODD_ALL       112.91    17.286 No_date   28:04   66.60  n/a    .000
16231>                  +      1.0 02: W_CLAR_Mn        1.69       .213 No_date   27:56   66.22  n/a    .000
16232>                SUM=     1.0 01: TODD           121.35    20.000 No_date   28:03   66.72  n/a    .000
16233> R0100: CO0325-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16234>      SAVE HYD             1.0 01: TODD           121.35    20.000 No_date   28:03   66.72  n/a    .000
16235>        fname : TODD.0100
16236>        remark: Total Flows at Todd Drain
16237> #*******************************************************************************
16238> #    Todd Pond 3
16239> #    - Rating curve obtained from Barrhaven South MSS modeling
16240> #    - stantec 2007, Tributary Drainage Area to MSS Pond 3 = 193 ha
16241> #*******************************************************************************
16242> R0100: CO0326-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16243>      ROUTE RESERVOIR ->     1.0 02: TODD           121.35    20.000 No_date   28:03   66.72  n/a    .000
16244>                 out <=     1.0 01: MS_P3          121.35    15.844 No_date   28:09   66.71  n/a    .000
16245>             overflow <=    1.0 03: P3- OVF           .00       .000 No_date   0:00     .00  n/a    .000
16246>        [MxSt orage=. 2834E+01  m3,  Tot Ovf Vol =. 0000E+00  m3,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
16247> R0100: CO0327-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16248>      ADD HYD              1.0 02: GreenB       54717.80  144.894 No_date   36:50   39.32  n/a    .000
16249>                  +      1.0 02: MS_P3          121.35    15.844 No_date   28:09   66.71  n/a    .000
16250>                  +      1.0 02: P3- OVF           .00       .000 No_date   0:00     .00  n/a    .000
16251>                  +      1.0 02: TODD_MNj          .11       .155 No_date   28:00   66.78  n/a    .000
16252>                  +      1.0 02: A2- MI           1.43     2.026 No_date   28:04   62.46  n/a    .000
16253>                SUM=     1.0 01: SN_TO        54840.69  145.243 No_date   36:49   39.38  n/a    .000
16254> R0100: CO0328-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16255>      SAVE HYD             1.0 01: SN_TO        54840.69  145.243 No_date   36:49   39.38  n/a    .000
16256>        fname : SN_TO.0100
16257>        remark: Total Flows at Todd Drain
16258> #
16259> # Hydrograph from Todd Drain routed to Corrigan Drain
16260> # Channel X-Section obtained from RVCA Hydraulic Model - Station 2462
16261> # 2021-02-19 Change the slope from 0.033 % (as per Stantec Report 2007) to 0.05 % so the model will be more stable and g
16262> R0100: CO0329-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16263>      ROUTE CHANNEL    ->     1.0 02: SN_TO        54840.69  145.243 No_date   36:49   39.38  n/a    .000
16264> *    [RDT= 1.00] out <-     1.0 01: N_TO         54840.69  145.165 No_date   36:58   39.38  n/a    .000
16265>        [L/S/m=  280./  050/ 045]
16266>        [Vmx=  881: Dmx= 3.684]
16267> R0100: CO0330-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16268>      SAVE HYD             1.0 01: N_TO         54840.69  145.165 No_date   36:58   39.38  n/a    .000
16269>        fname : N_TO.0100
16270>        remark: Total inflows at Station 2462
16271> #*******************************************************************************
16272> #    Catchment CORRIG
16273> #    - To Corrigan Drain (south of the Jock)
16274> #    - Primarily Developed (medium density)
16275> #    - JFSA JAN 2021, add Corrigan subcatchments as per IBI, July 2008
16276> #*******************************************************************************
16277> R0100: CO0331-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16278>      CONTINUOUS STANDHYD  1.0 01: corr1           15.87     3.185 No_date   28:01   70.28  .794    .000
16279>        [XI/M=s. 63: TI/MP=. 63]
16280>        [LOSS= 2 : CN= 77.0]
16281>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16282>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 325. : MNI=. 013: SCI=   .0]
16283>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16284>        [SMN= 31. 15:  SMX/=207. 66:  SK=  .010]
16285> R0100: CO0332-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16286>      COMPUTE DUALHYD      1.0 01: corr1            15.87     3.185 No_date   28:01   70.28  n/a    .000
16287>        Major System   /     1.0 02: corr1- MI        .00       .000 No_date   0:00     .00  n/a    .000
16288>        Minor System   \     1.0 03: corr1- MN      15.87     1.818 No_date   28:25   70.70  n/a    .000
16289>        [MjSys tO=. 7879E+03,  Tot Ovf Vol =. 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
16290> R0100: CO0333-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16291>      CONTINUOUS NASHYD    1.0 01: corr2            12.47       .388 No_date   29:10   45.95  .519    .000
16292>        [CN= 77. 0:  N= 3. 00:  Tp=  1. 10]
16293>        [IaREC= 4. 00:  SM N= 31. 15:  SMX/=207. 66:  SK=  .010]
16294>        [InterEventTime=  12. 00]
16295> R0100: CO0334-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16296>      CONTINUOUS STANDHYD  1.0 01: A1- Corrig       15.75     2.624 No_date   28:01   62.46  .705    .000
16297>        [XI/M=s. 42: TI/MP=. 52]
16298>        [LOSS= 2 : CN= 75.0]
16299>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16300>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 324. : MNI=. 013: SCI=   .0]
16301>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16302>        [SMN= 33. 81:  SMX/=225. 43:  SK=  .010]
16303> R0100: CO0335-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16304>      COMPUTE DUALHYD      1.0 01: A1- Corrig       15.75     2.624 No_date   28:01   62.46  n/a    .000
16305>        Major System   /     1.0 02: A1- MI           .00       .000 No_date   0:00     .00  n/a    .000
16306>        Minor System   \     1.0 03: A1- MN         15.75     1.818 No_date   27:55   62.48  n/a    .000
16307>        [MjSys tO=. 3859E+03,  Tot Ovf Vol =. 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
16308> R0100: CO0336-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16309>      CONTINUOUS NASHYD    1.0 01: B1               2.77       .143 No_date   28:09   29.03  .328    .000
16310>        [CN= 56. 0:  N= 3. 00:  Tp=  .23]
16311>        [IaREC= 4. 00:  SM N= 31. 15:  SMX/=531. 24:  SK=  .010]
16312>        [InterEventTime=  12. 00]
16313> R0100: CO0337-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16314>      CONTINUOUS STANDHYD  1.0 01: A4               1.27       .266 No_date   28:00   70.58  .797    .000
16315>        [XI/M=s. 65: TI/MP=. 65]
16316>        [LOSS= 2 : CN= 75.0]
16317>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16318>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 253. : MNI=. 013: SCI=   .0]
16319>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16320>        [SMN= 33. 81:  SMX/=225. 43:  SK=  .010]
16321> R0100: CO0338-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16322>      COMPUTE DUALHYD      1.0 01: A4               1.27       .266 No_date   28:00   70.58  n/a    .000
16323>        Major System   /     1.0 02: A4- MI           .00       .000 No_date   0:00     .00  n/a    .000
16324>        Minor System   \     1.0 03: A4- MN         1.27       .266 No_date   28:00   70.58  n/a    .000
16325>        [MjSys tO=. 0000E+00,  Tot Ovf Vol =. 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
16326> R0100: CO0339-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16327>      ADD HYD              1.0 02: A1- MI           .00       .000 No_date   0:00     .00  n/a    .000
16328>                  +      1.0 02: A1- MN         15.75     1.818 No_date   27:55   62.48  n/a    .000
16329>                  +      1.0 02: corr1- MI        .00       .000 No_date   0:00     .00  n/a    .000
16330>                  +      1.0 02: corr1- MN      15.87     1.818 No_date   28:25   70.70  n/a    .000
16331>                  +      1.0 02: corr2            12.47       .388 No_date   29:10   45.95  n/a    .000
16332>                  +      1.0 02: B1               2.77       .143 No_date   28:09   29.03  n/a    .000
16333>                  +      1.0 02: A4- MN           1.27       .266 No_date   28:00   70.58  n/a    .000
16334>                SUM=     1.0 01: MH01            48.13     4.085 No_date   28:02   59.20  n/a    .000
16335> R0100: CO0340-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16336>      SAVE HYD             1.0 01: MH01            48.13     4.085 No_date   28:02   59.20  n/a    .000
16337>        fname : MH01.0100
16338>        remark: Total Flows at MH01
16339> R0100: CO0341-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16340>      ROUTE PIPE       ->     1.0 02: MH01            48.13     4.085 No_date   28:02   59.20  n/a    .000
16341> *    [RDT= 1.00] out <-     1.0 01: 101-102         48.13     4.065 No_date   28:03   59.20  n/a    .000
16342>        [L/S/m=  368./  540/ 013]
16343>        [Vmx= 3.154: Dmx= 1.125]
16344>        [Di n= 1.05: Dused= 1.37]
16345> R0100: CO0342-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16346>      ADD HYD              1.0 02: A2- MN           24.07     1.818 No_date   27:50   62.71  n/a    .000
16347>                  +      1.0 02: 101-102          48.13     4.065 No_date   28:03   59.20  n/a    .000
16348>                SUM=     1.0 01: MH02             72.20     5.883 No_date   28:03   60.37  n/a    .000
16349> R0100: CO0343-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16350>      SAVE HYD             1.0 01: MH02             72.20     5.883 No_date   28:03   60.37  n/a    .000
16351>        fname : MH02.0100
16352>        remark: Total Flows at MH02
16353> R0100: CO0344-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16354>      CONTINUOUS STANDHYD  1.0 01: A5               1.60       .346 No_date   28:01   73.40  .829    .000
16355>        [XI/M=s. 71: TI/MP=. 71]
16356>        [LOSS= 2 : CN= 75.0]
16357>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16358>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 300. : MNI=. 013: SCI=   .0]
16359>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16360>        [SMN= 33. 81:  SMX/=225. 43:  SK=  .010]
16361> R0100: CO0345-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16362>      ADD HYD              1.0 02: A4- MI           .00       .000 No_date   0:00     .00  n/a    .000
16363>                  +      1.0 02: A5               1.60       .346 No_date   28:01   73.40  n/a    .000
16364>                SUM=     1.0 01: AST              1.60       .346 No_date   28:01   73.40  n/a    .000
16365> R0100: CO0346-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16366>      COMPUTE DUALHYD      1.0 01: AST              1.60       .346 No_date   28:01   73.40  n/a    .000
16367>        Major System   /     1.0 02: A5- MI           .00       .000 No_date   0:00     .00  n/a    .000
16368>        Minor System   \     1.0 03: A5- MN         1.60       .346 No_date   28:01   73.40  n/a    .000
16369>        [MjSys tO=. 0000E+00,  Tot Ovf Vol =. 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
16370> R0100: CO0347-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16371>      ROUTE PIPE       ->     1.0 02: MH02            72.20     5.883 No_date   28:03   60.37  n/a    .000
16372> *    [RDT= 1.00] out <-     1.0 01: 102-103         72.20     5.831 No_date   28:12   60.37  n/a    .000
16373>        [L/S/m=  504./  280/ 013]
16374>        [Vmx= 2.701: Dmx= 1.459]
16375>        [Di n= 1.50: Dused= 1.78]
16376> R0100: CO0348-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16377>      ADD HYD              1.0 02: 102-103          72.20     5.831 No_date   28:12   60.37  n/a    .000
16378>                  +      1.0 02: A5- MN           1.60       .346 No_date   28:01   73.40  n/a    .000
16379>                SUM=     1.0 01: MH03             73.80     6.079 No_date   28:04   60.65  n/a    .000
16380> R0100: CO0349-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16381>      SAVE HYD             1.0 01: MH03             73.80     6.079 No_date   28:04   60.65  n/a    .000
16382>        fname : MH03.0100
16383>        remark: Total Flows at MH03
16384> R0100: CO0350-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16385>      ROUTE PIPE       ->     1.0 02: AST              1.60       .346 No_date   28:01   73.40  n/a    .000
16386>        [RDT= 1.00] out <-     1.0 01: 103-104         73.80     6.014 No_date   28:05   60.65  n/a    .000
16387>        [L/S/m=  438./  460/ 013]
16388>        [Vmx= 3. 295: Dmx= 1. 330]
16389>        [Di n= 1. 65: Dused= 1. 65]
16390> R0100: CO0351-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16391>      CONTINUOUS STANDHYD  1.0 01: A6               1.56       .339 No_date   28:00   73.40  .829    .000
16392>        [XI/M=s. 71: TI/MP=. 71]
16393>        [LOSS= 2 : CN= 75.0]
16394>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16395>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 280. : MNI=. 013: SCI=   .0]
16396>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16397>        [SMN= 33. 81:  SMX/=225. 43:  SK=  .010]
16398> R0100: CO0352-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16399>      ADD HYD              1.0 02: A5- MI           .00       .000 No_date   0:00     .00  n/a    .000
16400>                  +      1.0 02: A6               1.56       .339 No_date   28:00   73.40  n/a    .000
16401>                SUM=     1.0 01: A6T              1.56       .339 No_date   28:00   73.40  n/a    .000
16402> R0100: CO0353-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16403>      COMPUTE DUALHYD      1.0 01: A6T              1.56       .339 No_date   28:00   73.40  n/a    .000
16404>        Major System   /     1.0 02: A6- MI           .00       .000 No_date   0:00     .00  n/a    .000
16405>        Minor System   \     1.0 03: A6- MN         1.56       .339 No_date   28:00   73.40  n/a    .000
16406>        [MjSys tO=. 0000E+00,  Tot Ovf Vol =. 0000E+00,  N- Ovf =     0,  Tot Dur Ovf =    0. hrs]
16407> R0100: CO0354-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16408>      ADD HYD              1.0 02: A6- MN           1.56       .339 No_date   28:00   73.40  n/a    .000
16409>                  +      1.0 02: 103-104          73.80     6.014 No_date   28:05   60.65  n/a    .000
16410>                  +      1.0 02: TODD_MN          28.64     3.314 No_date   27:54   68.65  n/a    .000
16411>                SUM=     1.0 01: MH04            104.00     9.601 No_date   28:03   63.04  n/a    .000
16412> R0100: CO0355-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16413>      SAVE HYD             1.0 01: MH04            104.00     9.601 No_date   28:03   63.04  n/a    .000
16414>        fname : MH04.0100
16415>        remark: Total Flows at MH04
16416> R0100: CO0356-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16417>      CONTINUOUS STANDHYD  1.0 01: B2               12.31     2.012 No_date   28:02   62.88  .710    .000
16418>        [XI/M=s. 41: TI/MP=. 54]
16419>        [LOSS= 2 : CN= 75.0]
16420>        [Pervious      area: IAper= 4. 67: SLPP=1. 00: LGP=  40. : MNP=. 250: SCP=   .0]
16421>        [Impervious    area: IAimp= 1. 57: SLPI=1. 00: LGI= 417. : MNI=. 013: SCI=   .0]
16422>        [IaREC/mp=   4. 00: IaRECper=   4. 00]
16423>        [SMN= 33. 81:  SMX/=225. 43:  SK=  .010]
16424> R0100: CO0357-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16425>      COMPUTE DUALHYD      1.0 01: B2               12.31     2.012 No_date   28:02   62.88  n/a    .000
16426>        Major System   /     1.0 02: B2- MI           .36       .020 No_date   28:05   62.88  n/a    .000
16427>        Minor System   \     1.0 03: B2- MN         11.95     1.029 No_date   27:51   62.91  n/a    .000
16428>        [MjSys tO=. 5080E+03,  Tot Ovf Vol =. 2245E+03,  N- Ovf =     1,  Tot Dur Ovf =    0. hrs]
16429> R0100: CO0358-------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDat e_hh: mm----RVmm R. C. ---DWFcms
16430>      ROUTE PIPE       ->     1.0 02: B2- MN           11.95     1.029 No_date   27:51   62.91  n/a    .000
16431> *    [RDT= 1.00] out <-     1.0 01: 315-333          11.95     1.029 No_date   28:35   62.91  n/a    .000
16432>        [L/S/m=  254./  100/ 013]
16433>        [Vmx= 1.220: Dmx=  .838]
16434>        [
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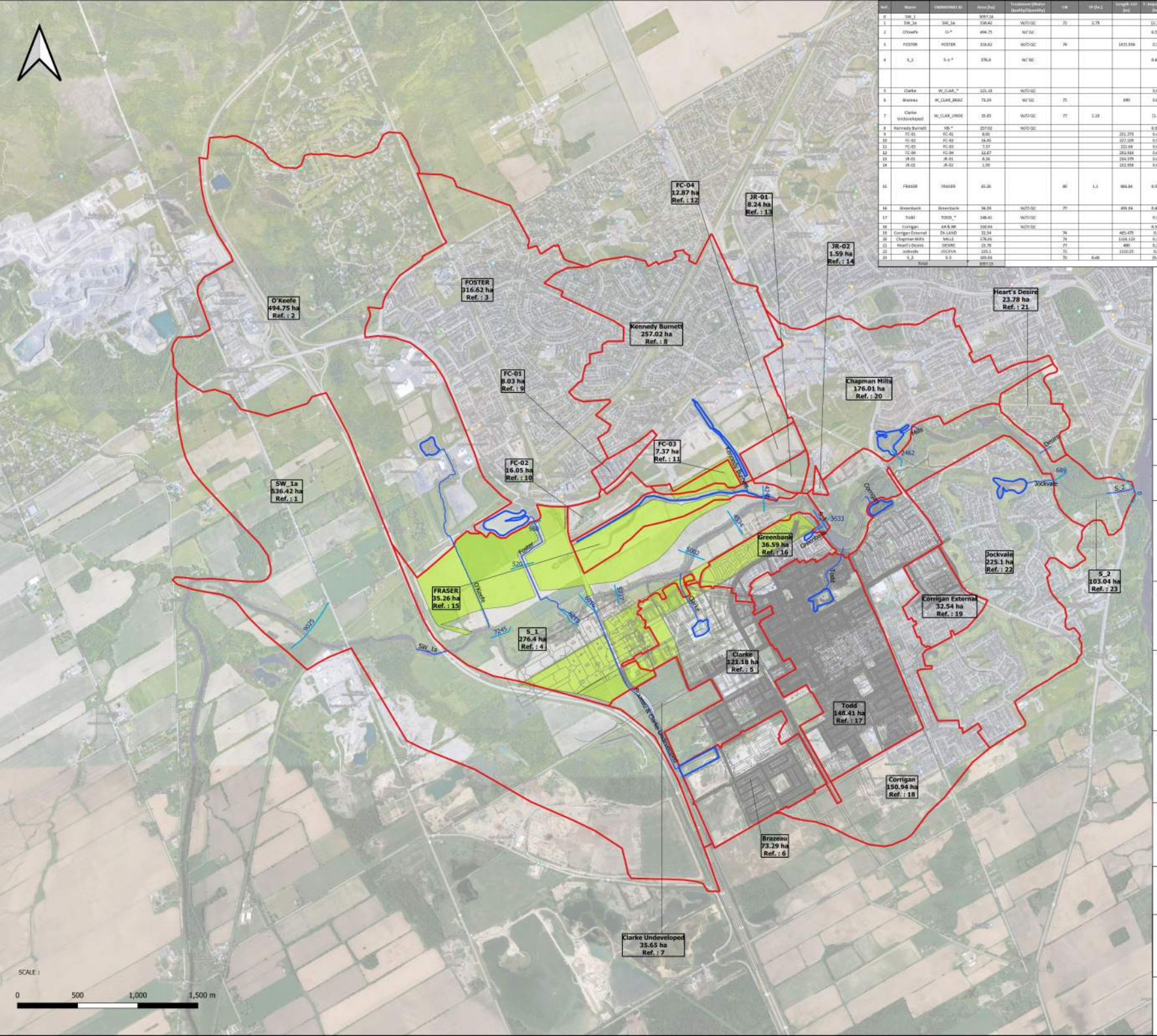
16457>     ROUTE PIPE          ->      1. 0 02: MH33          17. 35      1. 488 No_date    28: 35   62. 96   n/ a      . 000
16458> *   [ RDT= 1. 00] out <-        1. 0 01: 333- 335      17. 35      1. 489 No_date    28: 27   62. 96   n/ a      . 000
16459>      [ L/ S/ n=  251. /  . 100/ . 013]
16460>      [ Vmx= 1. 302: Dmx= 1. 057]
16461>      [ Dk= 1. 20: Dused= 1. 29]
16462> R0100: C00364- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16463>     ROUTE PIPE          ->      1. 0 02: 333- 335      17. 35      1. 489 No_date    28: 27   62. 96   n/ a      . 000
16464> *   [ RDT= 1. 00] out <-        1. 0 01: 335- 338      17. 35      1. 481 No_date    28: 35   62. 96   n/ a      . 000
16465>      [ L/ S/ n=  185. /  . 100/ . 013]
16466>      [ Vmx= 1. 302: Dmx= 1. 057]
16467>      [ Dk= 1. 20: Dused= 1. 29]
16468> R0100: C00365- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16469>     ROUTE PIPE          ->      1. 0 02: 335- 338      17. 35      1. 481 No_date    28: 35   62. 96   n/ a      . 000
16470>      [ RDT= 1. 00] out <-       1. 0 01: 338- 340      17. 35      1. 480 No_date    28: 35   62. 96   n/ a      . 000
16471>      [ L/ S/ n=  233. /  . 100/ . 013]
16472>      [ Vmx= 1. 330: Dmx=  . 981]
16473>      [ Dk= 1. 35: Dused= 1. 35]
16474> R0100: C00366- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16475>     CONTI NUOUS STANDHYD     1. 0 01: B4            7. 60      1. 252 No_date    28: 02   62. 88   n/ a      . 710      . 000
16476>      [ Xl M= 4. 41: TI M= . 54]
16477>      [ LOSS= 2 : CN= 75. 0]
16478>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16479>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 388. : MNI = . 013: SCI =    . 0]
16480>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16481>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16482> R0100: C00367- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16483>     COMPUTE DUALHYD          1. 0 01: B4            7. 60      1. 252 No_date    28: 02   62. 88   n/ a      . 000
16484>      Major System    /               1. 0 02: B4- MI        . 17      . 411 No_date    28: 06   62. 88   n/ a      . 000
16485>      Minor System    \               1. 0 03: B4- MN        7. 43      . 655 No_date    27: 51   62. 90   n/ a      . 000
16486>      [ MJ Sys To= . 5230E+ 03,  Tot Or Vol = . 1079E+ 03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
16487> R0100: C00368- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16488>     ADD HYD                  1. 0 02: 338- 340      17. 35      1. 480 No_date    28: 35   62. 96   n/ a      . 000
16489>                         +    1. 0 02: B4- MN        7. 43      . 655 No_date    27: 51   62. 90   n/ a      . 000
16490>                         SUM=  1. 0 01: MH340       24. 78      2. 126 No_date    28: 34   62. 94   n/ a      . 000
16491> R0100: C00369- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16492>     SAVE HYD                 1. 0 01: MH340         24. 78      2. 126 No_date    28: 34   62. 94   n/ a      . 000
16493>      fname : MH340. 0100
16494>      remark: Total Flows at MH340
16495> R0100: C00370- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16496>     ROUTE PIPE          ->      1. 0 02: MH340         24. 78      2. 126 No_date    28: 34   62. 94   n/ a      . 000
16497>      [ RDT= 1. 00] out <-       1. 0 01: 340- 104      24. 78      2. 116 No_date    28: 21   62. 94   n/ a      . 000
16498>      [ L/ S/ n=  240. /  . 150/ . 013]
16499>      [ Vmx= 1. 726: Dmx=  . 923]
16500>      [ Dk= 1. 65: Dused= 1. 65]
16501> R0100: C00371- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16502>     ADD HYD                  1. 0 02: 340- 104      24. 78      2. 116 No_date    28: 21   62. 94   n/ a      . 000
16503>                         +    1. 0 02: MH104         104. 00      9. 601 No_date    28: 03   63. 04   n/ a      . 000
16504>                         SUM=  1. 0 01: MH104T       128. 78     11. 560 No_date    28: 04   63. 02   n/ a      . 000
16505> R0100: C00372- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16506>     ROUTE PIPE          ->      1. 0 02: MH104T        128. 78     11. 560 No_date    28: 04   63. 02   n/ a      . 000
16507> *   [ RDT= 1. 00] out <-        1. 0 01: 104- 105      128. 78     11. 359 No_date    28: 10   63. 02   n/ a      . 000
16508>      [ L/ S/ n=  380. /  . 100/ . 013]
16509>      [ Vmx= 2. 115: Dmx= 2. 014]
16510>      [ HDT= 2. 37: WDT= 2. 71]
16511> R0100: C00373- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16512>     CONTI NUOUS STANDHYD     1. 0 01: B5            2. 20      . 437 No_date    28: 00   66. 83   . 755      . 000
16513>      [ Xl M= 5. 57: TI M= . 57]
16514>      [ LOSS= 2 : CN= 75. 0]
16515>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16516>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 187. : MNI = . 013: SCI =    . 0]
16517>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16518>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16519> R0100: C00374- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16520>     COMPUTE DUALHYD          1. 0 01: B5            2. 20      . 437 No_date    28: 00   66. 83   n/ a      . 000
16521>      Major System    /               1. 0 02: B5- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16522>      Minor System    \               1. 0 03: B5- MN        2. 20      . 260 No_date    27: 51   66. 87   n/ a      . 000
16523>      [ MJ Sys To= . 9053E+ 02,  Tot Or Vol = . 0000E+ 00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
16524> R0100: C00375- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16525>     CONTI NUOUS STANDHYD     1. 0 01: A8             . 96      . 219 No_date    28: 00   73. 40   . 829      . 000
16526>      [ Xl M= 5. 71: TI M= . 71]
16527>      [ LOSS= 2 : CN= 75. 0]
16528>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16529>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 186. : MNI = . 013: SCI =    . 0]
16530>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16531>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16532> R0100: C00376- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16533>     ADD HYD                  1. 0 02: A6- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16534>                         +    1. 0 02: A8            . 96      . 219 No_date    28: 00   73. 40   n/ a      . 000
16535>                         SUM=  1. 0 01: A8T           . 96      . 219 No_date    28: 00   73. 40   n/ a      . 000
16536> R0100: C00377- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16537>     COMPUTE DUALHYD          1. 0 01: A8T           . 96      . 219 No_date    28: 00   73. 40   n/ a      . 000
16538>      Major System    /               1. 0 02: A8- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16539>      Minor System    \               1. 0 03: A8- MN        . 96      . 219 No_date    28: 00   73. 40   n/ a      . 000
16540>      [ MJ Sys To= . 0000E+ 00,  Tot Or Vol = . 0000E+ 00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
16541> R0100: C00378- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16542>     ADD HYD                  1. 0 02: 104- 105      128. 78     11. 359 No_date    28: 10   63. 02   n/ a      . 000
16543>                         +    1. 0 02: B5- MN        2. 20      . 260 No_date    27: 51   66. 87   n/ a      . 000
16544>                         +    1. 0 02: A8- MN        . 96      . 219 No_date    28: 00   73. 40   n/ a      . 000
16545>                         +    1. 0 02: TODD_MG j     . 01      . 009 No_date    28: 00   66. 78   n/ a      . 000
16546>                         SUM=  1. 0 01: MH105       131. 94     11. 688 No_date    28: 10   63. 16   n/ a      . 000
16547> R0100: C00379- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16548>     SAVE HYD                 1. 0 01: MH105         131. 94     11. 688 No_date    28: 10   63. 16   n/ a      . 000
16549>      fname : MH105. 0100
16550>      remark: Total Flows at MH105
16551> R0100: C00380- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16552> *   DI VERT HYD          ->      1. 0 01: A8- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16553>      di verted <=            1. 0 02: A8- MI- JR    . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16554>      di verted <=            1. 0 03: A8- MI- B6    . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16555> R0100: C00381- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16556>     DI VERT HYD          ->      1. 0 01: MH105         131. 94     11. 688 No_date    28: 10   63. 16   n/ a      . 000
16557>      di verted <=            1. 0 02: MH105- JR     36. 57      8. 679 No_date    28: 10   63. 16   n/ a      . 000
16558>      di verted <=            1. 0 03: MH105- B6     95. 37      3. 009 No_date    28: 10   63. 16   n/ a      . 000
16559> R0100: C00382- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16560>     CONTI NUOUS STANDHYD     1. 0 01: B7            7. 19      1. 283 No_date    28: 01   62. 88   . 710      . 000
16561>      [ Xl M= 4. 41: TI M= . 54]
16562>      [ LOSS= 2 : CN= 75. 0]
16563>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16564>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 211. : MNI = . 013: SCI =    . 0]
16565>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16566>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16567> R0100: C00383- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16568>     ADD HYD                  1. 0 02: B4- MI        . 17      . 411 No_date    28: 06   62. 88   n/ a      . 000
16569>                         +    1. 0 02: B7            7. 19      1. 283 No_date    28: 01   62. 88   n/ a      . 000
16570>                         SUM=  1. 0 01: B7- B4MI      7. 36      1. 300 No_date    28: 06   62. 88   n/ a      . 000
16571> R0100: C00384- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16572>     COMPUTE DUALHYD          1. 0 01: B7- B4MI      7. 36      1. 300 No_date    28: 06   62. 88   n/ a      . 000
16573>      Major System    /               1. 0 02: B7R- MI       . 36      . 671 No_date    28: 06   62. 88   n/ a      . 000
16574>      Minor System    \               1. 0 03: B7R- MN       7. 00      . 629 No_date    28: 31   62. 97   n/ a      . 000
16575>      [ MJ Sys To= . 3110E+ 03,  Tot Or Vol = . 2280E+ 03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
16576> R0100: C00385- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16577>     ROUTE PIPE          ->      1. 0 02: B7R- MN       7. 00      . 629 No_date    28: 31   62. 97   n/ a      . 000
16578> *   [ RDT= 1. 00] out <-        1. 0 01: 360- 106A     7. 00      . 629 No_date    28: 31   62. 97   n/ a      . 000
16579>      [ L/ S/ n=  167. /  . 100/ . 013]
16580>      [ Vmx= 1. 089: Dmx=  . 665]
16581>      [ Dk= 1. 05: Dused= 1. 05]
16582> R0100: C00386- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16583>     CONTI NUOUS STANDHYD     1. 0 01: B6            3. 29      . 602 No_date    28: 00   62. 88   . 710      . 000
16584>      [ Xl M= 4. 41: TI M= . 54]
16585>      [ LOSS= 2 : CN= 75. 0]
16586>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16587>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 148. : MNI = . 013: SCI =    . 0]
16588>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16589>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16590> R0100: C00387- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16591>     COMPUTE DUALHYD          1. 0 01: B6            3. 29      . 602 No_date    28: 00   62. 88   n/ a      . 000
16592>      Major System    /               1. 0 02: B6- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16593>      Minor System    \               1. 0 03: B6- MN        3. 29      . 064 No_date    27: 33   62. 92   n/ a      . 000
16594>      [ MJ Sys To= . 7353E+ 03,  Tot Or Vol = . 0000E+ 00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
16595> R0100: C00388- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16596>     CONTI NUOUS STANDHYD     1. 0 01: EX- LAND      32. 50      5. 231 No_date    28: 02   62. 70   . 708      . 000
16597>      [ Xl M= 5. 50: TI M= . 50]
16598>      [ LOSS= 2 : CN= 74. 0]
16599>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16600>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 465. : MNI = . 013: SCI =    . 0]
16601>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16602>      [ SMN= 36. 67:  SMAX= 244. 49:  SK= . 010]
16603> R0100: C00389- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16604>     COMPUTE DUALHYD          1. 0 01: EX- LAND      32. 50      5. 231 No_date    28: 02   62. 70   n/ a      . 000
16605>      Major System    /               1. 0 02: EX- LAND- MI  1. 77      2. 874 No_date    28: 03   62. 70   n/ a      . 000
16606>      Minor System    \               1. 0 03: EX- LAND- MN  30. 73      2. 275 No_date    27: 48   62. 82   n/ a      . 000
16607>      [ MJ Sys To= . 1365E+ 04,  Tot Or Vol = . 1111E+ 04,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
16608> R0100: C00390- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16609>     ADD HYD                  1. 0 02: B7R- MI       . 36      . 671 No_date    28: 06   62. 88   n/ a      . 000
16610>                         +    1. 0 02: EX- LAND- MI  1. 77      2. 874 No_date    28: 03   62. 70   n/ a      . 000
16611>                         +    1. 0 02: B5- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16612>                         +    1. 0 02: B6- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16613>                         +    1. 0 02: B6- MN        3. 29      . 064 No_date    27: 33   62. 92   n/ a      . 000
16614>                         +    1. 0 02: A8- MI- B6    . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16615>                         SUM=  1. 0 01: B6- B7ExMI    5. 42      3. 483 No_date    28: 03   62. 85   n/ a      . 000
16616> R0100: C00391- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16617>     COMPUTE DUALHYD          1. 0 01: B6- B7ExMI    5. 42      3. 483 No_date    28: 03   62. 85   n/ a      . 000
16618>      Major System    /               1. 0 02: B6R- MI       . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16619>      Minor System    \               1. 0 03: B6R- MN       5. 42      . 064 No_date    27: 33   62. 85   n/ a      . 000
16620>      [ MJ Sys To= . 1339E+ 04,  Tot Or Vol = . 0000E+ 00,  N- Or f =     0,  Tot Dur Or f =     0. hrs]
16621> R0100: C00392- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16622>     ROUTE PIPE          ->      1. 0 02: MH105- B6     95. 37      3. 009 No_date    28: 10   63. 16   n/ a      . 000
16623>      [ RDT= 1. 00] out <-       1. 0 01: 105- 106A     95. 37      3. 009 No_date    28: 04   63. 16   n/ a      . 000
16624>      [ L/ S/ n=  208. /  . 100/ . 013]
16625>      [ Vmx= 1. 597: Dmx= 1. 249]
16626>      [ Dk= 1. 80: Dused= 1. 80]
16627> R0100: C00393- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16628>     ADD HYD                  1. 0 02: 360- 106A     7. 00      . 629 No_date    28: 31   62. 97   n/ a      . 000
16629>                         +    1. 0 02: 105- 106A     95. 37      3. 009 No_date    28: 04   63. 16   n/ a      . 000
16630>                         +    1. 0 02: B6R- MN       5. 42      . 064 No_date    27: 33   62. 85   n/ a      . 000
16631>                         +    1. 0 02: B6R- MI       . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16632>                         SUM=  1. 0 01: MH106A       107. 80      3. 702 No_date    28: 10   63. 13   n/ a      . 000
16633> R0100: C00394- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16634>     SAVE HYD                 1. 0 01: MH106A        107. 80      3. 702 No_date    28: 10   63. 13   n/ a      . 000
16635>      fname : MH106A 0100
16636>      remark: Total Flows at MH106A
16637> R0100: C00395- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16638>     ROUTE PIPE          ->      1. 0 02: MH106A        107. 80      3. 702 No_date    28: 10   63. 13   n/ a      . 000
16639> *   [ RDT= 1. 00] out <-        1. 0 01: 106A- 106     107. 80      3. 757 No_date    28: 13   63. 13   n/ a      . 000
16640>      [ L/ S/ n=  190. /  . 100/ . 013]
16641>      [ Vmx= 1. 635: Dmx= 1. 487]
16642>      [ Dk= 1. 80: Dused= 1. 81]
16643> R0100: C00396- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16644>     CONTI NUOUS STANDHYD     1. 0 01: A9            2. 44      . 539 No_date    28: 00   73. 40   . 829      . 000
16645>      [ Xl M= 5. 71: TI M= . 71]
16646>      [ LOSS= 2 : CN= 75. 0]
16647>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16648>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 262. : MNI = . 013: SCI =    . 0]
16649>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16650>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16651> R0100: C00397- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16652>     COMPUTE DUALHYD          1. 0 01: A9            2. 44      . 539 No_date    28: 00   73. 40   n/ a      . 000
16653>      Major System    /               1. 0 02: A9- MI        . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16654>      Minor System    \               1. 0 03: A9- MN        2. 44      . 539 No_date    28: 00   73. 40   n/ a      . 000
16655> R0100: C00398- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16656>     ADD HYD                  1. 0 02: 106A- 106     107. 80      3. 757 No_date    28: 13   63. 13   n/ a      . 000
16657>                         +    1. 0 02: A9- MN        2. 44      . 539 No_date    28: 00   73. 40   n/ a      . 000
16658>                         SUM=  1. 0 01: MH106       110. 24      4. 227 No_date    28: 00   63. 36   n/ a      . 000
16659> R0100: C00399- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16660>     SAVE HYD                 1. 0 01: MH106         110. 24      4. 227 No_date    28: 00   63. 36   n/ a      . 000
16661>      fname : MH106. 0100
16662>      remark: Total Flows at MH106
16663> R0100: C00400- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16664>     ROUTE PIPE          ->      1. 0 02: MH106         110. 24      4. 227 No_date    28: 00   63. 36   n/ a      . 000
16665> *   [ RDT= 1. 00] out <-        1. 0 01: 106- 107      110. 24      4. 179 No_date    28: 02   63. 36   n/ a      . 000
16666>      [ L/ S/ n=  123. /  . 100/ . 013]
16667>      [ Vmx= 1. 690: Dmx= 1. 563]
16668>      [ Dk= 1. 80: Dused= 1. 90]
16669> R0100: C00401- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16670>     CONTI NUOUS STANDHYD     1. 0 01: A10           4. 14      . 693 No_date    28: 01   59. 73   . 674      . 000
16671>      [ Xl M= . 35: TI M= . 47]
16672>      [ LOSS= 2 : CN= 75. 0]
16673>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16674>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 183. : MNI = . 013: SCI =    . 0]
16675>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16676>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16677> R0100: C00402- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16678>     COMPUTE DUALHYD          1. 0 01: A10           4. 14      . 693 No_date    28: 01   59. 73   n/ a      . 000
16679>      Major System    /               1. 0 02: A10- MI       . 09      . 218 No_date    28: 05   59. 73   n/ a      . 000
16680>      Minor System    \               1. 0 03: A10- MN       4. 05      . 310 No_date    27: 48   60. 02   n/ a      . 000
16681>      [ MJ Sys To= . 2280E+ 03,  Tot Or Vol = . 5334E+ 02,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
16682> R0100: C00403- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16683>     CONTI NUOUS STANDHYD     1. 0 01: A11           10. 61      1. 941 No_date    28: 01   67. 38   . 761      . 000
16684>      [ Xl M= . 53: TI M= . 62]
16685>      [ LOSS= 2 : CN= 75. 0]
16686>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16687>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 379. : MNI = . 013: SCI =    . 0]
16688>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16689>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16690> R0100: C00404- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16691>     COMPUTE DUALHYD          1. 0 01: A11           10. 61      1. 941 No_date    28: 01   67. 38   n/ a      . 000
16692>      Major System    /               1. 0 02: A11- MI       . 16      . 564 No_date    28: 06   67. 38   n/ a      . 000
16693>      Minor System    \               1. 0 03: A11- MN       10. 45      . 993 No_date    28: 34   67. 69   n/ a      . 000
16694>      [ MJ Sys To= . 5560E+ 03,  Tot Or Vol = . 1090E+ 03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
16695> R0100: C00405- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16696>     ADD HYD                  1. 0 02: 106- 107      110. 24      4. 179 No_date    28: 02   63. 36   n/ a      . 000
16697>                         +    1. 0 02: A10- MN       4. 05      . 310 No_date    27: 48   60. 02   n/ a      . 000
16698>                         +    1. 0 02: A11- MN       10. 45      . 993 No_date    28: 34   67. 69   n/ a      . 000
16699>                         SUM=  1. 0 01: MH107       124. 74      5. 482 No_date    28: 02   63. 62   n/ a      . 000
16700> R0100: C00406- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16701>     SAVE HYD                 1. 0 01: MH107         124. 74      5. 482 No_date    28: 02   63. 62   n/ a      . 000
16702>      fname : MH107. 0100
16703>      remark: Total Flows at MH107
16704> R0100: C00407- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16705>     ROUTE PIPE          ->      1. 0 02: MH107         124. 74      5. 482 No_date    28: 02   63. 62   n/ a      . 000
16706> *   [ RDT= 1. 00] out <-        1. 0 01: 107- 119      124. 74      5. 468 No_date    28: 04   63. 62   n/ a      . 000
16707>      [ L/ S/ n=  114. /  . 120/ . 013]
16708>      [ Vmx= 1. 932: Dmx= 1. 665]
16709>      [ Dk= 1. 80: Dused= 2. 03]
16710> R0100: C00408- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16711>     ROUTE PIPE          ->      1. 0 02: 107- 119      124. 74      5. 468 No_date    28: 04   63. 62   n/ a      . 000
16712> *   [ RDT= 1. 00] out <-        1. 0 01: 119- 108      124. 74      5. 480 No_date    28: 05   63. 62   n/ a      . 000
16713>      [ L/ S/ n=   66. /  . 120/ . 013]
16714>      [ Vmx= 1. 930: Dmx= 1. 664]
16715>      [ Dk= 1. 80: Dused= 2. 03]
16716> R0100: C00409- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16717>     CONTI NUOUS STANDHYD     1. 0 01: A12           12. 29      2. 213 No_date    28: 01   62. 88   . 710      . 000
16718>      [ Xl M= . 41: TI M= . 54]
16719>      [ LOSS= 2 : CN= 75. 0]
16720>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16721>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 183. : MNI = . 013: SCI =    . 0]
16722>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16723>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16724> R0100: C00410- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16725>     COMPUTE DUALHYD          1. 0 01: A12           12. 29      2. 213 No_date    28: 01   62. 88   n/ a      . 000
16726>      Major System    /               1. 0 02: A12- MI       . 23      . 599 No_date    28: 05   62. 88   n/ a      . 000
16727>      Minor System    \               1. 0 03: A12- MN       12. 06      1. 029 No_date    27: 48   63. 11   n/ a      . 000
16728>      [ MJ Sys To= . 6720E+ 03,  Tot Or Vol = . 1477E+ 03,  N- Or f =     1,  Tot Dur Or f =     0. hrs]
16729> R0100: C00411- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16730>     CONTI NUOUS STANDHYD     1. 0 01: A13           2. 59      . 540 No_date    28: 01   73. 40   . 829      . 000
16731>      [ Xl M= 5. 71: TI M= . 71]
16732>      [ LOSS= 2 : CN= 75. 0]
16733>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16734>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 379. : MNI = . 013: SCI =    . 0]
16735>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16736>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16737> R0100: C00412- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16738>     COMPUTE DUALHYD          1. 0 01: A13           2. 59      . 540 No_date    28: 01   73. 40   n/ a      . 000
16739>      Major System    /               1. 0 02: A13- MI       . 00      . 000 No_date    0: 00    . 00     n/ a      . 000
16740>      Minor System    \               1. 0 03: A13- MN       2. 59      . 540 No_date    28: 01   73. 40   n/ a      . 000
16741> R0100: C00413- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16742>     CONTI NUOUS STANDHYD     1. 0 01: Pond- Block   2. 94      . 490 No_date    28: 00   59. 56   . 673      . 000
16743>      [ Xl M= 4. 41: TI M= . 41]
16744>      [ LOSS= 2 : CN= 75. 0]
16745>      [ Pervious      area:  I Aper= 4. 67: SLPP= 1. 00: LGP=   40. : MNP= . 250: SCP=    . 0]
16746>      [ Impervious    area:  I Aimp= 1. 57: SLPI = 1. 00: LGI = 183. : MNI = . 013: SCI =    . 0]
16747>      [ I aREC i mp=   4. 00: I aREC per=    4. 00]
16748>      [ SMN= 33. 81:  SMAX= 225. 43:  SK= . 010]
16749> R0100: C00414- ---------- DTmi n- I D: NHYD- ---------- AREA ha- QPEAK cms- Tpeak Dat e_ hh: mn- - - - RVmm R. C. - - - - DWF cms
16750>     ADD HYD                  1. 0 01: 119- 108      124. 74      5. 480 No_date    28: 05   
```

```
16831>       ROUTE RESERVOIR ->          1.0 02: MILLS          175.99    20.390 No_date    28:06    56.87  n/a      .000
16832>                    out <=         1.0 01: MILL_P         146.22     4.050 No_date    28:08    56.87  n/a      .000
16833>                overflow <=        1.0 03: MILL-OV         29.77    16.228 No_date    28:08    56.87  n/a      .000
16834>         {MkStOked=.2310E+01   m3,  TotOvfVol=.1693E+01   m3,  N-Ovf=     2,  TotDurOvf=     1.hrs}
16835> R0100: C00426------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16836>       ADD HYD                     1.0 02: N_MI          55020.07   145.768 No_date    36:59    39.46  n/a      .000
16837>                           +       1.0 02: MILL-OV          29.77    16.228 No_date    28:08    56.87  n/a      .000
16838>                           +       1.0 02: MILL_P          146.22     4.050 No_date    28:08    56.87  n/a      .000
16839>                      SUM=         1.0 01: SN_MI         55196.05   146.399 No_date    36:58    39.51  n/a      .000
16840> R0100: C00427------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16841>       SAVE HYD                    1.0 01: SN_MI         55196.05   146.399 No_date    36:58    39.51  n/a      .000
16842>            fname: SN_MI.0100
16843>            remark: Total Flows at Jockvale Road
16844> #
16845> # Hydrograph from Jockvale Road routed to Heart's Desire
16846> # Channel X-Section obtained from RVCA Hydraulic Model - Station 689
16847> #
16848> R0100: C00428------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16849>       ROUTE CHANNEL     ->        1.0 02: SN_MI         55196.05   146.399 No_date    36:58    39.51  n/a      .000
16850>          {RDT= 1.00} out<-         1.0 01: N_DE          55196.05   146.071 No_date    37:13    39.51  n/a      .000
16851>             {L/S/n= 1962./ .223/ .045}
16852>             {Vmx= 1.642: Dmx= 2.661}
16853> #*******************************************************************************
16854> #     Catchment DESIRE
16855> #     - To Jock River (north of the Jock)
16856> #     - Rural-estate subdivision (Heart's Desire Community)
16857> #*******************************************************************************
16858> R0100: C00429------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16859>       CONTINUOUS STANDHYD         1.0 01: DESIRE           23.78     3.004 No_date    28:03    53.11  .600     .000
16860>             {XIMP= .25: TIMP= .25}
16861>             {LOSS= 2 : CN= 77.0}
16862>             {Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40.: MNP=.250: SCP=    .0}
16863>             {Impervious    area: IAimp= 1.57: SLPI=1.00: LGI= 400.: MNI=.013: SCI=    .0}
16864>             {IaRECmp=    4.00: IaRECper=    4.00}
16865>             {SMN= 31.15:  SMX=207.66:  SK= .010}
16866> #*******************************************************************************
16867> #     Catchment JOCKVA
16868> #     - To Jockvale SWM Facility
16869> #     - Residential development & golf course
16870> #     - JFSA 2021-01-11 update JOCKVA after updating CORRIG as per IBI GROUP, July 2008.
16871> #       JOCKVA area became 225.13 ha instead of 257.63 ha. JOCKVA separated into two areas JOCKVA and EX-LAND 32.5 ha as
16872> #*******************************************************************************
16873> R0100: C00430------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16874>       CONTINUOUS STANDHYD         1.0 01: JOCKVA         225.13    28.623 No_date    28:07    62.70  .708     .000
16875>             {XIMP= .50: TIMP= .50}
16876>             {LOSS= 2 : CN= 74.0}
16877>             {Pervious      area: IAper= 4.67: SLPP=1.00: LGP=  40.: MNP=.250: SCP=    .0}
16878>             {Impervious    area: IAimp= 1.57: SLPI=1.00: LGI=1311.: MNI=.013: SCI=    .0}
16879>             {IaRECmp=    4.00: IaRECper=    4.00}
16880>             {SMN= 36.67:  SMX=244.49:  SK= .010}
16881> R0100: C00431------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16882>       ADD HYD                     1.0 02: EX-LAND-MN        30.73     2.275 No_date    27:48    62.82  n/a      .000
16883>                           +       1.0 02: JOCKVA         225.13    28.623 No_date    28:07    62.70  n/a      .000
16884>                           +       1.0 02: B2-MI              .36      .820 No_date    28:05    62.88  n/a      .000
16885>                           +       1.0 02: B3-MI              .19      .402 No_date    28:04    62.88  n/a      .000
16886>                      SUM=         1.0 01: JOCKVA-TO      256.41    31.850 No_date    28:06    62.71  n/a      .000
16887> R0100: C00432------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16888>       SAVE HYD                    1.0 01: JOCKVA-TO      256.41    31.850 No_date    28:06    62.71  n/a      .000
16889>            fname: JOCKVA-TO.0100
16890>            remark: Total Flows at KB first pond
16891> #*******************************************************************************
16892> #     Jockvale SWM Facility
16893> #     - Rating curve obtained from Jockvale Servicing Study (CCL 1999)
16894> #*******************************************************************************
16895> R0100: C00433------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16896>       ROUTE RESERVOIR ->          1.0 01: JOCKVA-TO      256.41    31.850 No_date    28:06    62.71  n/a      .000
16897>                    out <=         1.0 01: JOCK_P         256.41    12.850 No_date    28:35    62.71  n/a      .000
16898>                overflow <=        1.0 03: JO-OVF             .00       .000 No_date    0:00      .00  n/a      .000
16899>         {MkStOked=.6430E+01   m3,  TotOvfVol=.0000E+00   m3,  N-Ovf=     0,  TotDurOvf=     0.hrs}
16900> R0100: C00434------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16901>       ADD HYD                     1.0 02: N_DE          55196.05   146.071 No_date    37:13    39.51  n/a      .000
16902>                           +       1.0 02: DESIRE           23.78     3.004 No_date    28:03    53.11  n/a      .000
16903>                           +       1.0 02: JO-OVF             .00       .000 No_date    0:00      .00  n/a      .000
16904>                           +       1.0 02: JOCK_P         256.41    12.850 No_date    28:35    62.71  n/a      .000
16905>                      SUM=         1.0 01: SN_DE         55476.25   147.027 No_date    37:12    39.63  n/a      .000
16906> R0100: C00435------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16907>       SAVE HYD                    1.0 01: SN_DE         55476.25   147.027 No_date    37:12    39.63  n/a      .000
16908>            fname: SN_DE.0100
16909>            remark: Total Flows at Heart's Desire
16910> #
16911> # Hydrograph from Heart's Desire routed to Rideau River
16912> # Channel X-Section obtained from RVCA Hydraulic Model - Station 0
16913> #
16914> R0100: C00436------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16915>       ROUTE CHANNEL     ->        1.0 02: SN_DE         55476.25   147.027 No_date    37:12    39.63  n/a      .000
16916>          {RDT= 1.00} out<-         1.0 01: NI            55476.25   147.014 No_date    37:15    39.63  n/a      .000
16917>             {L/S/n= 563./ .967/ .045}
16918>             {Vmx= 2.219: Dmx= 1.328}
16919> #*******************************************************************************
16920> #     Catchment S-2
16921> #     - To Jock River (north and south)
16922> #     - Undeveloped floodplain and river
16923> #*******************************************************************************
16924> R0100: C00437------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16925>       CONTINUOUS NASHYD           1.0 01: S-2            102.94     5.685 No_date    28:20    40.95  .462     .000
16926>             {CN= 72.0:  N= 3.00:  Tp=   .40}
16927>             {IaREC= 4.00:  SMN= 39.75:  SMX=264.99:  SK= .010}
16928>             {InterEventTime=  12.00}
16929> R0100: C00438------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16930>       ADD HYD                     1.0 02: NI            55476.25   147.014 No_date    37:15    39.63  n/a      .000
16931>                           +       1.0 02: S-2              102.94     5.685 No_date    28:20    40.95  .462     .000
16932>                      SUM=         1.0 01: SN_NI         55579.19   147.276 No_date    37:15    39.63  n/a      .000
16933> R0100: C00439------------DTmin-ID: NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm R.C.----DWFcms
16934>       SAVE HYD                    1.0 01: SN_NI         55579.19   147.276 No_date    37:15    39.63  n/a      .000
16935>            fname: SN_NI.0100
16936>            remark: Total Flows at Rideau River
16937> ##############################################################################################
16938> R0100: C00002------------------------------------------------------------------------------------------------
16939>       FINISH
16940> ------------------------------------------------------------------------------------------------
16941> ************************************************************************************************
16942>       WARNINGS / ERRORS / NOTES
16943>       -------------------------
16944> R0002: C00319   ROUTE RESERVOIR
16945> *** WARNING  Inflow peak was not reduced! Check OUTFLOW STORAGE table or reduce DT.
16946> R0002: C00341   ROUTE PIPE      ->
16947> *** WARNING  New pipe size used for routing.
16948> R0002: C00347   ROUTE PIPE      ->
16949> *** WARNING  New pipe size used for routing.
16950> R0002: C00380   DIVERT HYD      ->
16951> *** NOTE: Inflow hyd. is dry and cannot be diverted.
16952> R0002: C00400   ROUTE PIPE      ->
16953> *** WARNING  New pipe size used for routing.
16954> R0002: C00407   ROUTE PIPE      ->
16955> *** WARNING  New pipe size used for routing.
16956> R0002: C00408   ROUTE PIPE      ->
16957> *** WARNING  New pipe size used for routing.
16958> R0002: C00416   ROUTE PIPE      ->
16959> *** WARNING  New pipe size used for routing.
16960> R0002: C00417   ROUTE PIPE      ->
16961> *** WARNING  New pipe size used for routing.
16962> R0005: C00319   ROUTE RESERVOIR
16963> *** WARNING  Inflow peak was not reduced! Check OUTFLOW STORAGE table or reduce DT.
16964> R0005: C00341   ROUTE PIPE      ->
16965> *** WARNING  New pipe size used for routing.
16966> R0005: C00347   ROUTE PIPE      ->
16967> *** WARNING  New pipe size used for routing.
16968> R0005: C00363   ROUTE PIPE      ->
16969> *** WARNING  New pipe size used for routing.
16970> R0005: C00364   ROUTE PIPE      ->
16971> *** WARNING  New pipe size used for routing.
16972> R0005: C00372   ROUTE PIPE      ->
16973> *** WARNING  New pipe size used for routing.
16974> R0005: C00380   DIVERT HYD      ->
16975> *** NOTE: Inflow hyd. is dry and cannot be diverted.
16976> R0005: C00395   ROUTE PIPE      ->
16977> *** WARNING  New pipe size used for routing.
16978> R0005: C00400   ROUTE PIPE      ->
16979> *** WARNING  New pipe size used for routing.
16980> R0005: C00407   ROUTE PIPE      ->
16981> *** WARNING  New pipe size used for routing.
16982> R0005: C00408   ROUTE PIPE      ->
16983> *** WARNING  New pipe size used for routing.
16984> R0005: C00416   ROUTE PIPE      ->
16985> *** WARNING  New pipe size used for routing.
16986> R0005: C00417   ROUTE PIPE      ->
16987> *** WARNING  New pipe size used for routing.
16988> R0010: C00341   ROUTE PIPE      ->
16989> *** WARNING  New pipe size used for routing.
16990> R0010: C00347   ROUTE PIPE      ->
16991> *** WARNING  New pipe size used for routing.
16992> R0010: C00363   ROUTE PIPE      ->
16993> *** WARNING  New pipe size used for routing.
16994> R0010: C00364   ROUTE PIPE      ->
16995> *** WARNING  New pipe size used for routing.
16996> R0010: C00372   ROUTE PIPE      ->
16997> *** WARNING  New pipe size used for routing.
16998> R0010: C00380   DIVERT HYD      ->
16999> *** NOTE: Inflow hyd. is dry and cannot be diverted.
17000> R0010: C00395   ROUTE PIPE      ->
17001> *** WARNING  New pipe size used for routing.
17002> R0010: C00400   ROUTE PIPE      ->
17003> *** WARNING  New pipe size used for routing.
17004> R0010: C00407   ROUTE PIPE      ->
17005> *** WARNING  New pipe size used for routing.
17006> R0010: C00408   ROUTE PIPE      ->
17007> *** WARNING  New pipe size used for routing.
17008> R0010: C00416   ROUTE PIPE      ->
17009> *** WARNING  New pipe size used for routing.
17010> R0010: C00417   ROUTE PIPE      ->
17011> *** WARNING  New pipe size used for routing.
17012> R0025: C00341   ROUTE PIPE      ->
17013> *** WARNING  New pipe size used for routing.
17014> R0025: C00347   ROUTE PIPE      ->
17015> *** WARNING  New pipe size used for routing.
17016> R0025: C00363   ROUTE PIPE      ->
17017> *** WARNING  New pipe size used for routing.
17018> R0025: C00364   ROUTE PIPE      ->
17019> *** WARNING  New pipe size used for routing.
17020> R0025: C00372   ROUTE PIPE      ->
17021> *** WARNING  New pipe size used for routing.
17022> R0025: C00380   DIVERT HYD      ->
17023> *** NOTE: Inflow hyd. is dry and cannot be diverted.
17024> R0025: C00395   ROUTE PIPE      ->
17025> *** WARNING  New pipe size used for routing.
17026> R0025: C00400   ROUTE PIPE      ->
17027> *** WARNING  New pipe size used for routing.
17028> R0025: C00407   ROUTE PIPE      ->
17029> *** WARNING  New pipe size used for routing.
17030> R0025: C00408   ROUTE PIPE      ->
17031> *** WARNING  New pipe size used for routing.
17032> R0025: C00416   ROUTE PIPE      ->
17033> *** WARNING  New pipe size used for routing.
17034> R0025: C00417   ROUTE PIPE      ->
17035> *** WARNING  New pipe size used for routing.
17036> R0050: C00341   ROUTE PIPE      ->
17037> *** WARNING  New pipe size used for routing.
17038> R0050: C00347   ROUTE PIPE      ->
17039> *** WARNING  New pipe size used for routing.
17040> R0050: C00363   ROUTE PIPE      ->
17041> *** WARNING  New pipe size used for routing.
17042> R0050: C00364   ROUTE PIPE      ->
17043> *** WARNING  New pipe size used for routing.
17044> R0050: C00372   ROUTE PIPE      ->
17045> *** WARNING  New pipe size used for routing.
17046> R0050: C00380   DIVERT HYD      ->
17047> *** NOTE: Inflow hyd. is dry and cannot be diverted.
17048> R0050: C00395   ROUTE PIPE      ->
17049> *** WARNING  New pipe size used for routing.
17050> R0050: C00400   ROUTE PIPE      ->
17051> *** WARNING  New pipe size used for routing.
17052> R0050: C00407   ROUTE PIPE      ->
17053> *** WARNING  New pipe size used for routing.
17054> R0050: C00408   ROUTE PIPE      ->
17055> *** WARNING  New pipe size used for routing.
17056> R0050: C00416   ROUTE PIPE      ->
17057> *** WARNING  New pipe size used for routing.
17058> R0050: C00417   ROUTE PIPE      ->
17059> *** WARNING  New pipe size used for routing.
17060> R0100: C00341   ROUTE PIPE      ->
17061> *** WARNING  New pipe size used for routing.
17062> R0100: C00347   ROUTE PIPE      ->
17063> *** WARNING  New pipe size used for routing.
17064> R0100: C00363   ROUTE PIPE      ->
17065> *** WARNING  New pipe size used for routing.
17066> R0100: C00364   ROUTE PIPE      ->
17067> *** WARNING  New pipe size used for routing.
17068> R0100: C00372   ROUTE PIPE      ->
17069> *** WARNING  New pipe size used for routing.
17070> R0100: C00380   DIVERT HYD      ->
17071> *** NOTE: Inflow hyd. is dry and cannot be diverted.
17072> R0100: C00395   ROUTE PIPE      ->
17073> *** WARNING  New pipe size used for routing.
17074> R0100: C00400   ROUTE PIPE      ->
17075> *** WARNING  New pipe size used for routing.
17076> R0100: C00407   ROUTE PIPE      ->
17077> *** WARNING  New pipe size used for routing.
17078> R0100: C00408   ROUTE PIPE      ->
17079> *** WARNING  New pipe size used for routing.
17080> R0100: C00416   ROUTE PIPE      ->
17081> *** WARNING  New pipe size used for routing.
17082> R0100: C00417   ROUTE PIPE      ->
17083> *** WARNING  New pipe size used for routing.
17084>    Simulation ended on 2021-03-04      at 12:01:23
17085> ================================================================================================
17086>
17087>
```

Ottawa. ON
Paris. ON
Gatineau. QC
Montréal. QC
Québec. QC

Attachment F

Updated Subcatchment Schematics & Tables



Ref.	Name	HAMMOND ID	Area (ha)	Treatment (Water Quality/Quantity)	CN	TP (lb.)	Length (m)	T. Hopkins, TP (lbs)	RNFF	Type	Major System To	Minor System To	Figure	Table	Schematic
0	SW_1		3057.14												
1	SW_1a	SW_1a	536.42	W/O QC	72	2.79		12.781		NASHYD	Jock River at Station 7265				
2	O'Keeffe	O-*	494.75	W/ QC				0.575		STANDHYD	Jock River at Station 8255		Figure F1 - O'Keeffe Sub-catchments	Table F1 - O'Keeffe Sub-catchments	Schematic F1 - O'Keeffe Sub-catchments
3	FOSTER	FOSTER	316.62	W/O QC	74		1472.936	0.55	0.55	STANDHYD	Jock River at Station 8056		Figure F2 - Foster Sub-catchment	Table F2 - Foster Sub-catchment	
4	S_1	S-1-*	276.4	W/ QC				0.446		STANDHYD	Jock River at Station 5801		Figure 4A - S-1 & Fraser Sub-catchments Figure 4B - S-1 & Fraser Sub-catchments	Table 4A - S-1 & Fraser Sub-catchments Table 4B - S-1 & Fraser Sub-catchments	
5	Clarke	W_CLAR_*	121.18	W/O QC				0.41		STANDHYD	Jock River at Station 3052				
6	Brazeau	W_CLAR_BRAZ	73.29	W/ QC	75		899	0.05	0.6	STANDHYD	Jock River at Station 8056		Figure F3 - Clarke & Brazeau Sub-catchments	Table F3-1 - Clarke Sub-catchments Figure F3-2 - Brazeau Sub-catchment	
7	Clarke Undeveloped	W_CLAR_UNDE	35.65	W/O QC	77	1.18		[1.1]		NASHYD	Jock River at Station 9082				
8	Kennedy Burnett	KB-*	257.02	W/O QC				0.357		STANDHYD	Jock River at Station 3033				
9	FC-01	FC-01	8.03				201.373	0.47	0.47	STANDHYD	Jock River at Station 3035				
10	FC-02	FC-02	16.05				327.109	0.93	0.93	STANDHYD	Jock River at Station 3023		Figure F4 - Kennedy Burnett Sub-catchments	Table F4 - Kennedy Burnett Sub-catchments	
11	FC-03	FC-03	7.37				221.84	0.84	0.84	STANDHYD	Jock River at Station 3033				
12	FC-04	FC-04	12.87				252.318	0.84	0.84	STANDHYD	Jock River at Station 3035				
13	JR-01	JR-01	8.24				254.379	0.64	0.64	STANDHYD	Jock River at Station 3033				
14	JR-02	JR-02	1.59				102.958	0.84	0.84	STANDHYD	Jock River at Station 3033				
15	FRASER	FRASER	35.26		80	1.1	886.84	0.505	0.505	STANDHYD	Jock River at Station 3033		Figure 4A - S-1 & Fraser Sub-catchments Figure 4B - S-1 & Fraser Sub-catchments	Table 4A - S-1 & Fraser Sub-catchments Table 4B - S-1 & Fraser Sub-catchments	
16	Greenbank	Greenbank	36.59	W/O QC	77		491.94	0.402	0.439	STANDHYD	Jock River at Station 3462				
17	Todd	TODD_*	148.41	W/O QC				0.55		STANDHYD	Jock River at Station 3462		Figure F5 - Todd Sub-catchments	Table F5 - Todd Sub-catchments	
18	Corrigan	Ant & Bill	150.94	W/O QC				0.541		STANDHYD	Jock River at Station 3462		Figure F6 - Corrigan Sub-catchments	Table F6 - Corrigan Sub-catchments	
19	Corrigan External	EX-LAND	32.54		74		485.475	0.5	0.5	STANDHYD	Jock River at Station 3462				
20	Chapman Mills	MILLS	176.01		74		1118.120	0.18	0.18	STANDHYD	Jock River at Station 909				
21	Heart's Desire	DESIRE	23.78		77		400	0.25	0.25	STANDHYD	Jock River at Station 0				
22	Jockvale	JOCKVA	225.1		70		1310.55	0.5	0.5	STANDHYD	Jock River at Station 0				
23	S_2	S-2	103.04		70	0.68		[0.6]		NASHYD	Rideau River				
	Total		3057.14												

Legend

Sub-catchments

SW_1

Channel Cross Section

SWMF Drains

SWMF ponds

Approved Developments

Additional Future Developments

Google Hybrid

File name:

Figure 3 - Overall Jock River Lower Reach one Sub-catchments.pdf

XS 4534 — Cross Section at station 4534

SW_1a
536.42 ha
Ref. 1

Area ID
Area (ha)
Reference Number

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DSEL
david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

TITLE :

Figure 3 - Overall Jock River Lower Reach one Sub-catchments

Table 3 - Overall Jock River Lower Reach one Sub-catchments

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Ref.	Name	SWMHYMO ID	Area (ha)	Treatment (Water Quality/Quantity)	CN	TP (hr.)	Length-LGI (m)	T. Imperv. [TP (hr)]	XIMP	Type	Major System To	Minor System To	Figure	Table	Schematic
0	SW_1		3097.14												
1	SW_1a	SW_1a	536.42	W/O QC	72	2.79		[2.79]		NASHYD	Jock River at Station 7245				
2	O'Keefe	O-*	494.75	W/ QC				0.575		STANDHYD	Jock River at Station 6215		Figure F1 - O'Keefe Sub-catchments	Table F1 - O'Keefe Sub-catchments	Schematic F1 - O'Keefe Sub-catchments
3	FOSTER	FOSTER	316.62	W/O QC	74		1472.956	0.55	0.55	STANDHYD	Jock River at Station 6016		Figure F2 - Foster Sub-catchment	Table F2 - Foster Sub-catchment	
4	S_1	S-1-*	276.4	W/ QC				0.646		STANDHYD	Jock River at Station 5002		Figure 4A - S-1 & Fraser Sub-catchments Figure 4B - S-1 & Fraser Sub-catchments	Table 4A - S-1 & Fraser Sub-catchments Table 4B - S-1 & Fraser Sub-catchments	
5	Clarke	W_CLAR_*	121.18	W/O QC				0.61		STANDHYD	Jock River at Station 5002		Figure F3 - Clarke & Brazeau Sub-catchments	Table F3-1 - Clarke Sub-catchments Figure F3-2 - Brazeau Sub-catchment	
6	Brazeau	W_CLAR_BRAZ	73.29	W/ QC	75		699	0.65	0.6	STANDHYD	Jock River at Station 6016				
7	Clarke Undeveloped	W_CLAR_UNDE	35.65	W/O QC	77	1.10		[1.1]		NASHYD	Jock River at Station 5002				
8	Kennedy Burnett	KB-*	257.02	W/O QC				0.557		STANDHYD	Jock River at Station 3633		Figure F4 - Kennedy Burnett Sub-catchments	Table F4 - Kennedy Burnett Sub-catchments	
9	FC-01	FC-01	8.03				231.373	0.47	0.47	STANDHYD	Jock River at Station 3633				
10	FC-02	FC-02	16.05				327.109	0.93	0.93	STANDHYD	Jock River at Station 3633				
11	FC-03	FC-03	7.37				221.66	0.64	0.64	STANDHYD	Jock River at Station 3633				
12	FC-04	FC-04	12.87				292.916	0.64	0.64	STANDHYD	Jock River at Station 3633				
13	JR-01	JR-01	8.24				234.379	0.64	0.64	STANDHYD	Jock River at Station 3633				
14	JR-02	JR-02	1.59				102.956	0.64	0.64	STANDHYD	Jock River at Station 3633				
15	FRASER	FRASER	35.26		80	1.1	484.84	0.585	0.585	STANDHYD	Jock River at Station 3633		Figure 4A - S-1 & Fraser Sub-catchments Figure 4B - S-1 & Fraser Sub-catchments	Table 4A - S-1 & Fraser Sub-catchments Table 4B - S-1 & Fraser Sub-catchments	
16	Greenbank	Greenbank	36.59	W/O QC	77		493.96	0.682	0.639	STANDHYD	Jock River at Station 2462				
17	Todd	TODD_*	148.41	W/O QC				0.55		STANDHYD	Jock River at Station 2462		Figure F5 -Todd Sub-catchments	Table F5 -Todd Sub-catchments	
18	Corrigan	A# & B#	150.94	W/O QC				0.541		STANDHYD	Jock River at Station 2462		Figure F6 -Corrigan Sub-catchments	Table F6 -Corrigan Sub-catchments	
19	Corrigan External	EX-LAND	32.54		74		465.475	0.5	0.5	STANDHYD	Jock River at Station 2462				
20	Chapman Mills	MILLS	176.01		74		1118.123	0.38	0.38	STANDHYD	Jock River at Station 689				
21	Heart's Desire	DESIRE	23.78		77		400	0.25	0.25	STANDHYD	Jock River at Station 0				
22	Jockvale	JOCKVA	225.1		72		1310.55	0.5	0.5	STANDHYD	Jock River at Station 0				
23	S_2	S-2	103.04		72	0.40		[0.4]		NASHYD	Rideau River				
Total			3097.15												

Legend

Channel Cross Sections

S-1 Sub-catchments and Fraser Sub-catchments

- S-1 Sub-catchments
- FRASER-DRN
- FRASER-D

Google Hybrid

File name:

Figure 4A - S-1 & Fraser Clarke Sub-catchments.pdf

XS 3633 Cross Section at station 3633

S-1-A
90.84 ha
Ref. 1

- Area ID
- Area (ha)
- Reference Number

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PROJECT :

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TITLE :

Figure 4A - S-1 & Fraser Clarke Sub-catchments

Table 4A - S-1 & Fraser Clarke Sub-catchments

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Ref.	Name ID (S-1 is developed and Fraser is developed with DUALHYD)	Description	Area (ha)	Major System To	Minor System To	TP (hr) [TIMP]	Slope (%)		LGI (m)	CN	DUALHYD parameters		ROUTE CHANNEL (Station 5002)					
							SLPP (Pervious)	SLPI (Impervious)			Max Flow Rate(cms)-5-year inlet capture rate (24-hour SCS)	Major System storage (cu-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	S-1-A	will remain undeveloped	75.88	SN_FO (Total Flows at Foster Drain)		0.619				77			SN_CE = ["N_CE"(1) +"S-1-D4" +"S-1-D5" +"MS_P2"(2) +"P2-OVF"(2)]	"5737" (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 5737)	270	0.02593	-1060.52	94
2	S-1-B	will remain undeveloped	55.36	4241 (Total Flows before Station 4241		0.451				77							-268.6	91.5
3	S-1-D1	will be Developed	21.67	5002 (Total Flows before Station 5002		[0.65]	2	0.75	380.088	75							-259.43	91.5
4	S-1-D2	will be Developed	18.67	SN_OK (Total Flows at Okeefe Drain)		[0.65]	2	0.75	352.798	75							-179.48	91.5
5	S-1-D3	will be Developed	6.79	SN_OK (Total Flows at Okeefe Drain)		[0.65]	2	0.75	212.760	75							-67.9	91.5
6	S-1-D4	will be Developed	3.28	SN_CE (Total Flows before Station 5737		[0.65]	2	0.75	147.874	75							-59.21	91.5
7	S-1-D5	will be Developed	12.84	SN_CE (Total Flows before Station 5737		[0.65]	2	0.75	292.575	75							-33.19	91
8	S-1-D6	will be Developed	1.75	5002 (Total Flows before Station 5002		[0.65]	2	0.75	108.012	75							-26.08	90.5
9	S-1-D7	will be Developed	2.03	5002 (Total Flows before Station 5002		[0.65]	2	0.75	116.333	75							-24.04	90
10	S-1-D8	will be Developed	5.27	SN_FO (Total Flows at Foster Drain)		[0.65]	2	0.75	187.439								-13.14	86.77
11	S-1-FO-D1	was part of Foster (Developed)	5.11	520 (Total Flows at Sation 520 on Foster Drain)		[0.65]	0.5	0.5	184.572	74							0	85
12	S-1-FO-D2	was part of Foster (Developed)	4.94	980 (Total Flows at Station 980 on Foster Drain)		[0.55]	0.5	0.5	181.475	74							14.68	86.74
13	S-1-FO-F-D	was part of Foster (will be Developed in the Future)	14.96	SN_FO (Total Flows at Foster Drain)		[0.65]	0.5	0.5	315.806	74							23.92	90
14	S-1-Okeefe	was part of O'Keefe	44.93	SN_416 (Total Flows after Highway 416 and before XS Station 7245)		[0.65]	2	0.75	547.296	75							25.78 31.91 91.95 772.15 961.49 1044.69 1130.8	90.5 91 91.5 92 92.5 93 95
													5002= ["5737" +"S-1-D1" +"S-1-D6" +"S-1-D7"]	N_WC (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 5002)	736	0.09511	-601.81 -37.5 -19.61 0 14.87 37.5 38.54 42.23 157.05	91.5 90 87.04 85.7 86.93 90 90.5 91 91.5
													N_WC	N_KB (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 4534 (Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain))	1020	0.0498	-1082.01 -1028.17 -992.3 -279.34 -23.63 -13.45 -0.07 10.54 23.63 24.86 26.72 45.07 128.17 270.7 728.3	94 92.5 93.5 90 90 87.13 86.24 87.15 90 90.5 91 91.5 91.5 92.5 95
15	FRASER-D	Fraser Clarke Drain (will remain undeveloped)	21.61	4241 (Total Flows at Ken-Burnett Outlet and before XS Station 4241)		[0.585]	1	1	379.561	80	2.281	9999999 (an imaginary number so all water is kept Inside)						
													4241= ["KB-Pond3"(3) +"S-1-B" +"FRASER-DRN" +"FRASER-S" +"N_KB" +"FC-01-S"(4) +"FC-02-S"(5) +"FC-03-S"(6)]	4241-out (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 4241)	294	0.1088	-909.72 -907.09 -904.65 -902.26 -44.51 -25.1 -20.98 -20.61 -20.12 -6.13 17.51 31.37 45.26 50.41 63.06 134.5 190.63 251.98 321.32 403.84	95 94.5 94 93.5 91.5 91.5 91 90.5 90 87.26 86.56 87.2 90 90.5 91 91.5 92 92.5 93.5 95
16	FRASER-DRN	Fraser Clarke Developed Area	13.65	4241 (Total Flows at Ken-Burnett Outlet and before XS Station 4241)		0.4258				77								
													SN_KB= ["4241-out" +"FC-04-S"(7) +"JR-01-S"(8) +"JR-02-S"(9)]	N_TO (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 3633 (Hydrograph from Node Ken-Burnett to Node Todd))	608	0.24671	-29.24 -27.41 -25.64 -23.74 -22 -20 -19 -15 -10 -5 0 5 10 15 16 23.74 24.68 25.57 26.5	91 90.5 90 89.5 89.26 88.51 88.32 88.1 88.11 88.17 88.27 88.19 88.06 88.48 88.7 89.5 90 90.5 91

S-1 Total Area (ha)	197.6
FRASER Total Area (ha)	35.26

(1) N_CE is NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 6016 (Hydrograph from Node Foster routed to Node at Cedarview Road)

(2) "MS_P2" and "P2-OVF" are the outflow and the overflow from ROUTE RESERVOIR of the Clarke sub-catchment

(3) "KB-Pond3" =Total Flows at KB third pond

(4 & 5 & 6 & 7) "FC-01-S" & "FC-02-S" & "FC-03-S" & "FC-04-S" = Existing / Proposed Subcatchments To Fraser Clarke Drain as per NOVATECH Report June, 2020

(8 & 9) "JR-01-S" & "JR-02-S" = Proposed Subcatchments To Jock River as per NOVATECH Report June, 2020

Legend

Channel Cross Sections

S-1 Sub-catchments and Fraser Sub-catchments

- S-1 Sub-catchments
- FRASER-DRN
- FRASER-D

Google Hybrid

File name:

Figure 4B - S-1 & Fraser Clarke Sub-catchments.pdf

XS 3633 Cross Section at station 3633

S-1-A
90.84 ha
Ref. 1

- Area ID
- Area (ha)
- Reference Number

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PROJECT :

BCDC - Quantity Control Study

TITLE :

Figure 4B - S-1 & Fraser Clarke Sub-catchments

Table 4B - S-1 & Fraser Clarke Sub-catchments

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Ref.	Name ID (S-1 is developed with DUALHYD & ROUTE RESERVOIR and Fraser is developed with DUALHYD)	Description	Area (ha)	Major System To	Minor System To	TP (hr) [TIMP]	Slope (%)		LGI (m)	CN	DUALHYD parameters		ROUTE RESERVOIR					ROUTE CHANNEL (Station 5002)					
							SLPP (Pervious)	SLPI (Impervious)			Max Flow Rate(cms)- 5-year inlet capture rate (24-hour SCS)	Major System storage (cu-m)	NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	S-1-A	will remain undeveloped	75.88	SN_FO (Total Flows at Foster Drain)		0.619				77								SN_CE = ["N_CE"(1) +"S-1-D4R" +"S-1-D5R" +"S-1-D4Rovf" +"S-1-D5Rovf" +"MS_P2"(2)+" P2-OVF"(2)]	"5737" (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 5737)	270	0.02593	-1060.52	94
2	S-1-B	will remain undeveloped	55.36	4241 (Total Flows before Station 4241		0.451				77												-268.6	91.5
3	S-1-D1	will be Developed	21.67	5002 (Total Flows before Station 5002		[0.65]	2	0.75	380.088	75	2.409	9999999	S-1-D1S	S-1-D1R	S-1-D1Rovf	0.3033	1.0125					-259.43	91.5
4	S-1-D2	will be Developed	18.67	SN_OK (Total Flows at Okeefe Drain)		[0.65]	2	0.75	352.798	75	2.097	9999999	S-1-D2S	S-1-D2R	S-1-D2Rovf	0.2485	0.8297					-179.48	91.5
5	S-1-D3	will be Developed	6.79	SN_OK (Total Flows at Okeefe Drain)		[0.65]	2	0.75	212.760	75	0.831	9999999	S-1-D3S	S-1-D3R	S-1-D3Rovf	0.079	0.2639					-67.9	91.5
6	S-1-D4	will be Developed	3.28	SN_CE (Total Flows before Station 5737		[0.65]	2	0.75	147.874	75	0.421	9999999	S-1-D4S	S-1-D4R	S-1-D4Rovf	0.0392	0.1308					-59.21	91.5
7	S-1-D5	will be Developed	12.84	SN_CE (Total Flows before Station 5737		[0.65]	2	0.75	292.575	75	1.5	9999999	S-1-D5S	S-1-D5R	S-1-D5Rovf	0.1611	0.5377					-33.19	91
8	S-1-D6	will be Developed	1.75	5002 (Total Flows before Station 5002		[0.65]	2	0.75	108.012	75	0.232	9999999	S-1-D6S	S-1-D6R	S-1-D6Rovf	0.0222	0.0742					-26.08	90.5
9	S-1-D7	will be Developed	2.03	5002 (Total Flows before Station 5002		[0.65]	2	0.75	116.333	75	0.265	9999999	S-1-D7S	S-1-D7R	S-1-D7Rovf	0.2767	0.9238					-24.04	90
10	S-1-D8	will be Developed	5.27	SN_FO (Total Flows at Foster Drain)		[0.65]	2	0.75	187.439		0.672	9999999	S-1-D8S	S-1-D8R	S-1-D8Rovf	0.0630	0.2102					-13.14	86.77
11	S-1-FO-D1	was part of Foster (Developed)	5.11	520 (Total Flows at Sation 520 on Foster Drain)		[0.65]	0.5	0.5	184.572	74	0.605	9999999	S-1-FO-D1S	S-1-FO-D1R	S-1FOD1ovf	0.0693	0.2313					0	85
12	S-1-FO-D2	was part of Foster (Developed)	4.94	980 (Total Flows at Station 980 on Foster Drain)		[0.55]	0.5	0.5	181.475	74	0.508	9999999	S-1-FO-D2S	S-1-FO-D2R	S-1FOD2ovf	0.067	0.2236					14.68	86.74
13	S-1-FO-F-D	was part of Foster (will be Developed in the Future)	14.96	SN_FO (Total Flows at Foster Drain)		[0.65]	0.5	0.5	315.806	74	1.615	9999999	S-1FO-F-DS	S-1FO-F-DR	S-1FO-F-DR	0.2215	0.7396					23.92	90
14	S-1-Okeefe	was part of O'Keefe	44.93	SN_416 (Total Flows after Highway 416 and before XS Station 7245)		[0.65]	2	0.75	547.296	75	4.591	9999999	S-1-OkS	S-1-OkSR	S-1-OkSovf	0.639	2.1333	5002= ["5737" +"S-1-D1R" +"S-1-D6R" +"S-1-D7R" +"S-1-D1Rovf" +"S-1-D6Rovf" +"S-1-D7Rovf"]	N_WC (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 5002)	736	0.09511	-601.81 -37.5 -19.61 0 14.87 37.5 38.54 42.23 157.05	91.5 90 87.04 85.7 86.93 90 90.5 91 91.5
																		N_WC	N_KB (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 4534 (Hydrograph from Node West Clarke routed to Node at Kennedy - Burnett Drain))	1020	0.0498	-1082.01 -1028.17 -992.3 -279.34 -23.63 -13.45 -0.07 10.54 23.63 24.86 26.72 45.07 128.17 270.7 728.3	94 92.5 93.5 90 90 87.13 86.24 87.15 90 90.5 91 91.5 91.5 92.5 95
15	FRASER-D	Fraser Clarke Drain (will remain undeveloped)	21.61	4241 (Total Flows at Ken-Burnett Outlet and before XS Station 4241)		[0.585]	1	1	379.561	80	2.281	9999999 (an imaginary number so all water is kept Inside)						4241= ["KB-Pond3"(3) +"S-1-B" +"FRASER-DRN" +"FRASER-S" +"N_KB" +"FC-01-S"(4) +"FC-02-S"(5) +"FC-03-S"(6)]	4241-out (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 4241)	294	0.1088	-909.72 -907.09 -904.65 -902.26 -44.51 -25.1 -20.98 -20.61 -20.12 -6.13 17.51 31.37 45.26 50.41 63.06 134.5 190.63 251.98 321.32 403.84	95 94.5 94 93.5 91.5 91.5 91 90.5 90 87.26 86.56 87.2 90 90.5 91 91.5 92 92.5 93.5 95
16	FRASER-DRN	Fraser Clarke Developed Area	13.65	4241 (Total Flows at Ken-Burnett Outlet and before XS Station 4241)		0.4258				77								SN_KB= ["4241-out" +"FC-04-S"(7) +"JR-01-S"(8) +"JR-02-S"(9)]	N_TO (NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 3633 (Hydrograph from Node Ken-Burnett to Node Todd))	608	0.24671	-29.24 -27.41 -25.64 -23.74 -22 -20 -19 -15 -10 -5 0 5 10 15 16 23.74 24.68 25.57 26.5	91 90.5 90 89.5 89.26 88.51 88.32 88.1 88.11 88.17 88.27 88.19 88.06 88.48 88.7 89.5 90 90.5 91
S-1 Total Area (ha)			273.48																				
FRASER Total Area (ha)			35.26																				

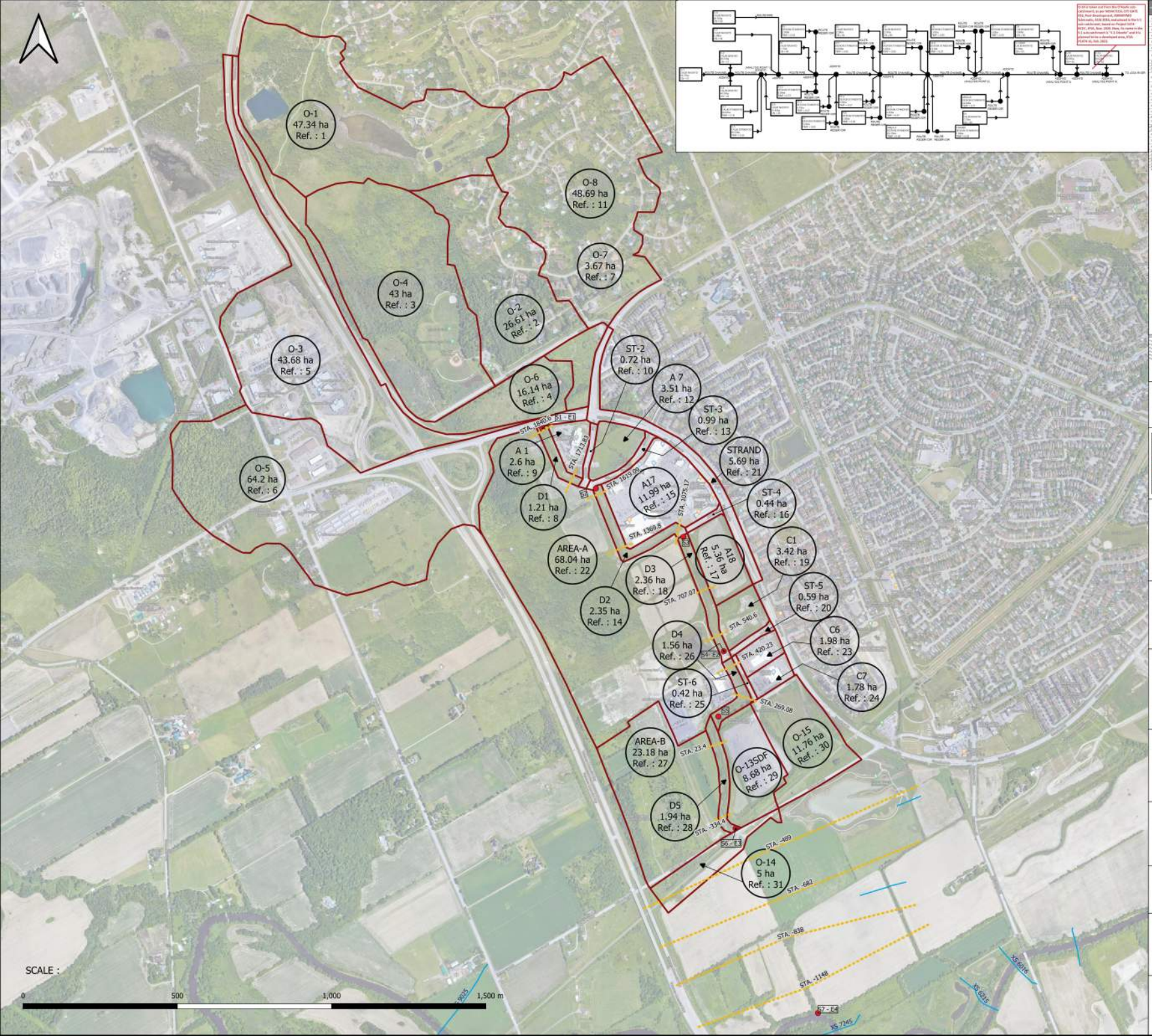
(1) N_CE is NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 6016 (Hydrograph from Node Foster routed to Node at Cedarview Road)

(2) "MS_P2" and "P2-OVF" are the outflow and the overflow from ROUTE RESERVOIR of the Clarke sub-catchment

(3) "KB-Pond3" =Total Flows at KB third pond

(4 & 5 & 6 & 7) "FC-01-S" & "FC-02-S" & "FC-03-S" & "FC-04-S" = Existing / Proposed Subcatchments To Fraser Clarke Drain as per NOVATECH Report June, 2020

(8 & 9) "JR-01-S" & "JR-02-S" = Proposed Subcatchments To Jock River as per NOVATECH Report June, 2020



File name:

Figure F1 - O'Keefe Sub-catchments.pdf

Legend

20210129-O'Keefe Sub-catchment Boundaries
O'Keefe Sub-catchment Boundaries
Google Hybrid
XS 7245 — Cross Section at station 7245

S1 - E1 — HYDROLOGIC MODELING (SWMHYMO) ANALYSIS POINT - ENVIRONMENTAL MANAGEMENET (EMP) ANALYSIS POINT

O-1
47.34 ha
Ref. : 1
→ Area ID
→ Area (ha)
→ Reference Number

STA. 1840.6 CROSS SECTION AND STATION

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DSEL
david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

TITLE : Figure F1 - O'Keefe Sub-catchments

Table F1 - O'Keefe Sub-catchments

Schematic F1 - O'Keefe Sub-catchments

PROJECT NO.	1474
DRAWN:	MM
DATE:	Mar. 2021

Ref.	ID O'Keefe	Area (ha) (from Novatech Report AUG2014)	Area (ha) (from GIS- JFSA P1474-16-QC,JAN2021)	Major System To	Minor System To	T. Imperv. [TP (hr)]	XIMP	CN	Slope (%)	ROUTE RESERVOIR					ROUTE CHANNEL [ROUTE PIPE]					
										NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	O-1	63.72	47.34	OKF-N (NORTH OF		[0.9]		61		A1	A1-STR	A1-OVF	0.035	0.038	O-1	O-1R	960	0.63	0	2
2	O-2	28.61	26.61	OKF-N (NORTH OF		[1.1]		57					0.072	0.051					4	0
3	O-4	46.94	43	OKF-N (NORTH OF		[0.9]		49					0.1	0.059					6	0
4	O-6	16.46	16.14	PT1[1](WEST OF THE		[0.7]		43					0.125	0.07					10	2
5	O-3	39.67	43.68	PT1[1](WEST OF THE		0.3	0.15	50	0.32				0.16	0.074	OKF-N = ["O-1R" + "O-2"+"O-4"]	OKF-NR	210	0.81	14.62	1.56
6	O-5	60.63	64.2	PT1[1](WEST OF THE		0.26	0.13	61	1.38				0.185	0.081					18.41	1.44
7	O-7	5.28	3.67	FF(TOTAL FLOW		[0.6]		54		ST-2	ST2STR	ST2OVF	0.052	0.001					22.43	0
8	D1	1.17	1.21	ST2-IN [2]		[0.28]		84					0.053	0.008					25.07	0.7
9	A1	2.5	2.6	ST2-IN [2]		0.85	0.68	Horton	0.5	A7	A7-STR	A7-OVF	0.049	0.054					29.1	1.79
10	ST-2	0.59	0.72	ST2-IN [2]		0.57	0.46	Horton	0.5				0.102	0.072					33.73	2.71
11	O-8	60.55	48.69	ST2-IN [2]		[1]		69					0.14	0.082					45.54	3.58
12	A7	3.51	3.51	PT2ST3(TOTAL FLOW		0.85	0.68	Horton	0.5				0.175	0.099	FF=["PT1[1]"+" O-7"]	DRAIN1	302	1	3.45	0.6
13	ST-3	0.71	0.99	PT2ST3(TOTAL FLOW		0.57	0.46	Horton	0.5				0.225	0.105					13.45	0.5
14	D2	2.28	2.35	PT3ST4 (TOTAL FLOW		[0.99]		84					0.26	0.114					14.45	0
15	A17	12.04	11.99	PT3ST4 (TOTAL FLOW		0.85	0.68	Horton	0.5	ST-3	ST3STR	ST3OVF	0.063	0.001					15.55	0
16	ST-4	0.35	0.44	PT3ST4 (TOTAL FLOW		0.57	0.46	Horton	0.5				0.064	0.0094					16.55	0.5
17	A18	5.3	5.36	PT3ST4 (TOTAL FLOW		0.85	0.68	Horton	0.5	A17	A17STR	A17OVF	0.169	0.185					26.55	0.6
18	D3	2.51	2.36	ST5-E [5]		[0.73]		86					0.349	0.248					30	1.7
19	C1	3.41	3.42	ST5-E [5]		0.85	0.68	Horton	0.5				0.482	0.283	[O-8]	[O8PIPE]	[335.1]	[0.1]	[Width= 1800 mm]	[Hight= 1200 mm]
20	ST-5	0.45	0.59	ST5-E [5]		0.57	0.46	Horton	0.5				0.602	0.338	PT2ST3= ["ST2-IN[2]" +"A7-STR" +"A7-OVF" +"ST3STR" +"ST3OVF"]	DRAIN2	592	0.23	2.6	0.95
21	STRAND	7.59	5.69	SSAOUT [4]		0.85	0.64	Horton	0.5				0.771	0.359					12.6	0.75
22	AREA-A	68.04	68.04	PT4ST5[3](TOTAL		0.8	0.64	Horton	0.5				0.891	0.391					14.1	0
23	C6	1.87	1.98	PT5ST6(TOTAL FLOW		0.85	0.68	Horton	0.5	ST-4	ST4STR	ST4OVF	0.031	0.001					15.9	0
24	C7	1.62	1.78	PT5ST6(TOTAL FLOW		0.85	0.68	Horton	0.5				0.032	0.005					17.4	0.75
25	ST-6	0.41	0.42	PT5ST6(TOTAL FLOW		0.57	0.46	Horton	0.5	A18	A18STR	A18OVF	0.074	0.082					27.4	0.95
26	D4	1.73	1.56	D4-EX		[0.60]		88					0.154	0.109					30	1.7
27	AREA-B	24.04	23.08	D4-EX		0.77	0.62	Horton	1.4				0.212	0.125	PT3ST4= ["DRAIN2"+"D 2"+ "A17STR"+ "A17OVF"+ "ST4STR"+ "ST4OVF"+ "A18STR"+ "A18OVF"]	DRAIN3	525	0.23	2.5	1
28	D5	1.9	1.93	PT6MC [6] (McKenna		[0.69]		86					0.265	0.149					12.5	0.8
29	O-13SDF	9.74	8.8	PT6MC [6] (McKenna		[0.43]		81					0.339	0.158					14.1	0
30	O-15	10.67	11.76	M-C		[0.30]		82					0.392	0.172					15.9	0
31	O-14	30.02	5	OKEEFE		[0.133]		82		C1	C1-STR	C1-OVF	0.048	0.052					17.5	0.8
													0.099	0.07					27.5	1
													0.136	0.08					30	1.7
													0.17	0.096						
													0.218	0.102						
													0.252	0.111	PT5ST6= ["PT4ST5[3]"+ "C6-STR"+ "C6-OVF"+ "C7-STR"+ "C7-OVF"+ "ST6STR"+ "ST6OVF"]	DRAIN4	324	0.1	2	1.2
										ST-5	ST5STR	ST5OVF	0.04	0.001					12	1
													0.041	0.0062					14	0
										STRAND	S-POND	S-OVF	0.033	0.188					16	0
													0.057	0.253					18	1
													0.104	0.287					28	1.2
													0.16	0.336					30	2
													0.34	0.346						
													0.471	0.36						
													0.824	0.39						
										Area-A	SWMF-A	SWMAOV	0.103	1.077	D4-EX= ["DRAIN4"+ "D4" + "SWMF-B"+ "SWMBOVF"]	DRAIN5	413	0.16	0	1.41
													0.128	1.749					6.13	0.97
													0.382	2.282					12.29	0.89
													0.703	2.582					15.71	0
													1.256	2.978					17.97	0.39
													1.567	3.202					23.04	0.35
													1.955	3.493					32.83	0.96
													2.1	3.6					32.84	2.5
										C6	C6-STR	C6-OVF	0.026	0.029	M-C= ["PT6MC[6]"+ "O-15"]	O-14Ch	845.3	0.1	0	1.53
													0.054	0.038					5.56	1.47
													0.075	0.044					9.21	1.45
													0.093	0.052					12.45	1.53
													0.12	0.056					13.7	1.5
													0.138	0.061					15	0.69
										C7	C7-STR	C7-OVF	0.023	0.025					15.34	0
													0.047	0.033					16.51	0.05
													0.065	0.038					17.3	0.17
													0.081	0.045					18.04	0.74
													0.104	0.048					19.29	1.32
													0.12	0.053					22.73	1.47
																			31.84	1.41
																			31.85	2.5
										ST-6	ST6STR	ST6OVF	0.036	0.001	**SN_OK** (Total Flows at Okeefe Drain)	**N_FO** is NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 6215 (Hydrograph from Node Okeefe routed to Node at Foster Drain)	1183	0.0761	-794.18	91
													0.037	0.0058					-775.41	91.5
										Area-B	SWMF-B	SWMBOVF	0.025	0.09					-702.63	91.5
													0.175	0.51					-546.19	91.5
													0.35	0.71					-529.54	91.5
													0.495	0.82					-323.44	91
													0.648	0.98					-320.71	91
													0.965	1.045					-183.59	91
													1.072	1.14					-182.54	90.5
										O-13SDF	SDF	OVFSDF	0.15	0.6					-181.36	90
													0.2	1.5					-177.37	90
																			-87.7	90
																			-33.89	90
																			-18.52	86.88
																			0	85.2
																			16.2	86.83
																			31.59	90
																			33.03	90.5
																			34.41	91
Total		514.31	458.91																	

[1] PT1=["OKF-NR"+"O-3"+"O-5"+"O-6"]

[2] ST2-IN=["DRAIN1"+"D1"+"A1-STR"+"A1-OVF"+"ST2STR"+"ST2OVF"+"O8PIPE"]

[3] PT4ST5=["SSAOUT[4]"+"SWMF-A"+"SWMAOV"]

[4] SSAOUT=["ST5-E[5]"+"S-POND"+"S-OVF"]

[5] ST5-E["DRAIN3"+"D3"+"C1-STR"+"C1-OVF"+"ST5STR"+"ST5OVF"]

[6] PT6MC=["DRAIN5"+"D5"+"SDF"]

Ref.	Name ID	Area (ha)	Major System To	Minor System To	T. Imperv.	XIMP	CN	LGI: Length (m) =SQRT (Area*10000/'L-S)	Slope (%)		ROUTE RESERVOIR					ROUTE CHANNEL (Station 6016)					
									SLPP (Pervious)	SLPI (Impervious)	NHYDm	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDm	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	FOSTER	325.44	FOSTER-OUT = ["P_FOS"+"FO-OVF"]		0.55	0.55	74	1472.954211	0.5	0.5	FOSTER	P_FOS	FO-OVF	10.34	10	5N_FO (Total Flows at Foster Drain)	N_CE	159	0.0818	-645.23 -391.2 -91 -85.52 -15.46 -9.79 -3.22 3.22 10.96 16.44 26.55 29.03 35.76 36.67 108.08 109.62 112.04 114.62 116.78	91.5 91.5 91.5 91.5 89.4 89.31 88.34 85.07 85.79 86.49 89.45 90.27 90.67 91 91 90.5 90.5 91 91.5

File name:

Figure F2 - Foster Sub-catchment.pdf

Legend
- Channel Cross Sections
- SWMF Drains
  - Foster Drain
- SWMF ponds
  - Foster Pond
- Foster Sub-catchment
  - FOSTER
- Google Hybrid

XS 6016 — Cross Section at station 6016

FOSTER 325.44 ha Ref. 1 — Area ID / Area (ha) / Reference Number

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david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

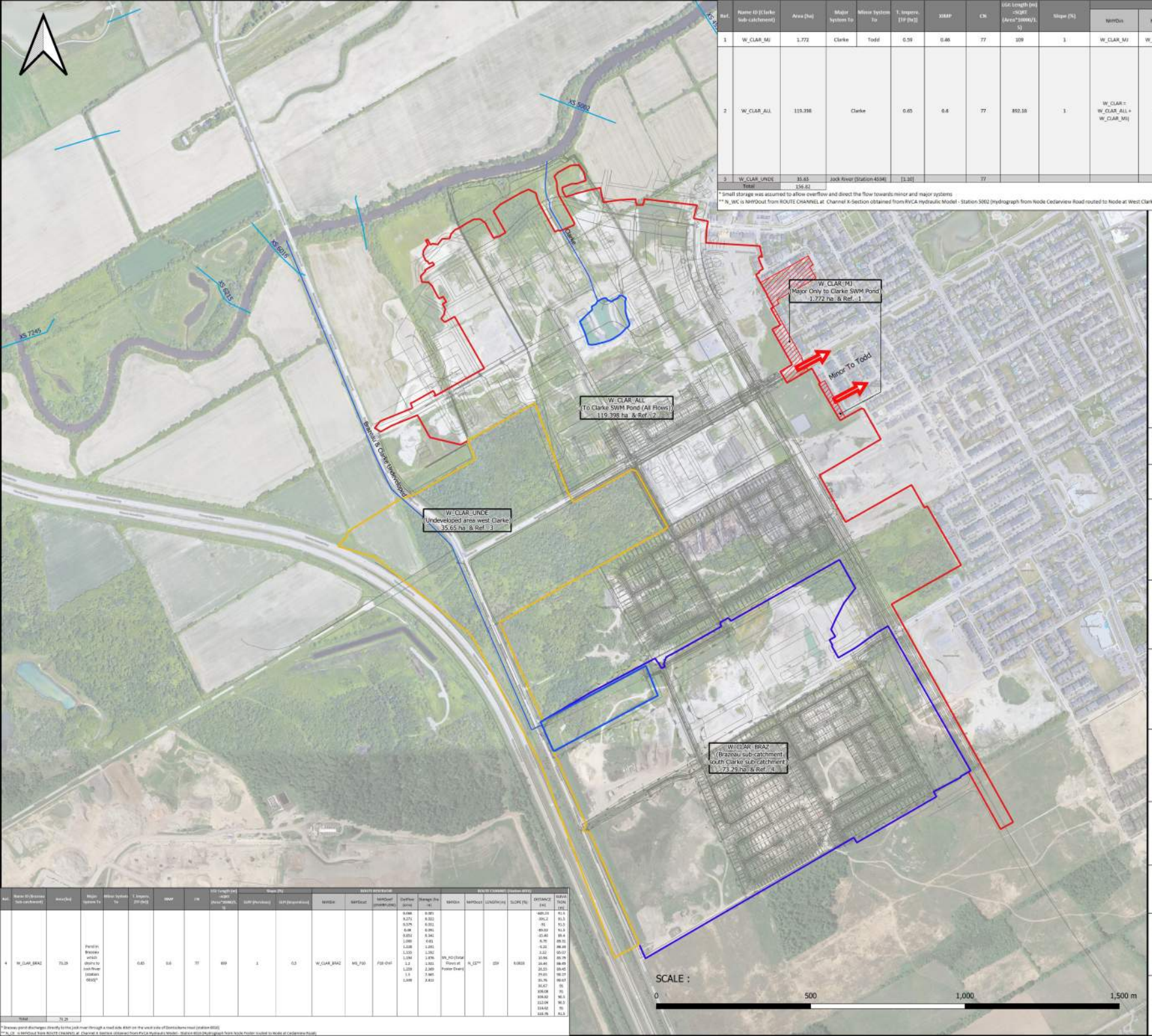
TITLE :

Figure F2 - Foster Sub-catchment

Table F2 - Foster Sub-catchment

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Ref.	Name ID	Area (ha)	Major System To	Minor System To	T. Imperv.	XIMP	CN	LGI: Length (m) =SQRT (Area*10000/1.5)	Slope (%)		ROUTE RESERVOIR					ROUTE CHANNEL (Station 6016)					
									SLPP (Pervious)	SLPI (Impervious)	NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	FOSTER	325.44	FOSTER-OUT = ["P_FOS"+"FO-OVF"]		0.55	0.55	74	1472.956211	0.5	0.5	FOSTER	P_FOS	FO-OVF	10.34	10	SN_FO (Total Flows at Foster Drain)	N_CE	159	0.0818	-645.23	91.5
																				-391.2	91.5
																				-91	91.5
																				-85.52	91.5
																				-15.46	89.4
																				-9.79	89.31
																				-3.22	86.24
																				3.22	85.07
																				10.96	85.79
																				16.44	86.49
																				26.55	89.45
																				29.03	90.27
																				35.76	90.67
																				36.67	91
																				108.08	91
																				109.82	90.5
																				112.04	90.5
																				114.62	91
																				116.76	91.5



Ref.	Name ID (Clarke Sub-catchment)	Area (ha)	Major System To	Minor System To	T. Imperv. (TP (hr))	10MP	CN	LGE Length (m) =(Q/(T (Area*1000)/3.5))	Slope (%)	ROUTE RESERVOIR NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha m)	ROUTE CHANNEL (Station 4534) NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	W_CLAR_MJ	1.772	Clarke	Todd	0.59	0.46	77	109	1	W_CLAR_MJ	W_CLAR_Min	W_CLAR_MJ)	0.213	0.0001*						
2	W_CLAR_ALL	119.398	Clarke		0.65	0.6	77	892.18	1	W_CLAR = W_CLAR_ALL + W_CLAR_MJ)	MS_P2	P2-OVF	0.128 0.138 0.148 0.227 0.354 0.505 0.666 0.831 0.993 1.069 1.51 4.904 13.048 23.745 36.474 45.598 61.652	0.161 0.409 0.68 0.951 1.223 1.52 1.821 2.123 2.434 2.583 2.647 2.861 3.188 3.523 3.871 4.127 4.599	N_WC**	N_KB	1020	0.0498	-1082.01 -1028.17 -992.1 -279.34 -23.63 -13.45 -0.07 10.54 23.63 24.86 26.72 45.07 128.17 270.7 728.3	94 92.5 93.5 90 90 87.13 86.24 87.13 90 90.5 91 91.5 91.5 92.5 93
3	W_CLAR_UNDE	35.65	Jock River (Station 4534)		[1.10]		77													
	Total	156.82																		

* Small storage was assumed to allow overflow and direct the flow towards minor and major systems

** N_WC is NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 5002 (Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain)

Legend

- Channel Cross Sections
- SWMF Drains
  - Brazeau & Clarke Undeveloped
  - Clarke
- SWMF ponds
  - West Clarke
  - Brazeau
- Clarke Sub-catchment & Brazeau Sub-catchment
  - W_CLAR_MJ
  - W_CLAR_MJ (Major Only to Clarke SWM Pond)
  - W_CLAR_ALL
  - W_CLAR_BRAZ
  - W_CLAR_UNDE
  - Clarke-Brazeau-CAD
- Google Hybrid

File name:

Figure F3 - Clarke & Brazeau Sub-catchments.pdf

XS 4534 Cross Section at station 4534

Minor System

W_CLAR_MJ
(Major Only to Clarke SWM Pond)
1.772 ha & Ref. 1

- Area ID
- Reference Number
- Area (ha)

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david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

TITLE : Figure F3 - Clarke & Brazeau Sub-catchments

Table F3-1 - Clarke Sub-catchments

Figure F3-2 - Brazeau Sub-catchment

PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Ref.	Name ID (Brazeau Sub-catchment)	Area (ha)	Major System To	Minor System To	T. Imperv. (TP (hr))	10MP	CN	LGE Length (m) =(Q/(T (Area*1000)/3.5))	Slope (%)	ROUTE RESERVOIR NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha m)	ROUTE CHANNEL (Station 4534) NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
4	W_CLAR_BRAZ	73.29	Pond in Brazeau which discharges to Jock River (station 6010)*		0.65	0.6	77	669	1 1.5	0.3	W_CLAR_BRAZ	MS_P10 P10-OVF	P10-OVF	0.098 0.271 0.579 0.68 0.852 1.088 1.128 1.155 1.194 1.2 1.208 1.5 1.648	0.181 0.322 0.551 0.091 0.341 0.81 1.291 1.392 1.876 1.921 2.369 2.585 2.811	MS_P2 (Total Flows at Foster Drain)	N_QS**	QSV	0.0818	-685.23 -395.2 -91 -83.02 -15.46 6.79 9.23 9.22 10.66 16.44 25.55 29.65 31.76 35.67 108.08 109.92 112.04 114.02 116.78	91.6 91.5 91.3 91.3 89.4 89.91 88.88 90.07 89.79 88.89 89.42 90.27 90.67 91 91 90.5 90.3 91 91.3
Total		73.29																		

* Brazeau pond discharges directly to the Jock river through a road side ditch on the west side of Dominiontone road (station 6010).

** N_QS is NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 6010 (Hydrograph from Node Foster routed to Node at Cedarview Road)

Ref.	Name ID (Clarke Sub-catchment)	Area (ha)	Major System To	Minor System To	T. Imperv. [TP (hr)]	XIMP	CN	LGI: Length (m) =SQRT (Area*10000/1.5)	Slope (%)	ROUTE RESERVOIR					ROUTE CHANNEL (Station 4534)					
										NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	W_CLAR_MJ	1.772	Clarke	Todd	0.59	0.46	77	109	1	W_CLAR_MJ	W_CLAR_MJn	W_CLAR_MJj	0.213	0.0001*						
2	W_CLAR_ALL	119.398	Clarke		0.65	0.6	77	892.18	1	W_CLAR = W_CLAR_ALL + W_CLAR_MJj	MS_P2	P2-OVF	0.128	0.161						
													0.138	0.409	N_WC**	N_KB	1020	0.0498	-1082.01	94
													0.148	0.68					-1028.17	92.5
													0.227	0.931					-992.3	93.5
													0.354	1.223					-279.34	90
													0.505	1.52					-23.63	90
													0.666	1.821					-13.45	87.13
													0.831	2.123					-0.07	86.24
													0.995	2.434					10.54	87.15
													1.069	2.583					23.63	90
													1.51	2.647					24.86	90.5
													4.904	2.861					26.72	91
													13.048	3.188					45.07	91.5
													23.745	3.523					128.17	91.5
													36.474	3.871					270.7	92.5
													45.938	4.127					728.3	95
													61.652	4.539						
3	W_CLAR_UNDE	35.65	Jock River (Station		[1.10]		77													
Total		156.82																		

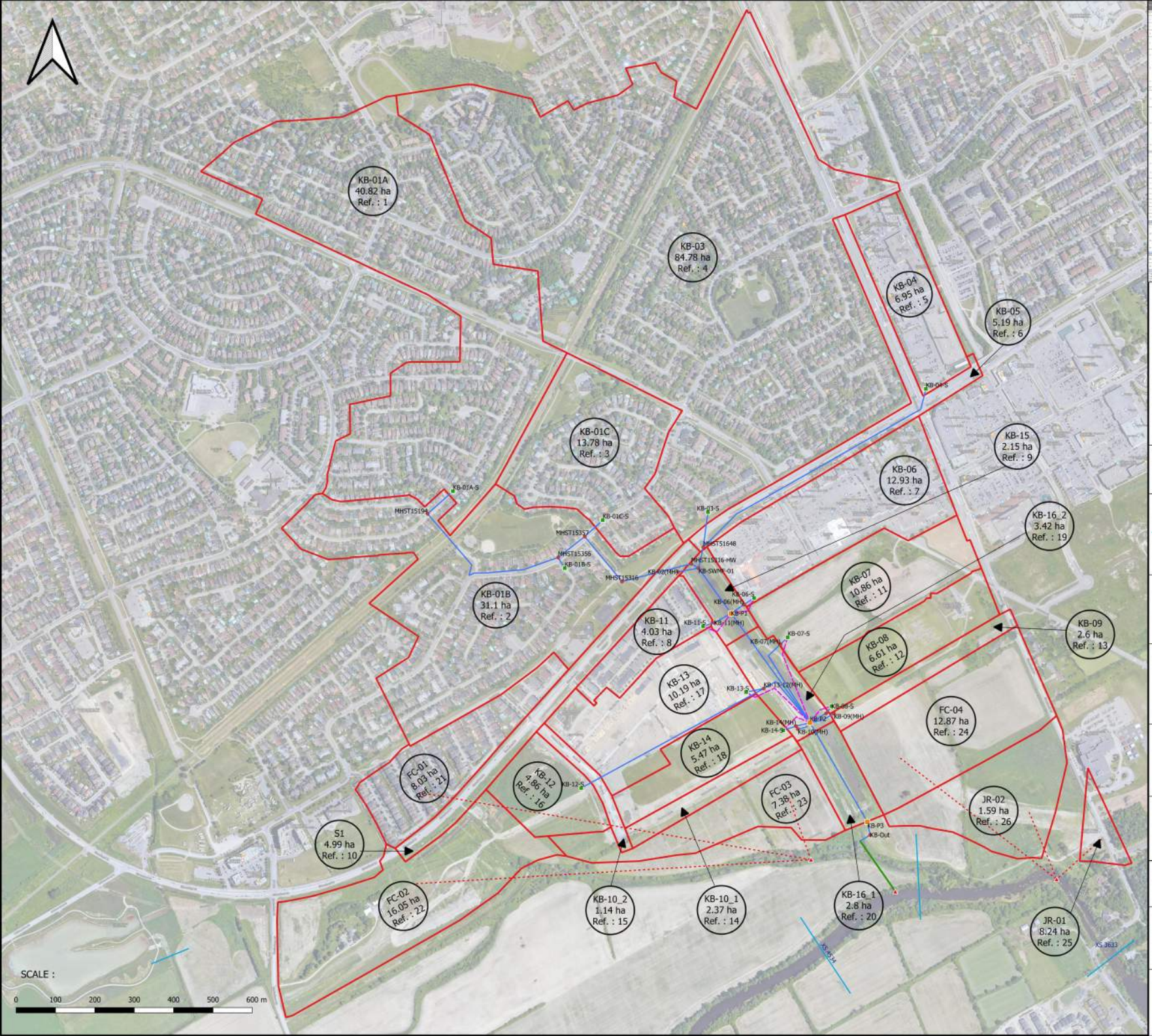
* Small storage was assumed to allow overflow and direct the flow towards minor and major systems

** N_WC is NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 5002 (Hydrograph from Node Cedarview Road routed to Node at West Clarke Drain)

Ref.	ID (Brazeau Sub-catchment)	Area (ha)	Major System To	Minor System To	T. Imperv. [TP (hr)]	XIMP	CN	LGI: Length (m) =SQRT (Area*10000/ 1.5)	Slope (%)		ROUTE RESERVOIR					ROUTE CHANNEL (Station 6016)					
									SLPP (Pervious)	SLPI (Impervious)	NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
4	W_CLAR_BRAZ	73.29	Pond in Brazeau which drains to Jock River (station 6016)*		0.65	0.6	77	699	1	0.5	W_CLAR_BRAZ	MS_P10	P10-OVF	0.068 0.271 0.379 0.48 0.853 1.005 1.128 1.155 1.194 1.2 1.259 1.3 1.349	0.001 0.022 0.051 0.091 0.341 0.61 1.231 1.592 1.876 1.921 2.369 2.665 2.813	SN_FO (Total Flows at Foster Drain)	N_CE**	159	0.0818	-645.23 -391.2 -91 -85.52 -15.46 -9.79 -3.22 3.22 10.96 16.44 26.55 29.03 35.76 36.67 108.08 109.82 112.04 114.62 116.76	91.5 91.5 91.5 91.5 89.4 89.31 86.24 85.07 85.79 86.49 89.45 90.27 90.67 91 91 90.5 90.5 91 91.5
Total		73.29																			

* Brazeau pond discharges directly to the jock river through a road side ditch on the west side of Borrisokane road (station 6016)

** N_CE is NHYDout from ROUTE CHANNEL at Channel X-Section obtained from RVCA Hydraulic Model - Station 6016 (Hydrograph from Node Foster routed to Node at Cedarview Road)



Legend

- Ken-BU storage
- Ken-BU MH
- Ken-BU Pond
- Ken-BU Outfalls
- Ken-BU Pipe
- Ken-BU Major System
- Ken-BU Channel
- Ken-BU to FC (Fraser Clarke) and JR(Jock River)

Kennedy Burnett Sub-catchment

- Kennedy Burnett (Ken-BU)

Google Hybrid

File name:

Figure F4 - Kennedy Burnett Sub-catchments.pdf

XS 3633 Cross Section at station 3633

KB-01A
40.82 ha
Ref. : 1

Area ID
Area (ha)
Reference Number

J.F. Sabourin and Associates Inc.
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david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

TITLE :

Figure F4 - Kennedy Burnett Sub-catchments

Table F4 - Kennedy Burnett Sub-catchments

PROJECT NO.	1474
DRAWN:	MM
DATE:	Mar. 2021

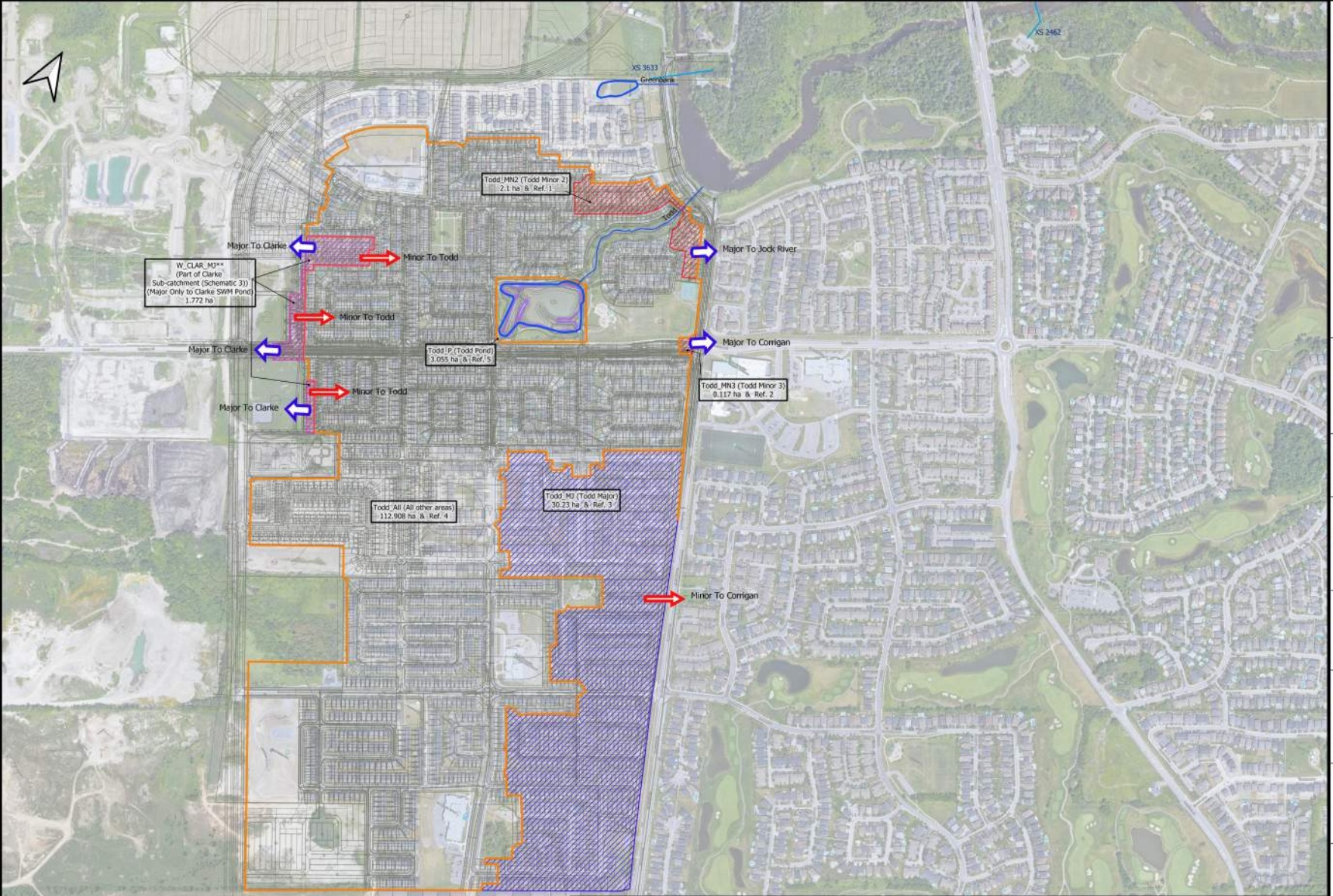
Ref.	ID KENNEDY-BURNETT	Area (ha)	Runoff Coef. [1]	Zero Imperv [1] (%)	Slope [1] (%)	Equivalent Width [1] (m)	Flow Length [1] (m)	Percent Routed [1] (%) (Pervious)	TIMP [2]	XIMP [2]	LGI: Length (m) =SQRT (Area*10000/1.5)	SLPP (%)	SLPI [2] (%)	Minor System Criteria [1]	Major System Criteria [1]	Major and Minor System To	DUALHYD parameters				ROUTE RESERVOIR					ROUTE CHANNEL (Station 3633)					
																	Major System	Minor System	Max. Release Rate [2] (cms)	Storage [2] (m^3)	NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
Existing Subcatchments to KB-SWMF																														
1	KB-01A	40.82	0.49	50%	0.97%	1879	220	76%	0.408	0.09792	521.664	0.5	0.5	10 L/s/inlet & 15 L/s/inlet ICDs	No MS flows to KB-SWMF	KB-01A-S	KB-01A-MJ	KB-01A-MN	3.6	4995	KB-P1 = ["KB-01A-S" + "KB-01B-S" + "KB-01C-S" + "KB-03-S" + "KB-04-S" + "KB-05" + "KB-06-S" + "KB-11-S" + "KB-15" +"S1"]	KB-P1R	KB-P1ovf	0.076	0.003	SN_KB (Total Flows before Station 3633)	N_TO	650	0.0498		
2	KB-01B	31.1	0.46	50%	0.42%	312	1000	50%	0.375	0.1875	455.339	0.42	0.42	10 L/s/inlet & 15 L/s/inlet ICDs	No MS flows to KB-SWMF	KB-01B-S	KB-01B-MJ	KB-01B-MN	1.585	6075				0.088	0.006						
3	KB-01C	13.78	0.49	50%	0.50%	403	335	50%	0.409	0.2045	303.095	2.0	0.5	10 L/s/inlet & 15 L/s/inlet ICDs	No MS flows to KB-SWMF	KB-01C-S	KB-01C-MJ	KB-01C-MN	1.35	1880				0.136	0.011						
4	KB-03	84.78	0.48	50%	0.63%	647	1300	50%	0.394	0.197	751.798	2.0	0.63	10 L/s/inlet & 15 L/s/inlet ICDs	No MS flows to KB-SWMF	KB-03-S	KB-03-MJ	KB-03-MN	5.27	15500				0.301	0.017						
5	KB-04	6.95	0.80	40%	0.50%	55	1265	100%	0.85	0.85	215.252	2.0	0.5	Controlled to 503 L/s (approx. 5-year inlet capture rate)	MS flows stored on-site	KB-04-S	KB-04-MJ	KB-04-MN	0.503	1972				0.454	0.027						
6	KB-05	5.19	0.65	0%	2.00%	51	1000	100%	0.93	0.93	186.011	2.0	0.50	10-year inlet capture rate for storm sewers	MS flows to KB-SWMF	KB-P1								0.631	0.041						
7	KB-06	12.93	0.81	40%	4.75%	217	600	100%	0.873	0.873	293.598	2.0	4.75	Controlled to Qcap (1350mm) 1,760 L/s (approx. 5-year inlet capture rate)	MS flows stored on-site	KB-06-S	KB-06-MJ	KB-06-MN	2.262	1950				1.173	0.068						
8	KB-11	4.03	0.67	50%	2.00%	116	350	100%	0.675	0.675	163.911	2.0	2.0	Controlled to 577 L/s (approx. 5-year inlet capture rate)	MS flows to KB-SWMF	KB-11-S	KB-11-MJ	KB-11-MN	0.577	597				1.91	0.111						
9	KB-15	2.15	0.90	90%	0.30%	476	45	100%	0.79	0.79	119.722	2.0	0.3	Uncontrolled		KB-P1								4.847	0.231						
10	S1	4.99	0.65	0	0.02	50	1000	1	0.93	0.93	182.3915203	2	2	10-year inlet capture rate for storm sewers	MS flows to KB-SWMF	KB-P1								9.813	0.436						
																								12.134	0.617						
																								12.438	0.732						
																								12.424	0.811						
																								12.425	0.894						
20	KB-16_1	2.800	0.900	0.900	0.003	550.000	50.000	1.000	0.750	0.750	136.626	2.000	0.300	Uncontrolled		KB-P3					KB-P3 = [KB-Pond2[4]+ KB-16_1]	KB-P3R	KB-P3ovf	0.051	0.002					-29.24	91
																								0.048	0.003					-27.41	90.5
																								0.057	0.029					-25.64	90
																								0.089	0.045					-23.74	89.5
																								0.133	0.069					-22	89.26
																								0.199	0.106					-20	88.51
																								0.321	0.172					-19	88.32
																								1.029	0.306					-15	88.1
																								4.036	0.527					-10	88.11
																								8.332	0.761					-5	88.17
																								11.727	0.941					0	88.27
																								14.125	1.067					5	88.19
																								15.675	1.149					10	88.06
																								16.555	1.196					15	88.48
																								16.911	1.214					16	88.7
19	KB-16_2	3.42	0.9	0.9	0.003	672	50	1	0.71	0.71	150.9966887	2	0.3	Uncontrolled		KB-P2								0.053	0.005					23.74	89.5
																								0.132	0.009					24.68	90
																								0.269	0.014					25.57	90.5
																								0.455	0.023					26.5	91
																								0.699	0.037						
																								0.947	0.056						
																								1.853	0.09						
Proposed Subcatchments to KB-SWMF																															
11	KB-07	10.86	0.8	0.5	0.02	209	525	1	0.86	0.86	269.072	2.0	2.0	5-year inlet capture rate (3-hour Chicago)	MS flows to KB-SWMF	KB-07-S	KB-07-MJ	KB-07-MN	2.094	1378				2.712	0.146						
12	KB-08	6.61	0.65	0.5	0.02	133	500	1	0.64	0.64	209.921	2.0	2.0	5-year inlet capture rate (3-hour Chicago)	MS flows to KB-SWMF	KB-08-S	KB-08-MJ	KB-08-MN	1.058	787	KB-P2=["KB-Pond1[3]in + "KB-07-S"+ "KB-08-S"+ "KB-09"+ "KB-10_1"+ "KB-10_2"+ "KB-12-S"+ "KB-13-S"+ "KB-14-S" + "KB-16_2"]	KB-P2R	KB-P2ovf	6.626	0.287						
13	KB-09	2.6	0.8	0	0.02	70	500	1	0.86	0.86	131.656	2.0	2.0	10-year inlet capture rate for storm sewers	MS flows to KB-SWMF	KB-P2								11.228	0.515						
14	KB-10_1	2.37	0.8	0	0.02	64	500	1	0.86	0.86	125.698	2.0	2.0	10-year inlet capture rate for storm sewers	MS flows to KB-SWMF	KB-P3								14.885	0.738						
15	KB-10_2	1.14	0.8	0	0.02	57	200	1	0.86	0.86	87.178	2.0	2.0	10-year inlet capture rate for storm sewers	MS flows to KB-SWMF	KB-P4								16.473	0.893						
16	KB-12	4.86	0.75	0.3	0.02	227	215	1	0.79	0.79	180.000	2.0	2.0	5-year inlet capture rate (3-hour Chicago)	MS flows to FC-Drain	KB-12-S	KB-12-MJ	KB-12-MN	0.8665	632				17.311	0.998						
17	KB-13	10.19	0.65	50%	2.00%	227	450	100%	0.64	0.64	260.640	2.0	2.0	5-year inlet capture rate (3-hour Chicago)	MS flows to KB-SWMF	KB-13-S	KB-13-MJ	KB-13-MN	1.722	1077				17.633	1.063						
18	KB-14	5.47	0.65	50%	2.00%	121	450	100%	0.64	0.64	190.962	2.0	2.0	5-year inlet capture rate (3-hour Chicago)	MS flows to KB-SWMF	KB-14-S	KB-14-MJ	KB-14-MN	0.8734	631				17.634	1.112						
Existing and Proposed Subcatchments Total Area to KB-SWMF (ha)										257.04																					
EXISTING / PROPOSED SUBCATCHMENTS TO FRASER-CLARKE DRAIN																															
21	FC-01	8.03	0.53						0.47	0.47	231.373	2.0	1.0	Controlled to 756 L/s	No MS flows to KB-SWMF	FC-01-S	FC-01-MJ	FC-01-MN	0.756	714											
22	FC-02	16.05	0.85						0.93	0.93	327.109	2.0	1.0	5-year inlet capture rate (3-hour Chicago)	MS flows to FC-Drain	FC-02-S	FC-02-MJ	FC-02-MN	1.159	2385											
23	FC-03	7.37	0.65						0.64	0.64	221.660	2.0	1.0	5-year inlet capture rate (3-hour Chicago)	MS flows to FC-Drain	FC-03-S	FC-03-MJ	FC-03-MN	0.358	1131											
24	FC-04	12.87	0.65						0.64	0.64	292.916	2.0	1.0	5-year inlet capture rate (3-hour Chicago)	MS flows to FC-Drain	FC-04-S	FC-04-MJ	FC-04-MN	0.741	1794											
Existing / Proposed Subcatchments Total Area to Fraser-Clarke Drain (ha)										44.32																					
PROPOSED SUBCATCHMENTS TO JOCK RIVER																															
25	JR-01	8.24	0.65						0.64	0.64	234.379	2.0	1.0	5-year inlet capture rate (3-hour Chicago)	MS flows to JR River	JR-01-S	JR-01-MJ	JR-01-MN	0.563	1040											
26	JR-02	1.59	0.65						0.64	0.64	102.956	2.0	1.0	5-year inlet capture rate (3-hour Chicago)	MS flows to JR River	JR-02-S	JR-02-MJ	JR-02-MN	0.153	153											
Proposed Subcatchments Total Area to Jock River (ha)										9.83																					

[1] PCSWMM parameters as per KENNEDY-BURNETT STORMWATER MANAGEMENT FACILITY RETROFIT, DETAILED DESIGN REPORT, NOVATECH June, 2020

[2] SWMHYMO parameters as per JFSA P1474-16, Dec.,2020, the parameters are based on PCSWMM parameters as per KENNEDY-BURNETT STORMWATER MANAGEMENT FACILITY RETROFIT, DETAILED DESIGN REPORT, NOVATECH June, 2020

[3] KB-Pond1 = ["KB-P1R"+"KB-P1ovf"]

[4] KB-Pond2 = ["KB-P2R"+"KB-P2ovf"]



Ref.	Name ID (Todd)	Area (ha)	Major System To	Minor System To	T. Imperv.	XIMP	CN	LSR Length (m) =SQRT (Area*10000/ 1.55)	Slope (%)	ROUTE RESERVOIR NHYDm	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha m)	ROUTE CHANNEL (Station 2462) NHYDm	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	TODD_MN2	2.1	Jock River (Station 2462)	Todd	0.57	0.53	77	118.322	1	TODD_MN2	TODD_MN2n	TODD_MN2j	0.268	0.0001*						
2	TODD_MN3	0.117	Corrigan	Todd	0.57	0.53	77	27.928	1	TODD_MN3	TODD_MN3n	TODD_MN3j	0.016	0.0001*						
3	TODD_MJ	30.23	Todd	Corrigan	0.64	0.52	77	448.925	1	TODD_MJ	TODD_Min	TODD_MJj	3.314	0.0001*						
4	TODD_ALL	112.908	Todd	Todd	0.57	0.52	77	887.594	1											
5	TODD_P	3.055	Todd	Todd	0.63	0.63	77	142.712	1	"TODD" = ("TODD_MN2n"+ "TODD_MN3n"+ "TODD_MJ"+ "TODD_P"+ "TODD_ALL"+ "W_CLAR_Min"**)	MS_P3	P3-OVF	0.014 0.048 0.061 0.08 0.088 0.109 0.118 0.122 1.972 9.135 15.608 19.256 27.282 40.957 56.372 73.349 85.469 104.771	0.155 0.394 0.56 0.909 1.089 1.652 1.952 2.099 2.289 2.598 2.826 2.942 3.181 3.35 3.929 4.317 4.579 4.977	SN_TO = ["Greenlif"(Greenbank Pond)+ "MS_P3"+"P3-OVF"+ "TODD_MN2j"+ "A2-MJ"***)	N_TO	280	0.033	-83.32 -81.36 -79.12 -76.13 -20.46 -19.36 -18.51 -17.72 -11.95 -0.11 11.49 17.72 19.74 21.22 22.68 24.28 26.79 71.98 80.62	90 89.5 89 88.5 88 87.5 87 86.5 85.24 85.12 85.2 86.5 87 87.5 88 88.5 89 90 90.5
	Total	148.41																		

* Small storage was assumed to allow overflow and direct the flow towards minor and major systems

** "W_CLAR_Min" is the minor system from the major system area(Area = 1.772 ha & TIMP = 0.59 & XIMP = 0.46 & CN = 75 & Slope = 1% &Outflow = 0.213 cms)in Clarke sub-catchment (Schematic 3) to Jock River (Station 2462)

*** "A2-MJ" is the major system from A2 area (Area = 25.5 ha & TIMP = 0.52 & XIMP = 0.42 & CN = 75 & Slope = 1% & Storage = 924 cu-m & Flow rate = 1.818 cms) in Corrigan sub-catchment (Schematic 1) to Todd sub-catchment

Legend

- Channel Cross Sections
- SWMF Drains
- SWMF ponds
- Sub-catchments
  - Todd
  - Todd Minor
  - Todd Major
  - Todd Pond Boundary
  - W_CLAR_Major
  - Todd-Greenbank-CAD
- Google Hybrid

File name:

Figure F5 -Todd Sub-catchments.pdf

Major System

Minor System

XS 2462 — Cross Section at station 2462

Todd_P (Todd Pond) 3.055 ha & Ref. — Area ID / Reference Number / Area (ha)

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DSEL
david schaeffer engineering ltd

SCALE :

0 250 500 m

PROJECT :

BCDC - Quantity Control Study

TITLE :

Figure F5 -Todd Sub-catchments

Table F5 -Todd Sub-catchments

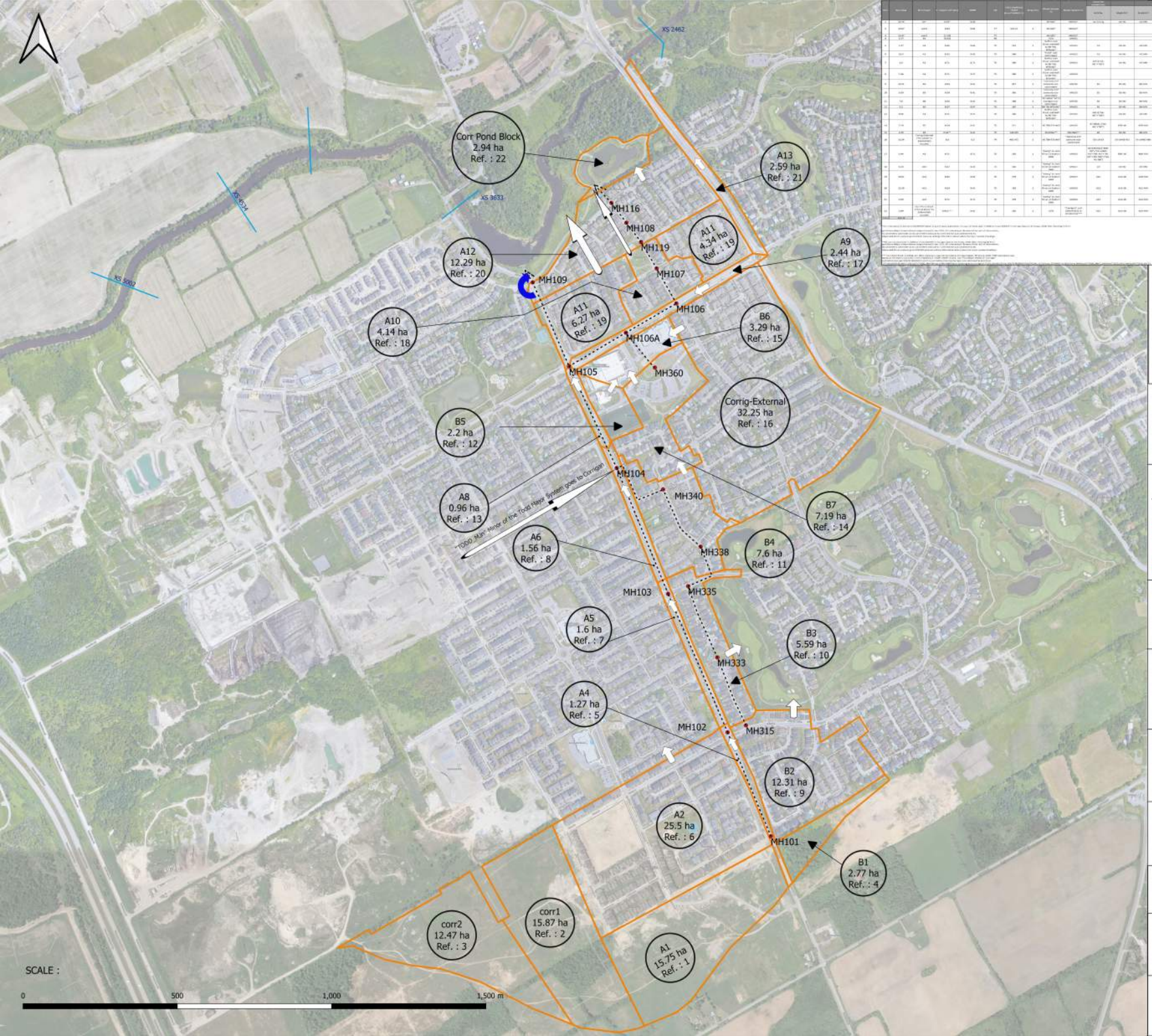
PROJECT NO.	1474-16
DRAWN:	MM
DATE:	Mar. 2021

Ref.	Name ID (Todd)	Area (ha)	Major System To	Minor System To	T. Imperv.	XIMP	CN	LGI: Length (m) =SQRT (Area*10000/1.5)	Slope (%)	ROUTE RESERVOIR					ROUTE CHANNEL (Station 2462)					
										NHYDin	NHYDout	NHYDovf (OVERFLOW)	Outflow (cms)	Storage (ha-m)	NHYDin	NHYDout	LENGTH (m)	SLOPE (%)	DISTANCE (m)	ELEVATION (m)
1	TODD_MN2	2.1	Jock River (Station 2462)	Todd	0.57	0.53	77	118.322	1	TODD_MN2	TODD_MN2n	TODD_MN2j	0.268	0.0001*						
2	TODD_MN3	0.117	Corrigan	Todd	0.57	0.53	77	27.928	1	TODD_MN3	TODD_MN3n	TODD_MN3j	0.016	0.0001*						
3	TODD_MJ	30.23	Todd	Corrigan	0.64	0.52	77	448.925	1	TODD_MJ	TODD_MJn	TODD_MJj	3.314	0.0001*						
4	TODD_ALL	112.908	Todd	Todd	0.57	0.52	77	867.594	1											
5	TODD_P	3.055	Todd	Todd	0.63	0.63	77	142.712	1	"TODD" = ["TODD_MN2n"+ "TODD_MN3n"+ "TODD_MJj"+ "TODD_P"+ "TODD_ALL"+ "W_CLAR_MJn"**]	MS_P3	P3-OVF	0.014 0.048 0.061 0.08 0.088 0.109 0.118 0.122 1.972 9.135 15.608 19.256 27.282 40.957 56.372 73.349 85.469 104.771	0.155 0.394 0.56 0.909 1.089 1.652 1.952 2.099 2.269 2.598 2.826 2.942 3.181 3.55 3.929 4.317 4.579 4.977	SN_TO = ["GreenB" (Greenbank Pond)+ "MS_P3"+"P3-OVF"+ "TODD_MN2j"+ "A2-MJ"***]	N_TO	280	0.033	-83.32 -81.36 -79.12 -76.13 -20.46 -19.36 -18.51 -17.72 -11.95 -0.11 11.49 17.72 19.74 21.22 22.68 24.28 26.79 71.98 80.62	90 89.5 89 88.5 88 87.5 87 86.5 85.24 85.12 85.2 86.5 87 87.5 88 88.5 89 90 90.5
Total		148.41																		

* Small storage was assumed to allow overflow and direct the flow towards minor and major systems

** "W_CLAR_MJn" is the minor system from the major system area(Area = 1.772 ha & TIMP = 0.59 & XIMP = 0.46 & CN = 75 & Slope = 1% &Outflow = 0.213 cms)in Clarke sub-catchment (Schematic 3) to Jock River (Station 2462)

*** "A2-MJ" is the major system from A2 area (Area = 25.5 ha & TIMP = 0.52 & XIMP = 0.42 & CN = 75 & Slope = 1% & Storage = 924 cu-m & Flow rate = 1.818 cms) in Corrigan sub-catchment (Schematic 1) to Todd sub-catchment



File name:

Figure F6 - Corrigan Sub-catchments.pdf

Major System

Overflow

Legend

Channel Cross Section

Corrigan-Pipe Line

Corrigan-MH

Corrigan Drainage Boundaries

Corrigan Drainage Boundaries

A1
15.75 ha
Ref. : 1

Area ID

Area (ha)

Reference Number

XS 0

Cross Section at station 0

J.F. Sabourin and Associates Inc.
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david schaeffer engineering ltd

PROJECT :

BCDC - Quantity Control Study

TITLE :

Figure F6 - Corrigan Sub-catchments

Table F6 - Corrigan Sub-catchments

PROJECT NO.	1474
DRAWN:	MM
DATE:	Mar. 2021

Ref.	Area (ha)	ID Corrigan	T. Imperv. [TP (hr)]	XIMP	CN	LGI: Length (m) =SQRT (Area*10000 /1.5)	Slope (%)	Major System To	Minor System To	DUALHYD parameters					DIVERT HYD				ROUTE PIPE						ROUTE CHANNEL (Station) [ROUTE RESERVOIR]						
										NHYDin	MajNHYD	MinNHYD	Max. Release Rate (cms)	Storage (m^3)	NHYDin	outflow hydrographs (NHYDs)	NIDout	QTOTAL (cms)= QIDi + QIDii	NHYDin	NHYDout	Diameter (mm) [Height (mm)]	Width (mm)	LENGTH (m) with 0.013 Manning Coef.	SLOPE (m/m)	NHYDin	NHYDout	[NHYDovf]	LENGTH (m)	SLOPE (%)	DISTANCE (m) [Outflow (cms)]	ELEVATION (m) [Storage (ha-m)]
1	15.75	A1*	0.52*	0.42				MH101*	MH101*	A1-Corrig	A1-MJ	A1-MN	1.818	924					MH101= ["A1-MJ" +"A1-MN" +"corr1-MJ" +"corr1-MN" +"corr2"+"B1" +"A4-MN"]	101-102	1050		368	0.0054	Corrigan= ["116-corrig"+ "Pond-Block"]	Co-P	Co-P-OVF			[0.015]	[0.04118]
2	15.87	corr1	0.63	0.63	77	325.27	1	MH101*	MH101*																					
3	12.47	corr2	[1.10]		77			MH101*	MH101*																					
4	2.77	B1	[0.23]		56			N/A	MH101																				[0.03]	[0.08297]
5	1.27	A4	0.65	0.65	75	253	1	Half to Jock River and Half to B6 "B6-B7ExMJ"	MH101	A4	A4-MJ	A4-MN	0.405	68															[0.045]	[0.12537]
6	25.5	A2	0.52	0.42	75	566	1	"Todd" sub-catchment	MH102	A2	A2-MJ	A2-MN	1.818	924					MH102= ["A2-MN" +"101-102"]	102-103	1500		504	0.0028						[0.06]	[0.16837]
7	1.6	A5	0.71	0.71	75	300	1	Half to Jock River and Half to B6 "B6-B7ExMJ"	MH103	A5T=["A4-MJ"+"A5"]	A5-MJ	A5-MN	0.357	60															[0.075]	[0.21199]
8	1.56	A6	0.71	0.71	75	280	1	Half to Jock River and Half to B6 "B6-B7ExMJ"	MH104										MH103= ["102-103" +"A5-MN"]	103-104	1650		438	0.0046						[0.09]	[0.27545]
9	12.31	B2	0.54	0.41	75	417	1	"JOCKVA-TO" Jockvale sub-catchment	MH315	B2	B2-MJ	B2-MN	1.029	508					B2-MN	315-333	1200		254	0.001						[0.105]	[0.34650]
10	5.59	B3	0.54	0.41	75	345	1	"JOCKVA-TO" Jockvale sub-catchment	MH333	B3	B3-MJ	B3-MN	0.459	227					MH333= ["B3-MN" +"315-333"]	333-335	1200		251	0.001						[0.12]	[0.42049]
11	7.6	B4	0.54	0.41	75	388	1	"B7-B4MJ" B7 in Corrigan sub-catchment	MH340	B4	B5-MJ	B4-MN	0.655	323					333-335	335-338	1200		185	0.001						[0.135]	[0.50188]
12	2.2	B5	0.57	0.57	75	187	1	B6 "B6-B7ExMJ"	MH105	B5	B5-MJ	B4-MN	0.26	250		A8-MJ-JR			335-338	338-340	1350		233	0.001						[0.186]	[0.60307]
13	0.96	A8	0.71	0.71	75	186	1	Half to Jock River and Half to B6 "B6-B7ExMJ"	MH105	A8T=["A6-MJ"+"A8"]	A8-MJ	A8-MN	0.238	40	A8-MJ	A8-MJ-B6	2	100 = 50 + 50	MH340= ["338-340" +"B4-MN"]	340-104	1650		240	0.0015						[2.11]	[0.79083]
14	7.19	B7	0.54	0.41	75	211	1	B6 "B6-B7ExMJ"	MH360	B7-B4MJ=["B4-MJ"+"B7"]	B7R-MJ	B7R-MN	0.629	311					MH104T= ["340-104" +"MH104"****]	104-105	[2100]	2400	380	0.001						[5.874]	[1.00271]
15	3.29	B6	0.54**	0.41	75	148.099	1	MH106A**	MH106A**	B6	B6-MJ	B6-MN	0.064	5484					B7R-MN	360-106A	1050		167	0.001						[11.395]	[1.29643]
16	32.54	Corrig-External ("EX-LAND" in SWMHYMO model)	0.5	0.5	74	465.475	1	B6 "B6-B7ExMJ"	"JOCKVA-TO" Jockvale sub-catchment	EX-LAND	EX-LAND-MJ	X-LAND-MI	2.275	1365					MH105-B6	105-106A	1800		208	0.001						[18.77]	[1.62054]
17	2.44	A9	0.71	0.71	75	262	1	"corrig" to Jock River at Station 2462	MH106	B6-B7ExMJ=["B7R-MJ"+"EX-LAND-MJ"+"B5-MJ"+"B6-MJ"+"B6-MN"+"A8-MJ-B6"]	B6R-MJ	B6R-MN	0.064	5484	MH105= ["104-105"+ "B5-MN"+ "A8-MN"+ "TODD_MN3j"]	MH105-JR	2	3 = 0 + 3	MH106A= ["360-106A" +"105-106A" +"B6R-MN" +"B6R-MJ"]	106A-106	1800		190	0.001						[28.143]	[1.97516]
18	4.14	A10	0.47	0.35	75	183	1	"corrig" to Jock River at Station 2463	MH107	A9	A9-MJ	A9-MN	0.547	0		MH105-B6		100 = 96.9 + 3.1(This value is obtained from Corrigan Report, IBI Group, 2008)	MH106= ["106A-106" +"A9-MN"]	106-107	1800		122.5	0.001	corrig= ["Co-P-OVF"+ "Co-P"+ "N_TO"+ "MH105-JR"+ "A8-MJ-JR"+ "A9-MJ"+ "A10-MJ"+ "A11-MJ"+ "A12-MJ"+ "A13-MJ"]	N_MI		580	0.4448	-83.32	90
19	10.61	A11	0.62	0.53	75	379	1	"corrig" to Jock River at Station 2464	MH107	A10	A10-MJ	A10-MN	0.31	228					MH107= ["106-107" +"A10-MN" +"A11-MN"]	107-119	1800		114	0.0012						-81.36	89.5
20	12.29	A12	0.54	0.41	75	183	1	"corrig" to Jock River at Station 2465	MH108	A11	A11-MJ	A11-MN	0.993	556					107-119	119-108	1800		65.8	0.0012						-79.12	89
21	2.59	A13	0.71	0.71	75	379	1	"corrig" to Jock River at Station 2466	MH108	A12	A12-MJ	A12-MN	1.029	672					MH108= ["119-108" +"A13-MN" +"A12-MN"]	108-116	1800		76.6	0.0013						-76.13	88.5
22	2.94	Corr Pond Block ("Pond-Block" in SWMHYMO model)	0.415***	0.41	75	183	1	N/A	"Corrigan" just before ROUTE RESERVOIR ***	A13	A13-MJ	A13-MN	0.571	0					108-116	116-corrig	1800		79.5	0.0013						-20.46	88
																														-19.36	87.5
																														-18.51	87
																														-17.72	86.5
																														-11.95	85.24
																														-0.11	85.12
																														11.49	85.2
																														17.72	86.5
																														19.74	87
																														21.22	87.5
																														22.68	88
																														24.28	88.5
																														26.79	89
																														71.98	90
																														80.62	90.5
Total	183.48																														

*A1 is named as A1-Corrig in SWMHYMO Model to avoid name duplication. A1 was not developed in 2008 so it was NASHYD in Corrigan Report, IBI Group, 2008. After checking A1 from geoOttawa (https://maps.ottawa.ca/geoottawa/)in Jan. 2021, A1 is developed. Because of the lack of information, A1 parameters were taken as A2 parameters because A2 is the nearest sub-catchment to A1. Major and Minor systems go to MH101 because lacking information about where the major system should go.

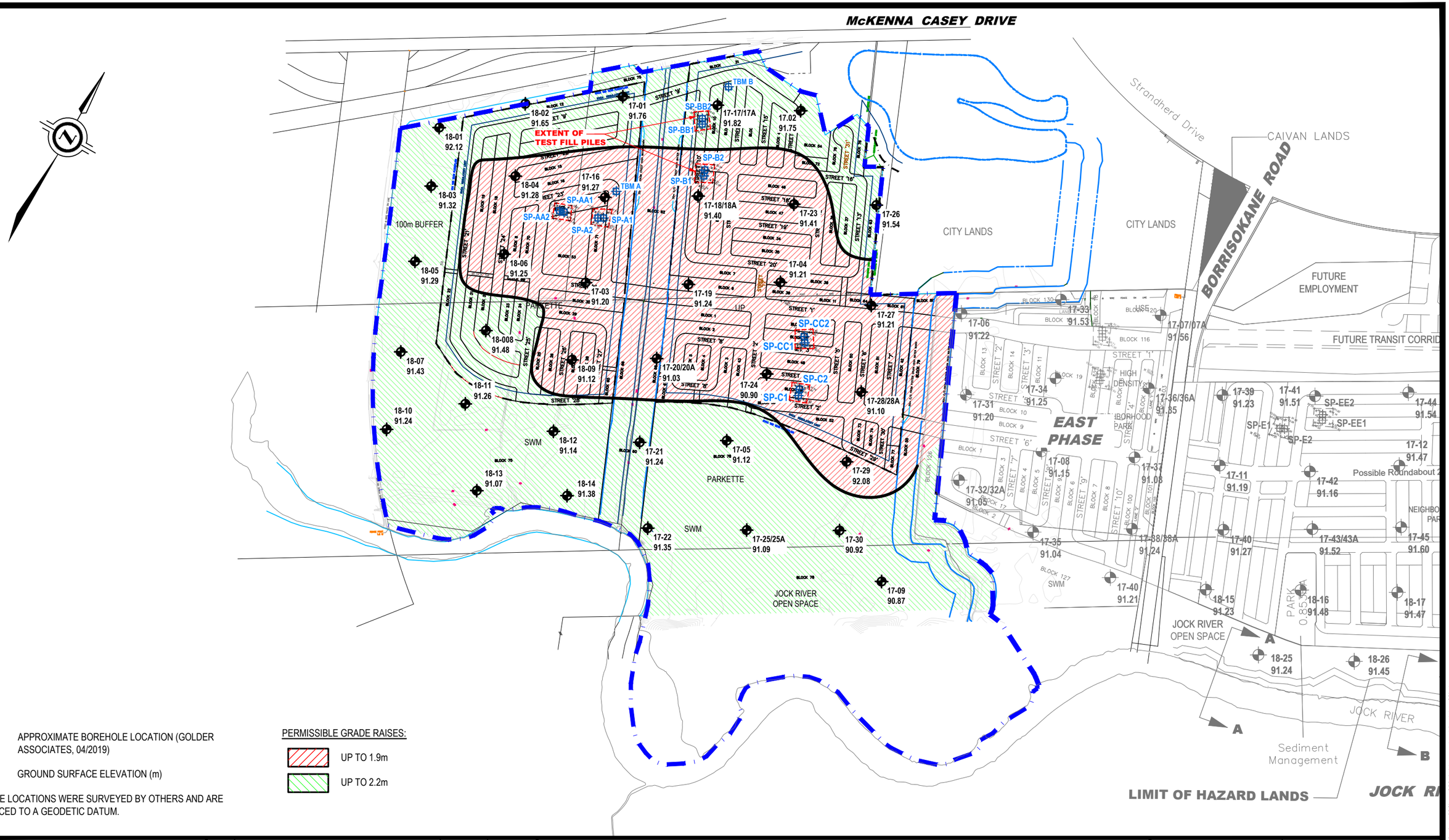
**B6 was not developed in 2008 so it was NASHYD in Corrigan Report, IBI Group, 2008. After checking B6 from geoOttawa (https://maps.ottawa.ca/geoottawa/)in Jan. 2021, B6 is developed. Because of the lack of information, B6 parameters were taken as B7 parameters because B7 is the nearest sub-catchment to B6. Major and Minor systems go to MH106A because lacking information about where the major system should go.

*** 'Corr Pond Block' is added, Jan. 2021, because it was not included in Corrigan Report, IBI Group, 2008. TIMP calculation was based on the impervious area in 'Corr Pond Block'. TIMP = XIMP = 0.415. 'Corr Pond Block' drains to "Corrigan" just before Corrigan ROUTE RESERVOIR which is just before draining Corrigan sub-catchment to Jock River.

**** MH104=["A6-MN"+"103-104"+"TODD_MJn"(Minor of the Todd Major System goes to Corrigan)], TODD_MJ=30.230 ha, ROUTE RESERVOIR(OUTFLOW = 3.314 cms, STORAGE = 0.0001 ha-m, NHYDout=["TODD_MJn"] ,NHYDin=["TODD_MJ"], NHYDovf=["TODD_MJ"])

APPENDIX E

GEOTECHNICAL



LEGEND:

APPROXIMATE BOREHOLE LOCATION (GOLDER ASSOCIATES, 04/2019)

91.07 GROUND SURFACE ELEVATION (m)

BOREHOLE LOCATIONS WERE SURVEYED BY OTHERS AND ARE REFERENCED TO A GEODETIC DATUM.

PERMISSIBLE GRADE RAISES:

UP TO 1.9m

UP TO 2.2m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL
3	UPDATED TO LATEST CONCEPTUAL PLAN	08/12/2022	KP
2	GRADE RAISE RESTRICTIONS UPDATED	30/11/2021	KP
1	UPDATED TO LATEST CONCEPTUAL PLAN	19/10/2021	OC

CAIVAN COMMUNITIES

GEOTECHNICAL INVESTIGATION

PROP. RESIDENTIAL DEVELOPMENT - CONSERVANCY LANDS WEST

OTTAWA, ONTARIO

Title:

PERMISSIBLE GRADE RAISE PLAN

Scale: 1:5000	Date: 09/2019
Drawn by: MPG	Report No.: PG5036-2
Checked by: SD	Dwg. No.: PG5036-5
Approved by: SD	Revision No.: 3

11x17

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